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The second chance system: Results from the three cycles of the Youth in Transition Survey

REPORT

by:

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for:

Learning Policy Directorate
Strategic Policy and Research

April 2008



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1. Introduction

There is increasing emphasis on formal education in Canada as elsewhere in the developed (and developing) parts of the world. Much of the reason for this emphasis is on the importance not only of credentials (Thiessen 2001) but also of literacy and numeracy (Finnie and Meng 2006) to labour force participation and income. Post-secondary education (PSE) is playing an increasingly significant role in this process (HRDC 1998; Looker 2002) and many if not most Post-Secondary Education (PSE) programs require a minimum of a high school diploma (Canadian Council on Learning 2005:1). As Biggart (2000) notes “In a rapidly changing labour market, qualifications are increasingly necessary, and this is a trend that ... is likely to continue.” (P.11). So, the question becomes, what happens to those who leave school early? Which of them return for a “second chance”?

A variety of so called second chance options are available to young people who drop out of school but later wish to continue their formal education. This analysis examines data from three cycles of the older cohort of the Youth in Transitions Survey (YITS) to identify the characteristics of individuals who use the second chance system to complete high school or pursue PSE. On the basis of this analysis, the key conclusions are highlighted and policy suggestions are made.

The report is organized as follows. It starts with a review of the relevant literature that examines the factors related to both early school leaving and accessing second chance options. After a description of the data and variables used in the analysis, a brief overview of the sample characteristics is given.

Central to these descriptions is the measure of the key dependent variable, which is the “dropout status”. Respondents are classified into three groups: dropouts who did not return to education (as of the third YITS data collection), those who dropped out but returned, whom called “second chance youth”, and those who never left their formal schooling. Bivariate analysis document the variables, available in the YITS, that appear to be related to this dependent variable.

The heart of the analysis is the results of the multinomial logistic regression, which allowed the simultaneous control of the set of variables which were found, at the bivariate level, to be associated with dropout status. The final section of the report summarizes the key research findings and discusses some policy implications of these results.

2. Existing research literature

2.1 Importance of high school completion and second chance options

One of the points emphasized in the research literature is that dropping out has repercussions, not only for the individuals who drop out but also for society. Implications for the individuals include problems and limitations in the labour force because of their lower literacy (Finnie and Meng 2006:11; OECD 1998) and skill levels (HRDC 2000a) as well as problems of integration into the “new economy and society” (Bowlby and McMullen 2002:50; OECD 2000). Accordingly, they are less likely than others to be employed (Bushnik, Barr-Telford, and Bussière 2004; Canadian Council on Learning 2005:3; HRDC 2000a:37; Zeman, Knighton, and Bussière 2004) and less likely to get “good jobs” (de Broucker 2005). If they are employed, they tend to earn lower incomes (Berkthold, Geis, and Kaufman 1998:44; Prince and Jenkins 2005:24) and to have less secure employment (Ball and Lamb 2001; HRDC 2000a:36).

The research also emphasizes repercussions for the larger society when individuals fail to complete secondary schooling (Ball and Lamb 2001; Dynarski and Gleason 1999; HRDC 2000a). Youth dropouts have been linked to crime, alcohol abuse and illegal drug use (HRDC, 2000: 22) as well as negative health outcomes and therefore health care budgets (Canadian Council on Learning, 2005: 6), death rates and higher numbers on social assistance (Martin and Halperin 2006). Indeed, Chuang (1997) claims that the number of high school dropouts is among the most pressing social problems facing the U.S.

The flip side of this picture of the impact of leaving school is the benefit to society, financial and otherwise (Statistics Canada and CMEC 2001) if rates of dropping out are reduced. The European Commission (2001) argues that the fight against school failure is “vital for a successful, sustainable, knowledge based society and a democracy to which all can contribute” (P. 4).

In light of the benefits of staying in school and the price both the individual and society apparently pay for early school leaving, it is not surprising that there is considerable interest in and discussion of the importance of “second chance” options which allow individuals to obtain a high school diploma (or its equivalent) or to directly pursue Post-secondary education (PSE) without such a credential (OECD 2000). Indeed, Almeida et al., (2006) argue that “In a society that values individual reinvention and multiple makeovers, it seems a given that we should provide a second chance to young people who drop out of high school and then make the effort to continue their education.” (P.1). One of the reasons why Canada has a higher secondary school completion rate than many other Organisation for Economic Co-operation and Development (OECD), countries has been attributed to the availability of second chance options in Canada (Gingras, Bowlby, and Pilon 2001).

Of course, providing such second chance options often means that the process of completing one's education, an already lengthy process, is further prolonged (Entwisle, Alexander, and Olson 2004; OECD 2000). Depending on the relative costs associated with staying in school versus pursuing second chance options (such as the General Education Diploma – GED) having these alternative options available might encourage some youth to drop out of the formal school setting (Tyler 2003). Further, some have cautioned that the very factors that lead young people to drop out (their academic ability, low self esteem, lack of social skills or lack of foresight) “might also inhibit their performance in the labour force” (HRDC 2000a:35). Those who pursue second chance options at the PSE level may be less likely than others to complete that program (Prince and Jenkins 2005), raising questions about the usefulness of their return to schooling. Despite these concerns, providing second chance options is seen as important in an open system of education such as the Canadian one.

Before identifying those factors associated with successful interventions, it is important to identify those factors which the research literature has shown to affect first, dropping out and secondly, participation in the second chance system.

2.2 Factors affecting dropping out

There is a long history of research on factors affecting whether a young person will drop out of school before completing their high school certificate. This paper cannot do this rich literature justice, but will rather highlight some of the key factors that have been consistently found to affect this behaviour.

Gender is relevant to any discussion of early school leaving. This is true whether the analyses are from Canada (Bowlby and McMullen 2002; de Broucker 2005; Gingras, Bowlby, and Pilon 2001; HRDC 2000a; Shaienks, Eisl-Culkin, and Bussière 2006), the U.K. (Biggart 2000), the U.S. (Chuang 1997; Lamb and Rumberger 1999; Wayman 2001), or Australia (Chuang 1997; Lamb and Rumberger 1999; Ross and Gray 2005; Wayman 2001). Males are consistently more likely than females to drop out of school without a high school diploma, and males tend to leave at an earlier age. Males and females also leave school for different reasons, males often for work and females to have a child (HRDC 2000a).

Another variable that has been found to be associated with early school leaving, time and again, is parental **socio-economic status** (SES) (Biggart 2000; Canadian Council on Learning 2005; Chuang 1997; de Broucker 2005; Dekkers and Claassen 2001; Gingras, Bowlby, and Pilon 2001; HRDC 2000a; Lamb and Rumberger 1999; Ross and Gray 2005; Wayman 2001). Students from lower SES households are much more at risk of dropping out of school before they have completed their secondary schooling. According to some research, those living in **single parent households** (Dekkers and Claassen 2001; Gingras, Bowlby, and Pilon 2001; Ross and Gray 2005) are also at risk, but this pattern could reflect their lower SES. Those in **rural areas** may be at a disadvantage (Canadian Council on Learning 2005; HRDC 2000a; Lamb and Rumberger 1999), but again it is important to control SES in analysis to identify the type of effects that are at work.

Race and ethnicity have an impact usually reflecting the relative status of different groups in a given society (Lamb and Rumberger 1999). Again it is unclear whether the effect is due to SES or race/ethnicity (Almeida, Johnson, and Steinberg 2006). Certainly there seems to be evidence that **aboriginal** students are much more at risk of dropping out than others in Canada (Canadian Council on Learning 2005; HRDC 2000a). Dropout rates for aboriginal youth have declined since 1998 but they are still high (especially for aboriginal males) compared to others, (Gingras, Bowlby, and Pilon 2001). This pattern has been documented in other countries as well (Ross and Gray 2005). Interestingly, there is some indication that dropout rates are no higher among **immigrants** than among those who are Canadian born (de Broucker 2005).

In terms of student characteristics, there is some limited research on the effects of **physical and other disabilities** (Gingras, Bowlby, and Pilon 2001; HRDC 2000a). These studies find those with disabilities to be more likely to drop out of high school. Not surprisingly, dropouts tend to report receiving relatively **poor marks** in school compared to non dropouts. Particularly important to dropout rates seems to be the effect of failing and having to **repeat a grade** (HRDC 2000a; Lamb and Rumberger 1999; Statistics Canada and CMEC 2001).

Student attitudes and behaviours have also been examined and are implicated in the process of dropping out, since, as several studies note, dropping out is better seen as “a process not a decision” (Chuang 1997; HRDC 2000a; Hurst, Kelly, and Princiotta 2004; Jeffries, Nix, and Singer 2002). Research has examined student disaffection and disengagement from school, as well as their attitudes to school (Biggart 2000; Dekkers and Claassen 2001; Gingras, Bowlby, and Pilon 2001). As one might expect, dropouts tend to be more disaffected, disengaged and have more negative attitudes to school.

While they have been studied in less detail, **peer influence** (Dekkers and Claassen 2001) has been seen as an issue for school dropouts, as has working an “excessive” number of hours while in school (Gingras, Bowlby, and Pilon 2001). Peers can also exert a positive influence if they feel education is important (HRDC 2000a).

The existence of pull as well as push factors is highlighted in Dekkers and Clausen’s (2001: 349) typology of dropouts. Not all youth necessarily define having left school without a diploma as a problem, suggesting that the consistently negative portrayal of early school leavers requires some modification (Dekkers and Clausen 2001). Nevertheless, there are still long term costs facing many dropouts and facing the society in which they live. In light of this fact, it is important to consider the factors that have been found to be associated with youth returning to school after dropping out – the second chance youth that are the focus of this analysis.

2.3 Factors affect dropouts returning to education – second chance youth

There is considerably less research on second chance options and who avails themselves of these options than there is on the initial process of dropping out of school. However, some patterns can be identified in the research that is available.

Many of the same factors as those related to dropping out in the first place are influential. So, dropouts who return tend to be from higher SES homes than those who do not return (Almeida, Johnson, and Steinberg 2006; Chuang 1997; Entwisle, Alexander, and Olson 2004; Ross and Gray 2005). More females than males return (Chuang 1997). Those with higher test scores are also more likely to take advantage of second chance options (Chuang 1997), although grades, per se, seem to have less effect (Berkthold, Geis, and Kaufman 1998).

As one researcher put it, “the very people most in need of further training are the least likely to pursue it.” (HRDC 2000:41). “The large majority of out-of-school youth have been impeded not only by poor schooling, but also by social, economic, and psychological barriers to effective learning” and therefore need multiple supports (Martin and Halperin 2006:2; see also Schwab 2001). So, a range of risk factors affect not only dropping out but also whether one returns to school.

Grade retention has a long-term negative impact; not only does it predict who will drop out, but also who among the dropouts will resume their schooling. Those who have repeated a grade are less likely to pursue second chance options (Entwisle, Alexander, and Olson 2004), suggesting there may be a long term stigma associated with repeating a grade. Age, and length of time out of school tend to have deterrent effects on a dropout returning to formal schooling (Chuang 1997).

Suh and Suh (2006) examine student attitudes and learning behaviours. They find that “students who drop out but are independent learners have a higher likelihood of completing a high school education after dropping out” (P.14). They also highlight the importance of good study skills among second chance youth.

2.4 Types of interventions

It is clear that in Canada there is no comprehensive system of interventions that one could call a “second chance” system (Crocker, 2001). Rather a variety of options are available in different parts of the country, targeting different groups of youth, with differing chances for sustainability. “They encompass traditional public schools, alternative learning centers, community based non-profit schools and programs, for-profit schools, federal [and local] funded efforts, community college, the adult education system and other social services” (Martin and Halperin 2006:1).

This situation contrasts with some of the more systematic programs that exist elsewhere. The Nordic countries have a concept of a “youth guarantee” which provides for every youth up to age 20 being entitled to an education at the upper secondary level. (Bowers et al. 1999: 32; see also Ross and Gray 2005). Denmark has “production schools”, publicly funded, to attract and train those youth uncertain about their career path as well as those who have dropped out of other forms of formal schooling (Lerman, 2000; Ross and Gray 2005). Norway has integrated apprenticeships into “new pathways” in secondary schools, as well as coop programs involving small firms (Lerman, 2000). Australia, the Netherlands and the U.K. have programs set up on the principle of requiring young job seekers to further their education, while providing them with an allowance to do so. Some Canadian provinces seem to be exploring similar options (Bower et al. 1999).

It is beyond the scope of this paper to give a comprehensive overview of the types of options available in Canada, but it is important to highlight some of them so that one can better understand what programs “second chance” youth are entering. Of course, at least some (perhaps many) of these young people do not enter any program that is specifically designed or designated as a second chance option. Rather, they are returning to the high school system they left, or pursuing post-secondary options that others with high school diplomas are entering. This point is important to keep in mind as in Canada it is often the students who pursue their “second chance”, rather than the system specifically giving them a “second chance”.

The literature highlights the difference between two types of organizational responses to the “dropout problem”. One involves targeted programs that are designed to reintegrate dropouts into the formal schooling system; some of these are at the K-12 level, some at the post-secondary. These, which are rarer in Canada than elsewhere, are designed specifically to give students a “second chance”. The other are more structural changes to the K-12 system, some designed to prevent dropping out (and alleviating the need for second chance options – see Finnie and Meng, 2006), some to re-attract those who have dropped out.

At least one researcher (Lerman 2000) is fairly critical of the more targeted programs, finding that they produce, at best, mixed results. Many of them are short-term programs, and he argues that long term interventions show “more promise” (P. ii). The importance of long-term interventions, or at least interventions that build on and reinforce each other, is emphasized in Thiessen, Cottrell and Looker (2005).

One of the issues with targeted programs is lack of any sort of systematic evaluation of their effectiveness (Mitchell and Waiwaiole 2003). If any evaluation is done, it often involves only testimonials of those who successfully complete the program. Also, given that some programs target students with multiple barriers to education, it is not clear what level of ‘success’ is realistic. See Currie et al. (2001) for a thoughtful discussion the challenge in defining “success” for youth with multiple risk factors, as well as the difficulties inherent in both quantitative and qualitative evaluations of intervention programs. On the other hand, various analysts see the multiple challenges facing some early school leavers as part of the reason why programs that target particular youth are important.

Some Australian programs that specifically target aboriginal students have been seen as successful in increasing the number of aboriginal youth who complete a high school diploma (Schwab 2001). Similar successes are noted in Canada (D'Oyley, Kakembo, McFarlane, Perry, Andruske, and George 2001; Stevenson 1998) and in the US (Jeffries et al., 2002).

Alternative schools obviously target those that have dropped out or are in danger of dropping out. These schools are designed to try and “help students overcome personal, family and social barriers that interfere with their ability to go to school and do well there” using counseling as the primary approach as well as smaller, more personal educational settings (Dynarski and Gleason 1999:2). Choice of teachers is especially important in alternative schools (Dynarski and Gleason, 1999), possibly more important than the curriculum per se. However, alternative schools struggle to coexist with regular schools and compete with them for resources and qualified staff.

Martin and Halperin (2006) review targeted second chance options in twelve communities in the US. They found that apparently successful programs include: extensive use of computers and related technology, flexible year-round learning, close relationships with teachers, career oriented goals and opportunities for employment, clear codes of conduct, intensive support services (including health care and child care) and a portfolio of options. It is important to note that they maintain that “many practices in successful alternative and second chance educational programs should be adopted by the ‘first chance’ system to improve student retention and academic success.” (Martin and Halperin, 2006:3).

This perspective is shared by those who argue for more structural approaches to early school leaving. The logic is that “Intensive assistance for those who do fall through the cracks can be more effective if the number of young people requiring early and intensive assistance is kept low in the first place.” (OECD 2000:107). A key focus of these structural approaches is prevention – which would include a whole gamut of activities in schools that are, at least to some extent, designed to keep students in school. Schools are, it seems, both part of the problem and part of the solution.

Others, however are more optimistic: “Policy makers can be reasonably confident that, when given society’s mandate and adequate resources to reconnect out-of-school youth and help them become productive and responsible citizens, committed leadership can, in fact, do the job and do it well” (Martin and Halperin 2006:165). Even without large scale change at the individual school level, there is evidence that system wide initiatives, such as raising the minimum school leaving age can reduce the proportion of dropouts (Oreopoulos 2005).

Computers and other forms of information and communication technology (ICT) play an important role in many alternative programs for dropouts (European Commission 2001; Martin and Halperin 2006). (For a thoughtful discussion of the use of ICTs with street youth see Karabanow and Naylor 2007). However, one issue that has arisen is that “sponsors and other community programs often seek to support ‘cutting edge’ technology, [so] adapting more dated technology to the needs of the disadvantaged gets crowded out by the search for technological novelty” (European Commission, 2001:21).

An important option for many youth is the opportunity to pursue some post-secondary education, whether it be in the form of trades training or access to community college and/or university level courses - although few, in fact, try for university (Zeman et al. 2004). Some community college programs have flexible admission procedures that allow students to enter without their high school diploma (Choy 2002), although there is concern that other programs do not admit students even if they have a GED (Almeidas et al. 2006). One compromise that seems to facilitate further education was having the GED or equivalent courses physically located on community college campuses (Dynarski and Gleason 1999).

2.5 Conceptualizing dropouts: Risk, resistance, resilience

While not a lot of attention is given to how dropouts and second chance youth are conceptualized, some themes can be drawn from the research and policy discussions. As is evident from the brief review of the literature above, particularly that dealing with dropouts, there is a lot of focus on and discussion of *risk*. Those who drop out are seen as “youth at risk” either because of their background characteristics, or because they are “at risk” of not completing their education (Crocker 2001). There is some debate about what exactly constitutes “risk”. Trudel and Puentas-Neuman, (2001) distinguish between risk and vulnerability. To them risk reflects the social situation or background of the child or youth, while the individual child may not be vulnerable. The distinction allows them to recognize protective factors that can be introduced that make a child or youth less vulnerable, even if exposed to risk. Schonert-Reichl (2001) views risk as a continuum rather than a dichotomy “at risk/not at risk”. She agrees that risk can be mitigated (or exacerbated) by interventions at the school level as well as in the home, but warns that given the multi-dimensional nature of many risks (or the multiple risk factors often facing particular individuals), targeting a single risk factor may be counterproductive. There is the challenge that to target youth at risk they must be identified (Lupart 2001) and yet the label itself can be problematic (D'Oyley et al. 2001; Wotherspoon and Schissel 2001).

Some researchers highlight the ways that dropouts can be seen as *resisting* the monolithic power of the formal school system. “School is not a socially neutral phenomena” (European Commission 2001:4). Those who are alienated from school may see themselves more as rebels than failures (Davey and Jamieson 2003). “Young people tend to leave school because they are alienated from schooling, they have negative experiences with teachers and find the curriculum irrelevant, uninteresting and too hard. It could, therefore, be counterproductive to force these young people to stay in school” (Te Riele 2000:9). One alternative school program for aboriginal youth (Munns and McFadden 2000) explicitly recognizes the powerlessness students often feel at school and the need for culturally sensitive interventions to counter the very understandable resistance that students have developed.

While much of the literature looks at the risks facing youth and their resistance to the formal education system, other research emphasizes the *resilience* of these same youth. Those who pursue second chance options are often seen as resilient given their actions in reconnecting with the formal education system. Indeed one study (Berkold, Geis, and Kaufman 1998) found that almost half of all dropouts they surveyed had not only considered but had actively looked into possible alternative school or GED options; almost a third had taken the initiative to talk to a counselor or social worker about their options. The vast majority of dropouts talked with their parents about returning to school. Those who leave early may revisit their decision after a few years and rethink its benefits (Dekkers and Claassen 2001). Terrisse (2001) claims that resilient children succeed despite adversity. The advantage of the concept of resilience, according to one researcher (Wayman, 2002) is that not only does this focus identify important additional information on what affects educational outcomes “these factors are ones that are more easily affected by educators and practitioners” (P. 176) than those that focus on risk factors. Further, a focus on resilience recognizes important individual variations in performance within an “at risk” group warning against labeling groups of children based on their demographic characteristics (Catterall 1998).

Therefore it is important not to only consider the risk factors facing an individual, but also the protective influences of supportive family, school and social environments. Recognizing the importance of these supports, leads to a call for integrated services that recognize the “multiple competencies that students bring with them or develop through schooling and other life experiences.” (Wotherspoon and Schissel 2001:20).

3. *Data and measures*

The data used to explore the factors that affect whether or not youth take advantage of the second chance options in Canada is from the older cohort of the nationally representative Youth in Transition Survey (YITS). This is a longitudinal survey which gathered information from youth, aged 18-20 in 2000 (cycle 1). These youth were resurveyed in two additional cycles of data collection undertaken in 2002 and 2004. The focus of this survey was on youth transitions, particularly the transitions from compulsory education. This survey (and the one of a younger cohort aged 15 in 2000) were designed to provide “policy relevant information on school-work transitions and on factors influencing pathways” (HRDC 2000b:4).

The sample design for the 18-20 year old cohort used the sampling frame from the Labour Force Survey (LFS), and included households that had participated in the LFS in the three years prior to the first cycle of data collection (see Statistics Canada 2003 for details). Computer assisted telephone interviews were conducted of households with a young person born in the years 1979 to 1981. Selected individuals were included in the YITS sample, provided they were living in either Canada or the United States at the time of the data collection. As is often the case with such samples, those in the territories, living on Indian Reserves, residents of institutions and those in correctional facilities were excluded. A total of 23,600 youth were surveyed during the first cycle, 18,800 in cycle 2, and 14,817 in cycle 3. It is important to note that, while the original sample was representative of the age cohort, attrition across cycles means the cycle 3 data are not necessarily representative of the 22-24 age cohort across Canada. However, Cycle 3 weights were used to maintain the representativeness of the sample as much as possible.

3.1 Dropout status

One of the key decisions in the analysis was how best to measure the dependent variable. That is how should a “dropout” be identified, a student who accessed the second chance system, and those who have never dropped out? There are a number of measures in the three cycles of YITS that were used to construct this variable. After considering the research literature, the data and the distribution of cases the following classification was selected:¹

- “Dropout” = those who had left school by age 22 without a high school diploma and never went back to get their high school diploma by age 22 to 24.
- “Never dropped out” = all those who had graduated with a high school diploma by age 18 to 22, plus those “continuers” who were in school at age 20 to 22, having never dropped out and who had a high school diploma by age 22 to 24, plus those “continuers” who were in school, having never dropped out by age 22 to 24.

¹ Note: the original intent was to differentiate those second chance youth who dropped out of and returned to PSE, but there were insufficient cases in the data set to allow for this analysis.

- “Second chance” youth = all those who ever dropped out prior to age 22 to 24 who had subsequently returned to an educational institution and obtained at least high school diploma.

Overall, using this classification, 5.7% of the youth respondents were dropouts, 8.2% were in the second chance group, and 86.2% had “never dropped out”. Out of the 14,817 respondents aged 22 to 24 years, in cycle 3, there was insufficient information to create the dependent variable, dropout status, for 113 individuals. These individuals were omitted from the analysis that follows.

3.2 Other created variables

In order to reduce the number of variables to a manageable number and to minimize collinearity in the multivariate analysis, some summary scales were used or created. Other variables were re-coded to provide more meaningful categories with sufficient cases in each category. The procedures used are described below.

Early transitions

An “early transitions” scale was created which indicates how many of three specific transitions the young person had experienced as of cycle 1 and cycle 2: leaving the parental home, being married or equivalent, having a child. The score ranges from 0 to 3.

Engagement with the school

The data set contains scales that measure Academic, Social and, combining the two, overall engagement with the school. These are IRT scales available in the YITS micro data file (see Statistics Canada, 2003 for details). This analysis used only the measure of Academic engagement.

Population groups

The population groups were formed on the basis of two factors: self-identified ethnic/racial background, and immigration status. Cultural/racial self-identity was ascertained in response to a question about their cultural or racial background. The list of possible responses included “White”, “Aboriginal”, and a variety of visible minority identities and countries, with multiple self-identities permitted. To maximize the number of aboriginal and visible minority cases, those who mentioned “Aboriginal” were classified as First Nations, regardless of whether they also mentioned other identities. Additionally, those who listed a non-European (and non-aboriginal) identity were classified as a visible minority. All other respondents were classified as “European”. The non-aboriginal groups were then sub-divided on the basis of their immigrant status; those born in Canada are referred to as Canadian-born, all others as immigrants.

This procedure produced five population groups: 1. First Nations, 2. Canadian-born visible minorities, 3. visible minority immigrants, 4. immigrants of European ancestry and 5. Canadian-born youth of European ancestry (the reference category in the multiple regression).

Extracurricular activities

Respondents were asked about both school- and non-school participation in extracurricular activities. Information from these two variables were combined such that a 0 indicated participating in neither, while a score of 2 indicated participation in both.

Parental education

Respondents reported the level of education of their parents. These were grouped into three categories: less than high school, high school graduate, and more than high school.

Re-coded variables

Several variables were re-coded in order to facilitate interpretation of the multivariate regression. These include: self-reported *marks* (70% (B+) and over versus under 70%); took *university preparatory* Math or the compulsory language course (coded as: took 0, took 1, took both); took Math or the compulsory language course at the *grade 12 level* (took 0, took 1, took both).

Work status during the past year (never worked, worked 20 hours or less, worked over 20 hours) was treated as a set of dummy variables in the multiple regression analysis.

Since only two provinces were found to be different from others, *province of residence* was re-coded to allow for two comparisons: Alberta versus the rest of Canada and Quebec versus the rest of Canada.

Missing value indicator

The largest number of missing cases (N = 1,124) occurred on youth's report of parental level of education. An indicator variable was constructed such that 1 indicated that information on parental education was missing, otherwise the score equaled 0. This variable, when entered into the multivariate regression equation, adjusts the estimated parameters of the independent variables for non-response effects.

Table 1 gives the relevant descriptive information about the variables used. Note that, unless otherwise indicated, all independent and control variables are from cycle 1 data.

Table 1
Descriptive statistics for all independent and control variables

Descriptive Statistics	Mean	Std. Deviation
Rural	0.21	0.41
Mental or physical disability affects school work – health problems	0.060	0.24
Resident of Quebec	0.25	0.43
Resident of Alberta	0.11	0.32
Female	0.49	0.50
Has at least two siblings	0.23	0.42
Two parent family structure	0.71	0.45
Last high school attended was a private school	0.08	0.27
Repeated a grade in elementary school	0.11	0.32
Participated in a volunteer activity	0.47	0.50
Participated in extra curricular activities	1.21	0.76
Scale measures school engagement	0.02	0.99
Did not work for pay during school year in high school	0.38	0.49
Worked 20 or more hours per week in high school	0.24	0.42
All peers expect to pursue PSE	0.33	0.47
Number of transitions (leaving home, marriage, parent) at 18 - 20	0.26	0.59
Number of transitions (leaving home, marriage, parent) at 20-22	0.52	0.80
GPA of 70 or better in 18 to 20	0.77	0.42
Expected to obtain at least one university degree	0.45	0.50
Took Math and compulsory language course at university preparatory level	1.17	0.84
Took Math and compulsory language course in grade 12	1.13	0.90

4. Findings

4.1 Characteristics of those who access second chance options

There are two components to the identification of those who access the second chance educational options. The first is descriptive – what are their characteristics? For example, are they more likely to be male or female? To live in rural or urban areas? The second is a comparative one: how are those who access second options similar to and different from: (a) dropouts who do not (at least by cycle 3) pursue any more education and (b) high school graduates who have never dropped out. The following analysis presents both these two components.

4.1.1 Demographic characteristics

Many of the demographic characteristics of youth are reported in other analyses of the YITS data set so they will not be dwelt on in detail here (see Bowlby and McMullen 2002; Bushnik 2003; Bushnik, Barr-Telford, and Bussière 2004; Finnie, Laporte, and Lascelles 2004; Lambert, Zeman, Allen, and Bussière 2004; Rivard and Raymond 2004; Saigal, Stoskopf, Streiner, Boyle, Pinelli, Paneth, and Goddeeris 2006; Shaienks, Eisl-Culkin, and Bussière 2006; Tomkowicz and Bushnik 2003; Tomkowicz, Shipley, and Ouellette 2003; Zeman, Knighton, and Bussière 2004). However, it is important for the reader to be aware of these relationships when interpreting the multivariate analyses. As shown in Table 2 second chance youth and dropouts are both less likely to be female, compared to those who have never dropped out. This confirms a pattern well known in the literature that not only are males more likely to drop out of school, they are less likely than females to avail themselves of any second chance options.

Table 2
Demographic profile by dropout status

Demographic profile	Dropouts who did not return	Second chance youth	Youth who never dropped out
Rural	30%	21%	21%
Health problems	12%	10%	5%
Resident of Quebec	31%	31%	23%
Resident of Alberta	16%	10%	11%
Female	36%	46%	51%
Has at least two siblings	33%	26%	21%
Two parents	55%	54%	75%
Last high school attended was a private school	5%	3%	9%
Left parental home by age 18 to 20	25%	17%	15%
Left parental home by age 20 to 22	42%	33%	31%
Was married or living with a partner at cycle by age 18 and 20	16%	10%	5%
Married or living with partner at cycle by age 20 to 22	22%	17%	11%
Was parent of a child at cycle by age 18 and 20	13%	11%	1%
Was parent of a child at cycle 2 by age 20 to 22	23%	19%	4%

Rural youth fare less well than urban insofar as more dropouts are from rural areas. However, there is no difference in the proportion of second chance youth and those who never dropped out in terms of rural versus urban location.

There are some regional differences that are worth noting. Dropouts are disproportionately located in Alberta, presumably because the vibrant economic climate there means there are employment opportunities even for those without a high school diploma. Quebec, on the other hand has more than its fair share of both dropouts and second chance youth. Fewer youth who have never left school (23% versus 31% of dropouts and second chance youth) live in this province. These are the two regions in Canada where differences in dropouts and taking up second chance options are most pronounced and therefore included in the analysis.

The parental and family background of these three groups of youth differ. Parental education of those who never dropped out is higher than for the other two groups (see Table 5). What is more, parents of dropouts have even lower education than parents of those who return to schooling. While the difference is not large it does show a pattern, consistent with the research literature, that second chance youth come from households with higher socio-economic status (SES) than dropouts, but lower SES than those who successfully complete high school without leaving. Interestingly there is no difference between dropouts and second chance youth in terms of the percentage who live with two parents. However, both these groups are less likely to be living with two parents than those who never left school. Attending a private school can be seen as an indirect measure of family income since attendance at these institutions often requires a heavy financial investment. While the

differences are relatively small, those who have never dropped out are more likely to report this advantage (9% versus 5% for dropouts and 3% for second chance youth).

The other family related measure examined is number of siblings, a rough measure of the extent to which familial resources might be diluted. Dropouts are more likely than second chance youth, who in turn are more likely than those who never dropped out, to report two or more siblings.

The remaining rows of Table 2 reflect characteristics of the young person (rather than their background, per se) that are related to their “dropout status”. There is only one, fairly limited measure that indicates the presence of a “Long term physical condition, mental condition or health problem” that might interfere with one’s school performance. There is no indication or detail gathered on the nature or extent of this disability. The interesting finding, using this admittedly crude measure, is that there is virtually no difference in the percentage of dropouts and second chance youth who report such a disability (12% versus 10%). However, few (5%) of those who have never dropped out report a disability. Since the question wording restricts the disability to one “affecting school work” it is surprising that there is not more of a difference between second chance youth and dropouts. Research using other data sets will need to be examined to see if these two groups differ in terms of the nature of disability.

Finally, the effects of some transitions the youth made at different points were examined. Leaving the parental home, whether reported at ages 18 to 20 or 20 to 22 years old, differentiates dropouts from the other two groups. It does not differentiate second chance youth from those who never dropped out. In this regard second chance youth are more like their counterparts who stayed in school; about one in seven from both groups reports having left by age 18 to 20; about one in three had left by age 20 to 22. About 10% more of the dropouts, in each cycle had left their parents’ home.

Not surprisingly, more youth report marriage (or equivalent) or having a child by age 20 to 22 than cycle 1. Dropout status seems to be related to marriage in both cycles, with dropouts having the highest percentage of married respondents, followed by second chance youth and with those who never dropped out having the lowest rates. Similarly, dropout status is related to child bearing, but mostly in terms of differentiating between those who dropped out versus those who didn’t, regardless of whether or not the dropout returned to schooling. In other words children may be associated with dropping out of school (especially for young women) but they do not seem to deter young people from accessing the second chance system.

Table 3 gives the breakdown of the sample by dropout status and ethnicity. For ease of presentation, in the tables above the table is set up so one can readily see the percentage in each group that have a particular characteristic (for example what percent of each group are female). Because there are relatively few respondents in some of the ethnic categories, in this table, the percentages indicate the proportion from each ethnic category in each of the three dropout categories.

Table 3					
Dropout status by ethnicity					
Ethnicity	Dropouts who did not return	Second chance youth	Youth who never dropped out	Total	N
First nations	13%	26%	61%	100%	358
Visible minority immigrant	3%	11%	86%	100%	854
European immigrant	7%	13%	80%	100%	396
Canadian born visible minority	5%	10%	85%	100%	979
Canadian born European descent	8%	9%	83%	100%	1,195

The group that stands out includes those youth who identify themselves as belonging to one of Canada's First Nations groups. These youth are more likely to be school dropouts. Interestingly they are also likely to be second chancers. They are least likely of all the youth to have never dropped out. Only 60% of them fall into this category, compared to 80% or more of the other groups.

Note that there is no difference in dropout status by age, as shown in Table 4. There is, however, a difference based on parental education, as is evident in Table 5. Those whose parents have less than high school education are more likely to have dropped out of school; they are also more likely to be in the second chance group. Correspondingly, those whose parents have high education (more than high school) are more likely to have never dropped out.

Table 4					
Age by dropout status					
Age	Dropouts who never returned	Second chance youth	Youth who never dropped out	Total	N
18	6%	12%	82%	100%	4,857
19	8%	9%	83%	100%	4,907
20	8%	8%	83%	100%	4,890

Table 5					
Parental education by dropout status					
Parental education	Dropouts who never returned	Second chance youth	Youth who never dropped out	Total	N
Less than high school	13%	15%	72%	100%	2,105
High school	8%	9%	83%	100%	4,891
More than high school	3%	7%	89%	100%	6,535

4.1.2 Academic performance

Some additional risk factors that are associated with dropping out, and possibly with using second chance options, have to do with the courses youth take in high school and their performance in those classes. Table 6 gives these data from cycle 1 of YITS.

Table 6			
Academic performance at cycle 1 by dropout status			
Academic performance at cycle 1	Dropouts who did not return	Second chance youth	Youth who never dropped out
Took Grade 12 language class	17%	32%	72%
Took Grade 12 math class	9%	19%	58%
Took university-preparatory language class	23%	35%	61%
Took university-preparatory math class	20%	30%	69%
Repeated a grade in elementary school	34%	27%	7%
GPA in last year of school (mean)	70	71	78

The courses considered are whether or not the student took Math or the compulsory language classes (English or French) in grade 12, and whether or not they took classes in these subjects that were university preparatory classes (top section of Table 6). The assumption is that taking these courses in grade 12 and taking them as university preparatory classes are an advantage when one leaves high school. There are two fairly consistent patterns among the courses taken by the youth in the three groups. One is that those who have never dropped out being the most advantaged and dropouts who never returned the least. The other pattern is that those who availed themselves of second chance options are more like dropouts than they are like those who never left. This is evident from the fact that the percentage difference is less between the first two columns of Table 6 than the second and third when courses taken were examined. That is, second chance youth are more similar in their behaviours to dropouts than they are to those who never dropped out.

The same patterns hold for repeating a grade (grade retention) and marks (see the bottom section of Table 6). Thirty-four percent of dropouts, compared to 27% of second chance youth and only 7% of those who have never left school say they repeated a grade in elementary school. One effect of this grade repetition is that these youth are older than others in their grade. Another effect is that they have, by being forced to repeat a grade, received fairly negative feedback about their academic ability, feedback that is likely to have negatively affected their self image.

The pattern differentiating the three groups by their marks is not as clear. Dropouts and second chance youth are virtually identical in their average reported marks, whether one considers their mark in Math, language, or their overall GPA in their last year of school. There is no indication here of second chance youth being advantaged. However, those who have never dropped out do have higher marks, on all three measures, than the other two groups. Nevertheless, note that the differences are not large (4% to 8%). Further the average marks reported by all the youth are over 70% - marks that would not preclude post-secondary studies, assuming they are in the appropriate courses. In other words the barriers facing dropouts and second chance youth is as much or more in the courses taken and how far they went in high school, not simply how well they performed.

4.1.3 Actions and attitudes

This section examines some of the options the different youth took while they were in school, and their attitudes to school and further education. Table 7 gives the relevant results.

Table 7			
Actions and attitudes by dropout status			
Actions and attitudes	Dropouts who did not return	Second chance youth	Youth who never dropped out
Participated in school-based extracurricular activities	36%	31%	64%
Participated in volunteer activities	24%	35%	51%
Participated in extracurricular activities outside of school	44%	50%	66%
Did not work for pay during school year in high school	45%	38%	37%
Worked 20 or more hours per week in high school	29%	33%	22%
Scale measures academic engagement (mean)	-0.82	-0.49	0.15
Scale measures social engagement (mean)	-0.56	-0.47	0.09
Scale measures overall school engagement (mean)	-0.85	-0.58	0.15
Expected to obtain at least one university degree	6%	17%	52%
All peers expect to pursue PSE	11%	20%	37%

The first panel of Table 7 shows that those who never left school were more involved in their schooling than students in the other two groups in a number of ways. They spent participating more in voluntary and extracurricular activities (inside school and out), they were less likely to work more than 20 hour a week – an activity that could interfere with their school work. Those who dropped out and did not return were more likely than second chance youth to participate in school based extracurricular activities. They were more likely than either of the other two groups to say they did not work for pay at all during the school year, and slightly less likely than second chance youth to report working more than 20 hours a week. In other words these activities may be related to whether or not one drops out of school at some point, but they are less useful in predicting who will return once they have dropped out.

The data set has measures of academic, social and overall engagement with the school. On all three measures those who never left school score higher (are more engaged) than second chance youth who, in turn, score higher than dropouts who never returned. Of course, one cannot definitely say that those who are less engaged leave. It could well be that youth who are in the process of leaving reduce their engagement. It is also possible that there are feedback loops from one to the other. Longitudinal data can help tease out some of these effects but since different youth drop out at different times and avail themselves of second chance options at different times, no cohort study can capture all the nuances of timing. Nevertheless, these engagement measures are a signal of a disengagement process which can, and for many students does end in leaving school before earning a diploma. This disengagement, then, is a cue to school officials to make an intervention where appropriate and feasible.

Finally, the youth's responses regarding post-secondary education were examined. There were some quite dramatic differences between the three groups. About half (52%) of those who never dropped out said they expect to obtain at least one university degree. This compares with only 17% of second chance youth and 6% of dropouts who did not return. Clearly the youth who had left or were leaving did not see a university degree as an option for them.

The bottom row of Table 7 shows the percentage of youth in each group who say their peers plan to attend post-secondary education. The pattern of responses shows that those who themselves hope and plan to pursue post-secondary education have friends who feel the same way. Those who have never left school are more likely than second chance youth to say this of their friends, who are more likely than non-returning dropouts to give this response (37% versus 20% and 11% respectively).

4.1.4 Summary

Many of the results presented here have been documented with cross-sectional analyses of the 18-20 year old cohort of the YITS. The point here is to set the stage for the multivariate analysis, which also takes the longitudinal nature of the survey design into account. There are measures of background demographic factors and school performance factors in 2000. There are measures of certain transitions (leaving the parental home, entering into a marriage or equivalent, having a child) in 2000 and 2002. Finally, and most important, there are measures of the outcome variable, "dropout status" in 2004.

The general pattern in the bivariate analysis is that those who have never dropped out tend to be advantaged in various ways compared to both dropouts and those who pursue second chance options. This pattern holds regardless of their background, their school performance or their actions and attitudes as they relate to their educational transitions. Similarly, with some exceptions, second chance youth tend to be advantaged in various ways relative to dropouts.

The key questions, then, are: What are the factors that differentiate second chance youth? In what ways are they similar to dropouts? In what ways are they different from this group who leave formal schooling and do not return? These questions are answered in the multivariate analysis by identifying the simultaneous effects of the range of factors examined.

4.2 Multivariate analysis

The dependent variable of interest is a multiple category nominal level variable: (1) dropped out and did not return, (2) dropped out and returned to education (the “second chance” youth) and (3) did not drop out. The appropriate multivariate analysis used is multinomial logistic regression as it allows simultaneously controlling on a number of variables. Such an analysis produces odds ratios so that the results show the odds of, say, members of one group being female, relative to those in the omitted, reference category. In this analysis the reference category is those who have dropped out and not returned to school. So, how second chance youth are similar to or different from dropouts can be studied. The ways in which those who never dropped out are similar to or different from these other two groups, although this will not be the main focus. Nevertheless, it is important to keep in mind that the regression models compare the three outcome groups. The omitted, reference category in all analyses is being a dropout.

The measure used to indicate the goodness of fit of the multinomial regression model is Nagelkerke’s pseudo R^2 .

Reading odds ratios

The statistics presented in the multivariate analysis are known as odds ratios. Parameter estimates greater than 1.0 indicate that the odds are higher than that for the reference category; numbers less than 1.0 indicate that the odds for that group are less than those for the reference category. Most of the variables in this analyses are 0/1 dichotomies. For these variables, the coefficients for a given independent variable (say “female” where 0=male and 1=female) indicate the odds of someone with that characteristic (being female) being second chance youth rather than a drop-out, relative to those without the characteristics (males). So, in Table 8, females are 36% more likely to be in the second chance rather than the drop-out category than males (the odds ratio is 1.36). The odds are similar (1.24) that females will be in the “never dropped out group” rather than the drop-out group. In other words, dropouts are more likely to be male.

For continuous variables, the odds ratios indicate the increase or decrease in the odds of being in one group versus the comparison group (dropouts) with a one unit change in the independent variable.

It is important to keep in mind that the odds ratios in this table are interpretable as net effects, since they statistically control for all other independent variables included in the model.

Several of the individual measures reported in the bivariate tables have been combined or recoded for the multivariate analysis. The procedures used are described in the Data and Measures section of the paper, above.

The multinomial regression was undertaken using stepwise procedures. The model after the first step shows the effect of just the demographic variables. The second adds student activities, including early transitions as of the first data collection. The variables entered at the third and final step include measures of student performance, their educational expectations as well as “early transitions” as of the second data collection, when the respondents were aged 20 to 22. Entering the two measures of early transitions at different stages of the regression model allowed taking advantage of the time ordered nature of these measures.

The final, full model reflects all the variables of interest which have a statistically significant effect on dropout status. Variables that have no statistically significant effect on the outcome variable have been removed from the analysis. Note that the odds ratios for some measures may not appear to be statistically significant in one particular section of the table. There are three scenarios where this happens. It may be that the measure does not differentiate say, second chance from dropouts, but it does differentiate dropouts from the “never dropped out” group. The second is when a listed measure is part of a set of dummy variables (such as did not work, worked less than 20 hours a week, worked 20 or more hours a week) and the overall set has a statistically significant effect. Thirdly, some variables are retained in the model because they either have an effect for one or other gender category when run separately (see Table 9).

Given the age spread in the YITS and the importance of age to youth’s educational decisions, age is controlled. It is clear that younger students tend to be second chance youth or those who never dropped out. Dropouts are older than the other two groups. Keeping age in the multivariate equation ensures that the results are not masked by variation in age in the YITS sample. Table 8 shows the results of the multinomial regression analysis.

Table 8 Multinomial regression of factors related to dropout status											
Odds ratios and significance	Model 1			Model 2			Model 3				
	2nd chance	Never dropped out		2nd chance	Never dropped out		2nd chance	Never dropped out			
Missing value	0.37	***	0.14	***	0.23	***	0.51	***	0.36	***	
Rural	0.69	***	0.69	***	0.72	***	0.76	**	0.89	ns	
Health problems	0.75	*	0.38	***	0.44	***	0.81	ns	0.57	***	
Quebec	0.98	ns	0.58	***	0.59	***	1.56	***	5.11	***	
Alberta	0.62	***	0.55	***	0.79	*	0.59	***	0.77	*	
Female	1.46	***	1.88	***	1.29	**	1.36	***	1.24	*	
Two or more sibs	0.70	***	0.64	***	0.63	***	0.70	***	0.76	**	
Two parents	1.02	ns	2.48	***	1.77	***	0.90	ns	1.72	***	
Private school	0.62	*	1.62	***	1.03	ns	0.63	*	1.10	ns	
age=18	2.11	***	1.45	***	1.01	ns	2.29	***	1.83	***	
age=19	1.31	**	1.18	*	1.04	ns	1.36	**	1.23	*	
First nations	2.19	***	0.67	*	0.73	ns	2.57	***	1.18	ns	
Canadian-born visible minority	3.35	***	2.62	***	1.86	**	3.48	***	2.10	**	
Visible minority immigrants	1.74	*	0.97	ns	0.69	ns	1.73	*	0.88	ns	
European immigrants	1.76	**	1.42	*	1.12	ns	1.23	ns	0.63	*	
Parent education (< High school)	0.54	***	0.23	***	0.32	***	0.75	*	0.57	***	
Parental education (High school)	0.55	***	0.40	***	0.48	***	0.64	***	0.64	***	
Repeated grade					0.27	***	1.02	ns	0.65	***	
Voluntary activities					1.86	***	1.42	***	1.61	***	
Extracurricular activities					1.51	***	0.92	ns	1.37	***	
Engagement					2.68	***	1.32	***	2.02	***	

Table 8 (continued) Multinomial regression of factors related to dropout status									
Odds ratios and significance	Model 1		Model 2		Model 3				
	2nd chance	Never dropped out	2nd chance	Never dropped out	2nd chance	Never dropped out			
No job			0.73	**	0.84	***	0.84	ns	ns
Worked > 20 hours			1.09	ns	1.13	***	0.73	ns	**
All peers in PSE			1.57	***	2.45	***	2.20	***	***
Early transitions - Cycle 1			0.81	***	0.55	***	0.74	ns	***
Early transitions - Cycle 2							0.74	*	***
Marks B+							1.79	ns	***
Expect university							3.59	***	***
Took language/math as univ prep							1.69	***	***
Took language/math in grade 12							8.85	***	***
Nagelkerke's pseudo R ²	.15		.35		.50				

Dependent variable = dropout status. N= 14538.

Sig.: * = .05; ** = .01; *** = .001.

Table 9
Multinomial regression analysis of dropout status by gender

Odds ratios and significance	Females				Males			
	2nd chance		Never dropped out		2nd chance		Never dropped out	
Missing value	0.70	ns	0.64	ns	0.43	***	0.25	***
Rural	0.73	ns	0.86	ns	0.77	*	0.91	ns
Health problems	0.61	*	0.38	***	1.22	ns	1.02	ns
Quebec	2.45	***	10.05	***	1.33	*	3.70	***
Alberta	0.93	ns	1.09	ns	0.41	***	0.60	**
Two or more sibs	0.72	*	0.92	ns	0.72	*	0.66	***
Two parents	0.71	*	1.61	***	1.07	ns	1.76	***
Private school	0.98	ns	1.75	ns	0.43	**	0.85	ns
age=18	1.87	***	1.50	*	2.74	***	2.19	***
age=19	1.21	ns	1.26	ns	1.57	**	1.22	ns
First nations	2.45	**	0.75	ns	2.04	**	1.63	ns
Canadian-born visible minority	4.03	***	2.99	*	3.12	***	1.75	ns
Visible minority Immigrants	2.81	ns	1.93	ns	1.47	ns	0.77	ns
European immigrants	0.63	ns	0.26	***	2.50	**	1.66	ns
Parent education (< High school)	0.89	ns	0.75	ns	0.65	*	0.46	***
Parental education (High school)	0.68	*	0.77	ns	0.62	**	0.57	***
Repeated grade	1.36	ns	0.80	ns	0.86	ns	0.62	***
Voluntary activities	1.57	**	1.77	***	1.37	*	1.53	***
Extracurricular activities	0.88	ns	1.58	***	0.97	ns	1.23	***
Engagement	1.20	*	1.64	***	1.38	***	2.28	***
No job	1.09	ns	0.91	ns	0.68	**	0.76	*
Worked > 20 hours	1.32	ns	0.60	**	0.95	ns	0.79	ns
All peers in PSE	1.89	***	2.22	***	1.31	ns	2.23	***
Early transitions - Cycle 1	0.94	ns	0.75	**	0.76	*	0.80	*
Early transitions - Cycle 2	0.89	ns	0.63	***	0.82	*	0.83	*
Marks B+	0.98	ns	1.82	***	0.82	ns	1.94	***
Expect university	2.38	***	3.76	***	2.25	***	3.46	***
Took language/math as univ prep	1.41	***	1.94	***	1.12	ns	1.53	***
Took language/math in grade 12	2.70	***	9.50	***	2.12	***	9.13	***
N	7,141				7,396			
Nagelkerke's pseudo R ²	.49				.52			

4.2.1 Demographic variables

The top section of Table 8 shows the effect of the demographic variables on the dependent variable, dropout status. In the first model, with just these variables, the pseudo R^2 is .15. The primary focus will be on the effect of these (and other) variables in the full and final model.

Given all that gender and education are known, it is no surprise that the odds of returning to the formal education system for a second chance are higher for females (1.36). What is interesting, perhaps, is that this gender difference persists when a number of variables that might explain it are also included in the analysis. Even when marks and other measures of school performance are taken into account and even when one considers attitudes to school and participation in various school related activities are controlled, females are not only less likely than males to drop out of school, if they do drop out, they are more likely to return. Given this fact, separate multinomial regressions by gender were run (see Table 9). Rather than discussing it separately it is integrated in this analysis into the overall discussion so it will be clear which differences are characteristic only of one gender group.

Certain background factors decrease the odds of being a second chance youth, rather than a drop out – in other words, youth from certain backgrounds are less likely to return once they drop out. This is true of rural youth (odds ratio of .76). It is also true of those from large families (with 2 or more siblings), those living with two parents as well as those with health problems although these three patterns only hold for females (see detailed gender analysis in Table 9). For males only, being from Alberta or having attended a private school decrease the odds of dropouts returning for second chance in formal education.

If one sees retuning as the more desirable outcome, it might make sense that this outcome would be enhanced by living in urban areas or being from a small family as these youth would have more resources available to them. It is less obvious why, for females at least, being in a two parent household has this effect. The pattern for males from Alberta may simply reflect the vibrant economy that provides job options for youth, especially males, even if they do not have a high school certificate. It is less clear why those who have attended a private school are less likely to return once they have dropped out.

In contrast to the pattern for Alberta, comparing Quebec with the rest of Canada shows that those in Quebec have *higher* odds (1.56) of returning for a second chance than others. Other analyses, not shown, found language, in and of itself not to have a statistically significant effect on this outcome. However, in any analysis of language or province in Canada, one has to disaggregate the effects of province versus language. Here province is found to be the variable that has the most effect, perhaps reflecting the very different educational system in Quebec. A detailed analysis of the impact of this educational system on participation in second chance options is beyond the scope of this paper, but is clearly important to undertake.

Interestingly, all of the identified population groups – First Nations, Visible minority immigrants, European immigrants, Canadian-born visible minority youth – have higher odds of returning for a “second chance” than Canadian-born youth of European ancestry. As indicated in the literature review, above, there are specific programs that target First Nations youth, and this might account for their taking up second chance options. It is less clear why members of other groups do. Perhaps the relevant question is why Canadian-born youth of European background do *not* avail themselves of these options.

The reference category for parental education are those parents with more than a high school education. Thus the lower odds ratios for the other two groups with respect to being a second chance youth versus a dropout indicates that those youth whose parents have lower education are less likely to return. Phrasing that differently, those whose parents have higher education are more likely to return rather than remain a dropout. This result is consistent with the patterns found in the literature, cited above.

4.2.2 Youth actions

Entering the second set of variables that deal with youth actions, into the regression equation (in step 2) increases the pseudo R^2 from .15 to .35. The discussion will focus on the effect of these variables in the full and final model.

It is interesting to note that certain variables that might be expected to affect return to schooling via second chance options do not differentiate between this group and dropouts, when other variables are controlled. These include repeating a grade, participation in extra-curricular activities and working more than 20 hours a week. Nevertheless, these variables are retained in the model because they do have a statistically significant effect on the odds of never dropping out versus being a dropout.

Participating in voluntary activities increases the odds of being a second chance youth as compared to a dropout (1.42), as does scoring high on academic engagement (1.32). These results indicate that there are things youth can do to counter some of the disadvantages they may face as a result of their background. It raises the question of how to engage more students in these activities. Having peers who plan to attend post-secondary education also increases the odds of being a second chance youth, but only for females. Clearly this variable is less amenable to policy intervention, although it might signal the importance of peer mentoring for school dropouts.

A couple of indicators of student actions seem to work to decrease the odds of them availing themselves of second chance options. This includes undertaking early transitions. Interestingly, these only seem to have a statistically significant effect for males. The fact that early transitions (getting married, having children, leaving the parental home) have this effect for males not females might seem surprising, given that females are more likely to undertake each of these transitions, regardless of whether transition was measured when they were 18-20 or 20-22. This result becomes less puzzling when it is shown that undertaking these transition decreases the odds of never dropping out (i.e. increases the odds of dropping out) for both females and males.

4.2.3 School performance

The final set of variables entered in step 3 of the analysis primarily involves measures of school performance: - marks, whether or not one has taken Math or the compulsory language course at the grade 12 level, and whether or not one has taken these courses at a university preparatory level. Also added in this final step are one's expectations of attending university and reports of undergoing early transitions when the youth were 20-22. The pseudo R^2 for the full model is .50.

It is interesting that marks (having a B+ or higher versus lower marks) has no statistically significant effect on the odds of being in the second chance group versus being a dropout. It does, however, affect the odds of dropping out (see the right most column of Table 8).

Taking the required Math and English (or French) courses as university preparatory courses or at the grade 12 level both increase the odds of being a second chance youth rather than a dropout. In some ways this result is hardly surprising. However, it is worth noting that this effect is present even when one controls on a host of other variables, particularly since marks, per se, seem to have little effect here.

Finally, those who expect to go to university have much higher odds of being in the second chance group rather than being a dropout (2.25), even after controlling on other variables in the equation. This is consistent with the literature that shows the effect of higher aspirations and expectations on outcomes. It suggests that encouraging further education is important to youth returning even if they had drop out.

5. Policy implications and issues

The above analyses have involved an examination of a number of variables many of which have, in the research literature, been associated with dropping out of school. There is more limited research on second chance youth than on those who initially drop out. The above analysis based on a nationally representative of youth aged 18-20 years old in 2000, longitudinal data set has provided a wealth of information about factors associated with returning to school for a second chance. However many of those variables (such as being female) are not amenable to policy intervention. That said, as the effects of affirmative action in various fields have shown, programs and policies that target particular demographic groups can have an effect.

Some factors, while not changeable per se, warrant further investigation in order to identify the underlying dynamic. So, First Nations youth are more likely to be in the second chance group. Why is this? Is it because there have been a number of interventions that particularly target First Nations youth? Or, is it because they are more “resilient”? Why are immigrants and members of visible minority groups more likely to return for further education if they drop out? Does this pattern simply reflect a higher emphasis on education? The dynamic behind these findings must be understood before suggesting specific policy initiatives.

Establishing that the effects of some background risk factors persist after one controls not only on other risk factors but also on student attitudes and actions raises questions about *why* these youth are at risk. What is it about males that makes them more likely to drop out – even when you take into account their participation in various activities, their lower levels of academic engagement and their lower marks relative to females? What resources need to be put in place to encourage more rural youth to return to schooling if they drop out?

The situation in Quebec is particularly interesting. At the bivariate level, dropouts and second chancers were equally likely to be from Quebec. With controls in the multivariate logistic regression, second chancers were more likely than dropouts to be from Quebec. What is it about the Quebec system that means they have more than their share of dropouts – and of those who return?

Limited parental education and/or being part of a large family increases the child’s risk. This is not new information. The ongoing issue is what supports can be made available to these families to mitigate these effects?

Beyond additional research into the dynamics of some of the demographic variables, and programs of support for youth with a variety of risk factors, there are a number of variables that suggest some concrete actions that could be taken. One set of variables that had a consistent and large impact was taking Math and language at the highest level. These results reinforce the importance of encouraging students to take these central courses as long as they are in school. Of course, it raises questions about why students drop these courses.

The impact of academic engagement on being a second chance youth (particularly for males, who tend to dominate the drop out group) makes it clear that disengagement (resistance?) is an issue. While it is perhaps self evident that the more engaging schools are the better, this analysis supports the argument that the impact of disengagement is non-trivial.

It is relevant to note that many of the targeted second chance programs, reviewed above, emphasize flexible, student focused learning and close relationships between teachers and students. The apparent success of these programs reinforces the importance of early identification of students who are becoming disengaged, and finding ways to reengage them with the school. Innovative use of ICTs may be one way to entice students, particularly young men, to stay in school and to return once they have left.

Peers turned out to be important so that, for both males and females, those who said their peers planned to attend Post-secondary education (PSE), were less likely to drop out and if they did, were likely to return to further their education. It is obviously beyond the reach of policy initiatives to control young peoples' peers. However, the significance of this variable suggests that peer mentoring programs have the potential to make an impact on decisions to return to schooling.

Surprisingly, extracurricular activities seem to have little impact on returning once one had left school. (This does not change the fact that those who never leave are more likely to be active in extracurricular activities.) More relevant to pursuing second chance options is participation in volunteer activities. This finding may suggest that involvement of youth with the community acts as a signal that they are "resilient" and willing to invest in their future. It also suggests that this type of community involvement, which can be built into targeted second chance programs, could be an asset.

Students with self reported health problems are more likely to drop out of school. Further, female students with these problems are unlikely to return. This result suggests more supports for those with special needs are warranted, and perhaps a special second chance program need to target these students.

Those who enter into a marriage or equivalent relationship, have a child and/or leave the parental home early are more at risk of dropping out. While males are less likely to engage in these transitions, if they do, they are less likely than females to return. What supports do schools have in place for these students? Some schools provide day care facilities for young parents. Others, especially alternative schools, work closely with community service organizations. It remains to be seen which services are most effective for which students, but the results suggest that some sort of policy intervention could be important.

Risk factors and resistance may predict dropping out but the use of second chance options is possible evidence of student resilience. That said, those who show this resilience are different in some important ways from those who drop out and never return. It may be less productive to think of resilience as a response to risk than as a capability that can be built when appropriate social supports are put in place through policy interventions at the local, provincial and federal levels.

This point returns to the issue raised earlier in the review of the literature. There *is* no “second chance system” as such in Canada (unlike in some European countries). This analysis documents that many students do return to complete their schooling. Despite the fact that Canada has an apparently solid record of attracting youth back to complete at least their high school program, the fact that so many demographic and school related variables predict this return suggests that there are groups that are not as effectively reached as others. If encouraging as many youth (and adults) as possible to complete high school, more systematic attention needs to be paid to this issue at both the federal and provincial/territorial level.

In sum, there are a number of measures that help predict who will drop out of school, and who will return for a “second chance” if they do leave. Under the assumption that both the individual and the society benefit from students completing, at a minimum, a high school certificate to allow them to pursue post-secondary education and/or to be more productive in the labour market, then it is important to go beyond this prediction. Which of these measures are amenable to policy intervention need to be understood and the policy interventions that do take place to identify their effectiveness for different youth need to be carefully evaluated. This analysis of a nationally representative, longitudinal data set has allowed the better identification of measures that should be the focus of these future efforts.

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