

**The Backgrounds of Canadian Youth and Access to Post-Secondary Education:
New Evidence from the Youth in Transition Survey**

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Abstract

This paper exploits the unprecedented rich information available in the Youth in Transition Survey, Sample A (YITS-A) to investigate issues related to access to post-secondary education (PSE). The release of these data make it possible since the cohort was age 19 at the time of the third wave of survey in 2004, and therefore at the point of making decisions with respect to participation in PSE.

The questions we ask are basically two-fold: i) What are the various influences of early background on access to PSE, including high school grades, social/academic "engagement"; parental influences, etc.? and ii) How does including such a more extensive set of variables than has been possible in previous studies change the estimated effects of the conventionally measured family/parental influences, including family income and parental education, on access to PSE, and thus indicate how much of the latter influences operate through the broader set of variables, thereby isolating the direct – as opposed to indirect – influence of these traditional measures on access?

Utilizing multinomial logit models to address the choice of level of PSE (i.e., college versus university) we find that parental income is positively related to university – but not college – attendance, although its importance is diminished once parental education is included in the estimation. Similarly, the importance of parental education on university attendance is diminished once high school grades, academic participation, and standardized reading test scores (i.e., PISA results) are included. In general, university attendance is much more sensitive to the included variables compared to college attendance. This result may not be surprising given the nature of the PSE system in Canada. In any case, background variables are an important inclusion into the model of PSE choice. How these characteristics are developed and the mechanism(s) by which they are transferred from parent to child is likely where future research, and resources, should be targeted.

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The Backgrounds of Canadian Youth and Access to Post-Secondary Education: New Evidence from the Youth in Transition Survey

I. Introduction

There has recently been an increased interest in the attraction and retention of students in post-secondary education (PSE) across Canada, indeed all over the world. This is due to the perception (if not the fact) that countries will need an educated population in order to compete with other countries in the burgeoning information economy. This competition comes from not only traditional competitors in the Western world, but also emerging economies such as China and India as their economies grow handsomely and move beyond the industrialization model of economic growth. This competition has caught the attention of Western policy makers who seem to be unsure if the relative position of their economies can be maintained in the face of this new competition. University administrators too are propelling this interest in access and retention, understanding that the demographic changes in the Western world, means that there will be increased competition for students within each country for domestic students.

For economists, many of the problems regarding access and retention are more pedestrian: the potential misallocation of resources since it is very costly to educate students, and these costs increase with the level of education (e.g., graduate school versus colleges). Given these high costs of schooling, it is important to economists that policy makers have useful information to ensure that young individuals who are qualified to attend PSE are able to do so and, once they are in PSE, they remain there until graduation.¹

Most of the research in the areas of access (plenty) and retention (considerably less) has focused on the financial aspects of PSE participation. The reason for this is undoubtedly because economists conduct much of this research, data on financial variables are readily available, and many of these (e.g., tuition, student loan amounts, etc.) can be changed through policy. Canadian studies on the impact of tuition hikes at post-secondary institutions have become very common in the past few years (Coelli, 2005; Neill, 2005; Johnson and Rahmad, 2005; are recent examples). Prior to the mid-1990s, tuition at Canadian PSE institutions was low as a percentage of the total cost of education. If low-income families could not afford to send their children to PSE, the well-developed and adequately funded student loans system would take care of them. With provincial government funding to institutions cut back in the 1990s, the result of a wider program of expenditure reductions, institutions were forced to make up for this reduction in revenue by increasing tuition (Finnie and Usher, 2005). This tuition increase led to concerns that individuals, especially those from low-income backgrounds, may be excluded from participating in PSE.

The importance of financial variables has also been perpetuated in the mainstream media, often encouraged by student interest groups whose mandate is to lobby governments for more favourable financial conditions for those attending university. Tuition increases are constant fodder for the media and student protests seem certain to be front-page news. To wit, a recent *Globe and Mail* opinion piece was entitled "The sacred cow of low tuition." It ran on the same day as PSE students from across the country rallied against high tuition.

Recent scholarly research in the area, however, has shifted its emphasis to non-financial variables as a newer generation of research has concluded that financial resources are but one of many important determinants of PSE participation. Carneiro and Heckman (2002), for example, argue that it is long-term factors, such as family background, over short-term factors, such as credit constraints, which are of paramount importance in determining access to PSE. Since many of these factors are correlated with family income in the short-term period when PSE decisions

¹ It is well known that sheepskin effects exist in PSE (Ferrer and Riddell, 2001, 2002), so that attendance without completion generally represents a misallocation of resources since the education was costly to provide and yet the individual does not benefit in terms of higher earnings without having obtained the parchment or sheepskin.

are made, it is often erroneously stated that this short-term credit constraint is what prohibits low-income individuals from attending PSE. The implication of this work is powerful: policy should be directed towards students earlier in life if the long-term goal is to increase PSE participation.

This is not to imply that financial resources are not important, only that they may be correlated with other variables which are important determinants of PSE participation, and thus there may have been a misguided assignment of the influence of these financial variables. Indeed, the emerging consensus amongst researchers seems to be that other factors earlier in a child's life may be more important in determining the child's future education possibilities. Parental influences, standardized test scores and school quality, to name but a few. Certainly many of these factors are correlated with the resources available to the student to succeed at pre-PSE levels of schooling. For policy purposes, however, determining the best use of scarce government resources is important. If increased student loan subsidization and/or decreased tuition do not have the desired effect on access and retention, than these resources may simply amount to "rent" accumulating to those whose PSE decisions are not sensitive to these financial variables. In this case, governments would likely do better at targeting their resources to, say, better preparing students for gaining admission into PSE institutions or providing younger students with better information about the costs and benefits of PSE.

In what follows, we address the importance of some of these non-financial barriers. In particular, we focus on the background of young adults at the time when they are 15-years old to assess the importance of these factors on entering either college or university. Furthermore, while the *average* student may be relatively unaffected by the cost of PSE, students come from a wide variety of backgrounds -- including various family incomes -- and it is students from low-income families in particular that be more sensitive to higher PSE costs. Thus, we pay particular attention to this group. The availability of the Youth in Transition Survey (YITS) allows an unprecedented look at the importance of many variables that could potentially determine the success or failure of students in accessing PSE in Canada.

The contribution of this paper is moving beyond most of the current literature by including a series of background variables into the analysis; the inclusion of which allow us to analyze the relationship of both financial variables -- which form the bulk of the work in this field -- as well as a number of background variables that also may be of importance. It is this latter group of factors that may correlate with financial variables, and yet may themselves be important correlates of PSE participation amongst Canada's young people. In particular, the YITS contains detailed information on parental education, the academic background of the student, etc. The effect of these variables, as well as changes to the usual variables when these are introduced, is the main point of the following work.

The paper is organized as follows. The following section contains a review of the pertinent literature. Section III discusses the methodology employed. The data are discussed in Section IV, while the results of the descriptive and multivariate analysis is the topic of Section V. The final section concludes the paper and offers a few policy recommendations based on the major results of the empirical work.

II. Literature Review

It will not be the purpose of this section to conduct a comprehensive review of the literature which addresses the factors related to PSE participation. This has recently been done elsewhere for the Canadian literature (De Broucker, 2005; Junor and Usher, 2004; Looker, 2001; Looker and Lowe, 2001; Mueller, 2007) as well as the US literature (Ehrenberg, 2004; Long 2005). In what follows, we briefly describe the evolution of our knowledge about access to PSE in Canada, and then outline how the subsequent work in this paper fits into this evolving literature. More specifically we tie our work into the earlier work on the influences of family background on access to PSE as outlined by Cameron and Heckman (2001) and Carneiro and Heckman (2002).

A good share of the Canadian and international literature has addressed the impacts of financial variables on access to PSE amongst young people. The accumulated evidence, however, suggests that the demand for PSE is price inelastic (Junor and Usher, 2004), although tuition increases are likely to have a larger impact on individuals from low-income families (Coelli, 2005). Both Chrisophides, et al. (2001) and Corak, et al. (2003) include parental income in their models of PSE participation and find that tuition generally had little effect, but that parental income is important for university attendance, but not for PSE in general. Frenette (2005) and Drolet (2005) also find that PSE attendance gap between high- and low-income families is narrowed when colleges and universities are both considered, but that students from low-income family are less likely to attend either, but especially university.

Many of the first generation of empirical studies also suffered from data problems; focusing on the financial aspects of PSE attendance since these were the data available. Furthermore, the data used were often cross-sectional, which presents a host of empirical problems. Rivard and Raymond (2004), for example, argue that many of the above studies may have biased estimates of participation. For example, students who are already in the education system may have less elastic price elasticity of demand and this will downward bias any estimate when all students are included in the analysis. Furthermore, it is often only students in PSE that are observed and the researcher either has to use complex data manipulation techniques to account for those not observed (a "science" with its own problems) or simply live with the problems inherent in the data. Furthermore, the lack of control variables can also result in biased coefficient estimates associated with those variables that are included. To overcome some of these problems, Rivard and Raymond (2004) utilize the YITS (Cohort B or YITS-B) to address the transition into PSE from high school. They too find that entrance into PSE is not particularly sensitive to either tuition or family income. More important factors are parental education and academic preparation, although they argue that increased returns to PSE as well as increased student loan amounts were also likely important in reducing the significance of income and tuition variables. The data these authors utilized make these conclusions possible: namely that the financial variables that were hitherto considered important, become much less so when the appropriate variables are included.

For the US, evidence also points to the lack of importance of financial factors when the appropriate background variables and data are utilized. Cameron and Heckman (2001) show that parental income in the child's pre-PSE years is positively correlated with schooling attainment, but this is due to the long-term correlation with family and environmental factors. Keane and Wolpin (2001) perform simulations which suggest that financial transfers from parents to students would only have a modest effect on PSE attendance for those individuals from low-income families. Carneiro and Heckman (2002) argue that since many long-term factors are correlated with short-term financial factors in the period when PSE decisions are made, the latter are often cited as being important when in fact it is the former influences that carry the most weight. These studies together suggest that it is not financial constraints that prohibit young people from attaining PSE, but rather other factors correlated with parental income.

Finnie, Laporte, and Lascelles (2004) use the 1991 School Leavers Survey (SLS) and the 2000 YITS-B – both of which contain a variety of family background variables – to analyze the influences of these factors on PSE access. They find that participation rates in the 1990s increased most amongst students whose parents were highly educated, although this may partially be due to the fact that education is highly correlated with income. This may be particularly important in the 1990s since tuition increased rapidly in most jurisdictions throughout Canada. Addressing the indirect channels through which parental influences work is the purpose of the paper by Finnie, Lascelles and Sweetman (2005) which also uses the 1991 SLS as well as its follow-up in 1995. The authors use a block recursive regression technique where indirect variables of interest are added into a linear regression model which also includes direct effects of factors such as parental income, family type, etc. in order to ascertain both the direct and indirect effects of these background variables. They find that family background is related to PSE participation both directly and also indirectly through variables such as high school marks,

attitudes towards education, etc. Furthermore, the direct effects are generally attenuated when the indirect effects are included, and are strongest for university attendance compared to other types of PSE participation.

This paper is closest in spirit to these last two papers. There are important differences mainly in the data utilized. Finnie, Laporte and Lascelles (2004) use two cross-sections of data (the 1991 School Leavers Survey (SLS) and the 2000 Youth in Transition Survey) while the Finnie, Lascelles and Sweetman piece used the 1991 SLS and its follow-up in 1995. The use of two cross-sections is important in giving researchers insights into changes over a period of time, but their use might cloud the dynamics of the PSE participation decision, since the same individuals are not followed over time. The SLS, by contrast, does follow the same individuals, but it does not offer the same wide variety of background variables contained in the YITS, the data which we use. The YITS has also been utilized by Raymond and Rivard (2004) to study the effects of tuition fees on PSE participation. Using only the 18-20 year-old cohort, they too find the importance of parental education and high school academic preparation are important indicators of PSE participation. Tomkowicz and Bushnik (2003) look at the pathways taken by young people following graduation from high school and find that attending PSE right away, delaying entry into PSE, and not entering PSE at all are correlated with family background as well as high school academic variables.² These studies, however, only used the YITS-B sample, which contains only 18-20 year olds, and does not contain as large a variety of early background variables compared to the YITS-A sample which interviews the same cohort of 15-year olds three times over a four-year period.³

What we have learned from recent studies is that the decision to attend (and to ultimately complete) PSE is a complex one and depends on a variety of financial and nonfinancial variables related to the student's family background, preparedness for post-secondary studies in terms of courses and activities taken during secondary studies. The existing work has also taught us that the inclusion of as many relevant variables seems desirable since many control variables in earlier studies were highly correlated with excluded variables, thus biasing coefficient estimates or and resulting in misguided policy recommendations. For example, recent Canadian studies generally show that the effect of tuition on the decision to attend PSE is practically nil once family income is taken into consideration, and family income itself is shown to be less important statistically and economically once parental education is included. Ironically, policy discussions still tend to focus on financial-related barriers to entry.

Carneiro and Heckman (2002) review the US literature and add new evidence supporting the paramount importance of long-term factors, such as family background, over short-term factors, such as credit constraints. Since many of these background factors are correlated with family income in the short-term period when PSE decisions are made, it is often erroneously stated that this short-term credit constraint is what prohibits low-income individuals from attending PSE. Earlier work by Cameron and Heckman (2001) and Keane and Wolpin (2001) also supports this conclusion. The implication of this research is that PSE participation is determined long before the period immediately preceding enrolment (or not) in higher education institutions and that relaxing short-term credit constraints would only have a minimal effect on participation.

In two recent Canadian studies, Frenette (2005, 2007) also casts doubt on the credit constraint hypothesis. In the former study, he uses the deregulation of professional program tuition in Ontario as a natural experiment. He discovers that it is students from middle class families who saw their participation in these programs decline the most, not those from lower-income families. In the second study, he shows that very little of the university participation gap between students from families in the first and fourth income quartiles can be explained by credit constraints. Rather

² Other recent studies that use the YITS, but do not model PSE participation include Bowlby and McMullen (2002) and Lambert, et al. (2004).

³ In all three waves, students themselves are interviewed. In the first wave, parents and high school administrators are also interviewed and provide valuable background information about the students. These latter two surveys are a real strength of the YITS-A sample.

it is the result of the standardized test scores and high school marks that explain the majority (and almost all) of the gap. The combined results of this body of work suggests that resources which are aimed at relaxing credit constraints, may be misdirected and might be better utilized at improving student performance at (or before) the high school level or providing better information to students and their families about the costs and benefits of education.

This is the point of departure for the current paper. We utilize the extensive background information contained in the YITS -A to address access to PSE in Canada. Specifically, we add to the existing literature by including a comprehensive set of background variables which are determined before entry into PSE to assess both the direct and indirect impact of these variables on access to college and university.

III. Methodology

The research uses a relatively standard empirical model for estimating access to PSE, where access is taken to be a function of the different sets of influences, working from a smaller set of regressors, including the principal family background variables conventionally included in such models, and building to a more comprehensive set of regressors representing the other kinds of influences measured in the YITS-A – thus moving from a “short” regression to progressively “longer” regressions. This methodology was used in earlier work on access by Finnie, Sweetman and Lascelles (2004) using the SLS.

The model may be expressed as follows:

$$Y = X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + \dots + \mu$$

where Y is the access measure of interest (any PSE or a particular level of PSE), the X_i are vectors of covariates that influence Y, the β_i are the coefficients associated with each set of X, and μ is the classical stochastic error term.

X_1 will comprise the most conventional family background variables such as family income, parental education, family type, etc. which are typically taken in the literature to be the important indicators of the advantages of family background in terms of going on to PSE. That is, individuals from higher income families or (especially) those with more highly educated parents are more likely to go on to PSE, particularly at the university level. These simpler/shorter models will capture the total effects of these variables on access, regardless of the path of those influences (i.e., direct or indirect).

X_2 will include the wider range of variables available in the YITS. One set is comprised of various (scholastic) “ability” measures, such as the individual’s high school grades, and other related indicators.

A next set of regressors (X_3) include more of the “softer” sorts of influences that have been gaining increasing attention as perhaps constituting some of the more important determinants of access to PSE. These include measures of “engagement” and “inclusion”, such as how connected the student felt to his or her high school, a student’s self-appraisal of confidence and competence, parental behaviours regarding monitoring and disciplining their children, etc.

It should be recognised that these additional influences do not necessarily have a natural, “econometrically-correct” ordering in terms of their inclusion, partly because we do not yet understand these processes very well. What is most important to this analysis, however, is that: (i) they are all determined before the entry of PSE (which is when they have been measured – i.e., during the earlier cycles of the YITS -A), (ii) they can affect access to PSE, and (iii) they might in turn be related to family background. Hence, including them will comprise an exercise in moving towards (i) identifying a fuller set of influences of access to PSE, and (ii) seeing how adding such

additional measures affects our understanding of the direct and indirect effects of family background on access to PSE.

Various specifications will be estimated in the remainder of the paper using multinomial logit models to differentiate between access to college and university. A potential program in the current exercise is the endogeneity of the right-hand side variables. For example, students who desire to get into university will likely work harder to achieve better grades at high school. Thus, high school grades are not exogenous. There are a variety of ways to overcome (although not necessarily eliminate) this endogeneity problem. We introduce a variety of background variables that have hitherto not been considered in the Canadian literature, but which we believe will be also determinants to PSE participation. This may not eliminate the bias caused by endogeneity, but it will attenuate some of this potential bias.

IV. Data

The Youth in Transition Survey – Sample A (YITS-A) initially interviewed 15-year olds, their parents, and their high school administrators in 2000. Two follow-up surveys of the young people only were conducted in 2002 and again in 2004. In this wave of the survey, the young people were 19-years of age, a time when most young people have either already entered PSE.

We limit the sample to include only those in the nine of the ten provinces, Quebec being the exclusion. Because Quebec has a special system of PSE – *Collège d'enseignement général et professionnel* or CEGEP as it is commonly known – students in Quebec only attend secondary education up to the equivalent of grade 11, and then attend CEGEP to either prepare for university degree (an additional two years) or to complete a technical program (usually an additional three years). Because of this system, those attending university in Quebec normally can complete their studies in three years, compared to four years outside of the province. We drop Quebec from our analysis since there is no way in these data to disaggregate the two streams, and this could potentially confound our analysis, i.e., university-bound students will be classified as college students, and there is no way to separate the two groups. The differentiation of college- and university-bound students is key to the analysis that follows. Observations from the territories are also eliminated, owing to small sample sizes.

PSE participation is the first program that a student entered, rather than the highest level attended. This is owing to the fact that more information is available on the first program than on subsequent programs for each individual as well as the fact that we are concerned with the transition from high school to PSE in this research. Since individuals who have studies outside of Canada might have quite different backgrounds and experiences, we eliminate them from the sample. For the same reason, non-Canadian citizens and those with unknown immigration status are dropped. Finally, we drop those individuals for which there are missing data as well as those who are continuing in high school, since we obviously do not observe any transition into PSE for this latter group. A full accounting of the observations dropped from the sample is contained in Appendix Table A1.

V. Results

A. Descriptive Analysis

The summary statistics for both males and females, separately and together, are presented in Table 1. Readers who would like to skip the details of these summary statistics and the simple cross-tabulations can skip ahead to the last paragraph of this section for a summary of the major results, or to the next sub-section which discusses the multivariate estimation results.

A few patterns are present from these data and worthy of note. PSE participation is 62.6 per cent for all youth in our sample, but is much higher for females than for males – 69.2 per cent versus 55.9 per cent. This total differential can entirely be accounted for by the higher university

participation rates of young women – 44.7 per cent versus 30.9 per cent for males. College participation rates for the sexes are almost identical. The higher university participation rate for young women is well known, at least amongst researchers. Any other differences between the young males and females in our sample are not obvious from the data in this table.

Table 2 disaggregates the data from Table 1 into males and females. The general patterns are the same for both sexes. The results shows that young people from urban areas much more likely to attend university. The Maritime provinces and Ontario have the highest rates of PSE participation in the country, while Alberta has the lowest, followed by Saskatchewan. Much of Ontario's high overall participation rate is owing to the proportion of young people attending college rather than university, whereas for the Maritimes high university participation rates – the highest in the country – explain the high overall rates. Family background also appears to be an important determinant of PSE attendance. Young people from two parent families are much more likely to attend PSE than those from other types of families, entirely due to their higher university participation rates.⁴ Parental education is also important as PSE participation in general, and university participation in particular, increases sharply with parental education. College education increases as parental education increases but then drops off if parents have attended any university or above. Mirroring the parental education influence is parental income level. Attendance in general, but especially at the university level, tends to increase with parental income. College attendance increases slightly as we move from the lowest income level, remains stable, and then decreases slightly again for children from families at the highest income level. Interestingly, minorities in Canada (whether they be visible minorities, immigrants, linguistic minorities) all have higher overall PSE participation rates in general, usually the result of higher university participation rates.

To summarize, the results from our sample show that the Maritime provinces and Ontario have the highest rates of PSE participation. In the former case, this is mainly due to high university participation rates whereas in the latter case it is due to higher-than-average college attendance. Females, urban residents, those from two-parent families, linguistic and racial minorities all have higher-than-average participation rates. Participation in PSE, especially university, tends to be increasing in the parental education and family income. College attendance first increases in these two variables and then decreases for children from families with the highest levels of education and income.

Of course, many of these preliminary results are likely to change once we formally model and estimate the relationships summarized above. This is the topic of the next section.

B. Multivariate Estimation Results

In this section we estimate the simple choice model outlined in Section III. We estimate a multinomial logit model whereby individuals either attend college, attend university, or do not attend either.⁵ Changes in the independent variables will jointly affect the university and college decisions of individuals and the marginal effects are what are presented in what follows. For example, changes in the parental income variable should be interpreted as the incremental effect on the probability of college and university attendance by changing this variable from the omitted category. The results from the estimation are presented in Table 3 for both females and males. In column 1 of both tables, we estimate a model with all the demographic variables as well as parental income. In column 2, both parental education and income are included.⁶

⁴ This is an interesting result and will be addressed in future research complementary to the current work.

⁵ We also estimate a logit model with attending PSE and not attending PSE as the options. The results are similar to those here and are presented in Appendix Table A4.

⁶ This specification of the model only includes parental education (the maximum of either the mother's or father's education) as well as family income (again the highest of the mother or the father in the two-parent family case). Alternative specifications of the model were done using the characteristics of both the mother and the father (e.g., education, immigration, status, etc.) for both two-parent and mother-only and father-only families. The results differ slightly from those presented here and, as mentioned above, will be addressed more comprehensively in a companion paper.

In general, the results in these tables are reflective of those already presented in the summary statistics, although there are some differences worthy of note. Both males and females from urban high schools are less likely to attend college than their rural counterparts, but more likely to attend university, bolstering support for the hypothesis that it is the location of universities and colleges that have an influence on who attends. In other words, urban students tend to be diverted away from colleges and into universities.

Some of the general differences in participation rates between provinces continues to be observed while other have disappeared: Prince Edward Island and Nova Scotia have significantly higher university participation rates compared to Ontario, but now so do all the provinces east of Alberta; only BC and Alberta have participation rates lower than Ontario in these results, but they are only significantly different from zero for females. The Atlantic Canada advantage at university is significant, both statistically and economically -- figures from about 11 percentage points for males in Newfoundland up to 20 percentage points for males in Nova Scotia. The positive values for Saskatchewan and Manitoba are more modest. All provinces have significantly lower college participation rates compared to Ontario, underlining the high college-participation rates in that province. Alberta and British Columbia are the only provinces that have participation rates that are lower than those of Ontario at both the college and university levels, although the latter results are only significant for females.

Family type no longer appears to be an important correlate of PSE attendance, whereas in the summary statistics both males and females from two-parent families showed higher rates of both university and college attendance compared to those who were not. Butlin (1999) arrives at a similar result. Visible minority status by itself is positive and significant throughout as is being a naturalized Canadian citizen, at least for university attendance. The interaction between of these two terms yields unimportant coefficient values.

University attendance is increasing in parental income for both males and females regardless of the specification. However, once controls for parental education are also added to the model, the importance of income is diminished greatly, and becomes insignificantly different from zero in many cases. Thus, it seems to be parental education as well as parental income which are determining university, but not college participation rates. College participation is significantly related to parental education, but not to parental income. To put the relative importance of these factors into perspective, a jump in parental income from the \$5,000- \$25,000 range to the \$50,000-\$75,000 range (the control group) would increase university participation by 10.2 percentage points for females. Having at least one parent with a BA degree, would increase participation at university by 29.9 percentage points compared to the control group (high school graduates). The general result that parental education is a stronger predictor of university participation than parental income has also been found in the Canadian studies by Knighton and Mirza (2002), Drolet (2005), and Rahman, et al (2005).

Next we turn our attention to analysing the grades that students receive in high school at the time of the first wave of the survey in 2000 when these young people were 15-years old and the influence that these have on access to PSE. The condensed results of these estimations are presented in Table 4 (with full results in Appendix Table A5). Adding the overall numerical high school grade to the model results in lower college participation and higher university participation, although the results are not symmetric; the estimates suggest that a ten-percentage point higher grade average in high school will result in about a three-percentage point decrease in college attendance, but about a 21 per cent increase in university participation. These results are almost identical for females and males.⁷ Numerical high school grades in each of math, language, and

⁷ Categorical grades were also tried in place of the continuous numerical grades in these two tables (e.g., 50-60%, 60-70%, etc.). The results were essentially the same as those presented here, i.e., those with higher grades were less likely to participate in college but more likely to participate in university. The numerical grades presented here were derived from the means of these categorical variables (e.g., 60-70 per cent equals 65 per cent, etc.).

science, also yield coefficients of the same sign although a smaller magnitude, suggesting that it is overall grades, rather than any individual grade, that is important in determining participation in university or college.⁸ Indeed, when the model is jointly estimated with all grades included, it is still the overall grade that is of paramount importance in determining university attendance. An interesting result is that the math grade is numerically the least important in determining university attendance, whether this enters the model individually or jointly. The lack of numeracy skills (at least as reflected by the math grade) does not appear to be as important as the language grade in any of the specifications for either sex.

Another interesting result from this set of estimates requires a little more explanation. Here we compare the results in column 3 of Table 3 with those in Appendix Table A5 (which contain the full results of the models estimated for Table 4); in essence, the former estimates provide a base case for which the grade variables are added, both individually and jointly. The effect of parental income remains relatively unchanged, whereas the effect of parental education on university attendance is attenuated by about one-third in both the cases of males and females. This suggests that the influence of parental education works, at least in part, through high school grades. This result is worthy of further investigation since it is not clear the mechanism through which this influence operates.

The YITS survey includes a number of “scale” variables which are indices derived from the data collected for the survey. These variables are designed to measure various aspects of a student's engagement in high school, the student's self-esteem, parental behaviours, etc. A full description of these variables can be found in Appendix Table A2. These variables, with the exception of reading ability (see below), are normalized at mean zero and a standard deviation of one. This is important when interpreting the results below.

The influence of scale variables on college and university attendance is addressed in Table 5 for both males and females. These are entered into the basic model (again, column 3 of Table 3) individually and then jointly in the final column of these tables. Each of the three high school engagement variables (as well as the two subcategories under that comprise the academic engagement variable) is positively related to university attendance, but have little influence on college attendance. The most important of these is academic participation (a measure of attending school, doing homework, etc.) which is important both directly, and indirectly through academic engagement (a simple average of academic participation and academic identification – basically a measure of valuing and belonging at school). For females, being one standard deviation above the mean on this academic participation scale increases university attendance by about 13.9 percentage points. For males, this figure is about 10.6 percentage points. Thus, students who attend class regularly, complete assignments on time, and spend more time studying, are much more likely to attend university than those who do not do these (at least according to this measure). Furthermore, this is a much more powerful predictor of university attendance compared to any of the other high school engagement variables. In addition, the influence of parental education experiences a decline once academic participation is included, suggesting that the two variables are positively correlated.

Self-perception would also seem to be an important determinant of PSE participation. This category is divided into three subcategories: self-esteem is a measure of self-worth and self-acceptance; self-efficacy is the student's own perception of his competence and confidence in performing class work; and self-mastery is a measure of being in control of one's own destiny.

⁸ Obviously we do not address program of study. Individual subject grades may be more important for entry into some specialized programs at colleges or universities (e.g., math grades for engineering sciences). But since most students, at least at the university level, enter a general studies program before declaring a major, it is not surprising that the overall grades are what are important. Another interesting result from this exercise (compare Tables 4 and A5) is the effect of parental education at the university level or above is attenuated by about one-third in both the male and female cases, whereas the influence of family income remains relatively the same. This suggests that the influence of parental education, working through high school grades but not income, is a more important determinant of PSE participation, at least at the university level.

Students who score high on these measures might be more prepared to enter PSE. The results do show that all three are positively and significantly correlated with university attendance, at least when entered individually. Self-efficacy, however, has the largest coefficient for both males and females, about double the value of the others in this category, at least when estimated separately. Social support is important for males, but not for females.

Parental behaviour is divided into three subcategories: “monitoring behaviour” addresses how well parents feel informed about the activities of their children, while “nurturance behaviour” and “inconsistent discipline” are both fairly self-explanatory. Of these, monitoring behaviour is both positively related to university attendance for both males and females, although nurturing is important only for males. Neither has any influence on college participation. Finally, inconsistent discipline is negatively related to participation in university, but not related to college participation.

Reading ability is also an important correlate of university attendance. This variable has a mean of 500 and a standard deviation of 100 and was created from the Programme for International Student Assessment (PISA) reading test results. The point estimates show that females who are one-standard deviation above the mean will on average have about a 23-percentage point increase in attending university. For males, the figure is 18 percentage points. Of note here is the fact that the coefficients on parental education do not change when the scale variables are added, implying that parental education and these variables are not related. The exception is reading ability which markedly decreases the value of the parental education at the bachelor's and graduate levels by up to one-third for both males and females (compare Table 3 with Table A6). The PISA reading score is a standardized test and these results are similar to those obtained by Carneiro and Heckman (2002) who also use standardized test scores to explain differences in college attendance in the United States. It is important to note that the PISA results are from administrative data collected from high schools, whereas the high school grades are self-reported. Finne and Meng (2005) have shown that these types of test score measures of skill perform better than self-assessments of skill. In particular, they use literacy as an example using both types of measures, and find that the self-assessed measure tends to lead to a significant underestimation of the effect of literacy on employment compared to the test measure. In the present work, this bias may also be present, as indicated by the decrease in the magnitude of the parental education variable (mainly at the BA and graduate school levels) when this standardized test score is included, versus when other self-assessed measure of ability are included in the models.⁹

When all these scale variables are considered together, the results still suggest little influence on college participation. For university attendance, however, academic participation, self-efficacy and reading ability all remain important both statistically and economically, although the relative magnitude of these variables differ. A one-standard deviation increase from the mean of academic participation would raise female university participation rates by about 8.8 percentage points. For males, the corresponding figure is 6.8 percentage points. One standard deviation above the mean on the self-efficacy scale means almost a five-percentage point increase in university attendance for both females and males. Reading ability, however, clearly has the largest effect; with females one-standard deviation above the mean some 19 percentage points more likely to attend university and males 15 percentage points more likely. The mean university participation rates for males and females in our sample are 44.7 per cent for males, and 30.9 per cent for females, so reading ability accounts for almost half of the likelihood of attending university for either sex. Since reading ability is a skill derived over a period of time, this result is also consistent with the earlier work on this subject by Cameron and Heckman (2001) and Carneiro and Heckman (2002), both of which point to the importance of long-term family factors in determining success in PSE.

⁹ One only needs to compare the decline in the BA and graduate school coefficient values in Tables A5 and A6 when measures of reading ability are included. In the former table, it is the main language grade of the last year in high school (self-reported) which is included whereas in the latter table it is the administrative PISA reading test score. Inclusion of the self-reported measure results in a modest decline in the influences of parental education, whereas in the latter case these drops are quite dramatic.

The general results presented above are consistent with the sparse Canadian literature on this subject. Finnie, Lascelles and Sweetman (2005) also find that including a variety of high school grades and other background variables reduces the influence of parental education on access. They also find that parental education is still an important influence after these grades and background variables are taken into consideration, especially at the university level. Our results are similar.

What can we make of these results taken together? The fact that higher high school grades, more academic participation, and higher PISA reading ability results, are important determinants of university education seems obvious. The lesson here is that working hard and being responsible about one's studies is important. In short, a good work ethic matters. This work ethic is also related to parental education (especially parents with a BA or above) as the coefficients on parental education become less important determinants of university participation when these background variables are added to the model. The transmission mechanism from parent to child, however, cannot be ascertained from the above estimates. It is likely that the parents of children who scored well on these measures, would themselves have had such high scores on the same variables which is why (at least in part) they too have high levels of education. What is not clear from this analysis is how this work ethic is passed from parent to child: do highly educated parents push their children harder, or is this work ethic transmitted by some other mechanism? The generally small and often insignificant coefficients on the parental behaviour variables seem to provide some supporting evidence for the latter explanation. In any case, they do underline the importance of family background and natural skill endowments as emphasized by Cameron and Heckman (2001), Keane and Wolpin (2001), Carneiro and Heckman (2002), to name but three of these studies.

VI. Conclusions and Policy Implications

This research has addressed how the backgrounds of high school graduates are related to access to both college and university in Canada. There are several interesting results that can be derived from this work.

First, in accordance with earlier studies, the impact of parental income is reduced once the level of parental education is taken into account. In particular, higher levels of parental education tend to increase the probability that an individual will attend university, and reduce the probability that he or she will attend college. The former positive effect, however, is stronger than the latter negative effect, implying that there is a general increase in PSE participation and that students are diverted from college to university.

Second, once parental education is taken into consideration, family income has practically no influence on college attendance. This is likely due, at least in part, to the fact that college tuition is generally lower than university tuition and hence accessibility for students from low-income families may not be at a disadvantage when accessing this type of PSE. Ultimately, a number of the students enrolled at the college level may transfer to universities, especially in provinces such as British Columbia and Alberta where the college and university systems tend to be well integrated, thus easing the transition for students. Further research on accessibility and the integration of college and universities would be most worthwhile, especially since it could mean increased access to university for students from low-income families.

Third, overall high school grades, as well as the three subject grades under consideration, tend to be positively correlated with university attendance, but are only weakly and negatively correlated with college attendance. Further, it is the overall high school grade which has the largest influence on university attendance, rather than any individual subject grade. This is an interesting result since it is often assumed that language arts and mathematics grades are what are the most important. Still, this result makes sense in light of the fact that most students take a general studies program upon entering university, so it is not surprising that the universities themselves

might prefer individuals who are better overall academically compared to students who excel at one or two subjects. These results also make sense in light of the university and college systems in Canada. The former system is largely exclusive, with admittance being largely based on high school grades. The latter system is largely inclusive by having lower standards of admission.

Fourth, engagement at high school, especially academic participation, is an important determinant of university participation, but not college participation. In fact, it is the most important of all the engagement variables, although self-efficacy (or a feeling of competence and confidence at school) is also demonstrably important. The largest determinant of university participation, however, is the score on the reading portion of the PISA.

Fifth, when either high school grades, academic participation, or the reading score on the PISA are added to the basic model, the direct effect of parental education is diminished, but not eliminated. The largest drop in parental education comes from the inclusion of the PISA reading ability score, arguably a much more reliable indicator of ability compared to the other background variables (which are self-reported). In other words, parental education works through both of these sets of variables to influence PSE choice. We cannot tell from these estimates, the path that this influence takes, although it seems certain that hard-working students do better at finding a spot in university. This could be the result of highly educated parents expected more of their children – and having this expectation realized on average, or it could be the result some other characteristic passed on from parent to child which is correlated with parental education, but not observed nor controlled for in the estimates. Further disentangling this result might be a fruitful avenue for future research.

Although we may not have a strong idea of the mechanisms by which highly educated parents pass along characteristics to their children – ones which ultimately result in their children successfully entering university – it is clear from our results that family background is important, at least as measured by parental education. Furthermore, it is a much more important indicator of PSE participation – at university in particular – than parental income.

The policy implications of this research are not straightforward. We know that parental education and parental income are important determinants in whether children access PSE, and also at what level. Parental education is correlated with other background variables that are themselves important determinants of PSE participation. It is unrealistic to expect policy to change the exigent level of parental education, although policy could influence its level for today's young people, when they themselves are parents. Therefore, the short-term policy focus must be on the correlates of parental education, in particularly those that can be reasonably expected to be changed by policy. In our model, these are factors such as academic participation and reading ability, as well as high school grades, all of which are positively correlated. How these factors are determined is far beyond the scope of this paper, but they are likely developed early in life, so targeting these characteristics then seems like an important consideration for policy makers.

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Table 1 - Descriptive Statistics

	All		Female		Male	
	%	S.E.	%	S.E.	%	S.E.
Number of observations	16,163		8,311		7,852	
Sex						
Male	49.8	[0.6]				
Female	50.2	[0.6]				
PSE Participation (1st PSE program)						
No PSE	37.4	[0.6]	30.8	[0.8]	44.1	[0.9]
Any PSE	62.6	[0.6]	69.2	[0.8]	55.9	[0.9]
Trade/College	24.7	[0.5]	24.5	[0.8]	25.0	[0.8]
University	37.9	[0.6]	44.7	[0.8]	30.9	[0.8]
PSE Participation (1st PSE program at 1st institution)						
No PSE	37.4	[0.6]	30.8	[0.8]	44.1	[0.9]
Any PSE	56.9	[0.6]	62.0	[0.8]	51.7	[0.9]
Trade/College	24.6	[0.5]	24.3	[0.8]	24.9	[0.8]
University	32.3	[0.6]	37.7	[0.8]	26.8	[0.7]
Unmatched program level and institution type	5.7	[0.3]	7.2	[0.4]	4.2	[0.3]
HS Region						
Rural	23.9	[0.5]	24.2	[0.7]	23.5	[0.7]
Urban	76.1	[0.5]	75.8	[0.7]	76.5	[0.7]
HS Province						
Newfoundland and Labrador	2.7	[0.1]	2.8	[0.1]	2.6	[0.1]
Prince Edward Island	0.7	[0.0]	0.7	[0.0]	0.7	[0.0]
Nova Scotia	4.2	[0.1]	4.3	[0.2]	4.1	[0.2]
New Brunswick	3.4	[0.1]	3.7	[0.1]	3.2	[0.1]
Ontario	48.0	[0.6]	48.6	[0.9]	47.3	[0.9]
Manitoba	4.9	[0.1]	4.7	[0.2]	5.0	[0.2]
Saskatchewan	5.2	[0.1]	5.1	[0.2]	5.4	[0.2]
Alberta	13.7	[0.3]	13.1	[0.5]	14.4	[0.5]
British Columbia	17.2	[0.4]	17.0	[0.6]	17.4	[0.6]
French minority outside QC						
No	96.5	[0.2]	96.1	[0.2]	96.8	[0.2]
Yes	3.5	[0.2]	3.9	[0.2]	3.2	[0.2]
Family Type						
Two parents	84.1	[0.5]	82.7	[0.7]	85.6	[0.6]
Mother only	12.4	[0.4]	13.9	[0.6]	10.9	[0.6]
Father only	2.1	[0.2]	2.0	[0.2]	2.2	[0.3]
Other	1.4	[0.1]	1.5	[0.2]	1.4	[0.2]
Visible Minority						
Visible minority	14.2	[0.5]	14.7	[0.7]	13.7	[0.6]
Non-visible minority	85.8	[0.5]	85.3	[0.7]	86.3	[0.6]
Immigrant Status						
Canadian by birth	91.0	[0.4]	90.8	[0.6]	91.3	[0.5]
Canadian by immigration	9.0	[0.4]	9.2	[0.6]	8.7	[0.5]
Visible Minority & Canadian by immigration						
No	95.2	[0.3]	94.9	[0.4]	95.4	[0.4]
Yes	4.8	[0.3]	5.1	[0.4]	4.6	[0.4]
Parental/guardian's Education						
Less than HS	7.3	[0.3]	7.8	[0.5]	6.8	[0.4]
HS completed	20.7	[0.5]	20.6	[0.7]	20.8	[0.7]
Some PSE	7.4	[0.3]	7.8	[0.5]	7.0	[0.4]
Trade/College	32.1	[0.6]	31.9	[0.8]	32.3	[0.8]
University-below BA degree	4.2	[0.2]	4.4	[0.3]	4.1	[0.4]
University-BA	18.5	[0.5]	17.6	[0.6]	19.5	[0.7]
University-Grad	9.6	[0.4]	9.8	[0.5]	9.4	[0.5]
Other/unknown	0.1	[0.0]	0.1	[0.1]	0.1	[0.1]
Parental Income Level						
Extremely low (\$0-\$5000)	1.2	[0.1]	1.3	[0.2]	1.2	[0.2]
\$5000 to \$25000	6.9	[0.3]	7.5	[0.4]	6.2	[0.4]
\$25000 to \$50000	24.0	[0.5]	24.6	[0.7]	23.3	[0.7]
\$50000 to \$75000	28.2	[0.5]	28.9	[0.8]	27.6	[0.8]
\$75000 to \$100000	24.0	[0.5]	22.5	[0.7]	25.6	[0.8]
\$100000 and up	15.7	[0.4]	15.2	[0.6]	16.2	[0.7]

Table 2 - PSE, College and University Participation Rates by Individual Characteristics, Females and Males

	Any PSE		College		University	
	Females	Males	Females	Males	Females	Males
Overall	69.2	55.9	24.5	25.0	44.7	30.9
HS Region						
Rural	67.1	47.8	30.8	26.3	36.3	21.4
Urban	69.9	58.4	22.4	24.5	47.4	33.9
HS Province						
Newfoundland and Labrador	68.4	53.7	21.7	23.9	46.7	29.8
Prince Edward Island	73.1	62.0	15.1	18.7	58.0	43.3
Nova Scotia	75.2	66.3	15.8	19.3	59.4	47.1
New Brunswick	72.4	55.2	18.6	19.3	53.7	35.9
Ontario	75.8	61.8	28.8	31.3	47.1	30.5
Manitoba	64.1	45.0	16.7	11.6	47.4	33.4
Saskatchewan	59.3	46.1	18.2	16.4	41.1	29.8
Alberta	56.3	43.5	21.3	18.2	35.0	25.3
British Columbia	62.3	54.0	22.8	22.6	39.5	31.4
French minority outside QC						
No	68.9	55.7	24.2	24.7	44.7	31.1
Yes	76.1	60.6	30.2	33.0	45.9	27.6
Family Type						
Two parents	70.9	57.5	24.3	25.3	46.7	32.2
Mother only	63.6	46.7	26.4	22.7	37.1	24.0
Father only	57.7	49.8	23.2	26.3	34.6	23.6
Other	40.0	40.7	17.7	20.6	22.3	20.1
Visible Minority						
Visible minority	79.0	69.4	22.6	24.0	56.5	45.5
Non-visible minority	67.5	53.7	24.8	25.1	42.7	28.6
Immigrant Status						
Canadian by birth	68.1	54.8	24.9	25.1	43.2	29.7
Canadian by immigration	79.8	67.6	19.7	23.8	60.1	43.8
Visible Minority & Canadian by immigration						
No	68.6	55.4	24.7	25.0	44.0	30.4
Yes	80.2	66.7	20.5	24.1	59.6	42.6
Parental/guardian's Education						
Less than HS	43.8	28.7	24.6	18.9	19.2	9.8
HS completed	59.8	44.2	28.8	27.3	31.1	16.9
Some PSE	68.2	48.9	32.8	26.7	35.5	22.1
Trade/College	65.5	53.0	27.4	28.8	38.0	24.2
University-below BA degree	83.3	62.2	19.4	27.7	63.9	34.5
University-BA	84.9	71.5	18.9	21.3	66.0	50.2
University-Grad	88.1	82.0	11.3	16.3	76.8	65.6
Other/unknown	-	-	-	-	-	-
Parental Income Level						
Extremely low (\$0-\$5000)	55.7	49.8	14.1	25.7	41.6	24.2
\$5000 to \$25000	54.9	44.9	23.1	23.6	31.8	21.3
\$25000 to \$50000	59.9	48.8	25.1	25.3	34.8	23.5
\$50000 to \$75000	70.0	51.1	26.3	24.3	43.6	26.8
\$75000 to \$100000	74.2	62.3	25.0	25.8	49.2	36.5
\$100000 and up	83.5	68.6	20.5	24.6	63.0	44.0

Note: For clarity purposes, standard errors have been suppressed. This table, with standard errors, is reproduced as Appendix Table A3.

**Table 3 - Multinomial Logit Estimates of Access to College and University
(Marginal Effects) - Females and Males**

	Females				Males			
	(1)		(2)		(1)		(2)	
	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0944*** [0.016]	0.0686*** [0.019]	-0.0825*** [0.016]	0.0351* [0.018]	-0.0486*** [0.016]	0.102*** [0.019]	-0.0445*** [0.016]	0.0755*** [0.018]
HS Province (ON)								
Newfoundland and Labrador	-0.130*** [0.022]	0.142*** [0.026]	-0.124*** [0.022]	0.137*** [0.025]	-0.111*** [0.023]	0.127*** [0.028]	-0.112*** [0.023]	0.109*** [0.026]
Prince Edward Island	-0.173*** [0.019]	0.216*** [0.025]	-0.163*** [0.019]	0.188*** [0.024]	-0.155*** [0.021]	0.238*** [0.029]	-0.150*** [0.022]	0.200*** [0.027]
Nova Scotia	-0.169*** [0.018]	0.219*** [0.023]	-0.158*** [0.019]	0.195*** [0.023]	-0.145*** [0.020]	0.242*** [0.026]	-0.137*** [0.021]	0.193*** [0.025]
New Brunswick	-0.163*** [0.019]	0.178*** [0.023]	-0.157*** [0.019]	0.160*** [0.023]	-0.165*** [0.020]	0.172*** [0.027]	-0.165*** [0.019]	0.157*** [0.025]
Manitoba	-0.148*** [0.020]	0.0784*** [0.026]	-0.147*** [0.020]	0.0780*** [0.025]	-0.215*** [0.016]	0.0898*** [0.029]	-0.211*** [0.016]	0.0768*** [0.027]
Saskatchewan	-0.139*** [0.019]	0.0437* [0.025]	-0.140*** [0.019]	0.0378 [0.023]	-0.170*** [0.018]	0.0825*** [0.025]	-0.174*** [0.018]	0.0673*** [0.023]
Alberta	-0.0909*** [0.020]	-0.0904*** [0.023]	-0.0957*** [0.019]	-0.0820*** [0.021]	-0.141*** [0.018]	-0.0244 [0.021]	-0.143*** [0.018]	-0.0269 [0.020]
British Columbia	-0.0592*** [0.020]	-0.0569** [0.022]	-0.0616*** [0.020]	-0.0596*** [0.021]	-0.0868*** [0.020]	0.00949 [0.022]	-0.0882*** [0.020]	-0.00658 [0.020]
French minority outside QC (All Others)	0.0464 [0.029]	0.0101 [0.032]	0.0520* [0.029]	0.0125 [0.031]	0.0574* [0.031]	-0.0135 [0.036]	0.0565* [0.030]	-0.0118 [0.032]
Family Type (Two Parents)								
Mother only	0.0153 [0.024]	0.0216 [0.029]	0.0183 [0.024]	0.0124 [0.028]	-0.0308 [0.024]	0.0107 [0.033]	-0.0289 [0.025]	-0.00589 [0.030]
Father only	-0.0116 [0.053]	-0.046 [0.066]	-0.0121 [0.052]	-0.0412 [0.060]	0.00461 [0.053]	-0.0546 [0.061]	0.0219 [0.056]	-0.0719 [0.055]
Other	-0.0305 [0.053]	-0.186*** [0.068]	-0.0368 [0.053]	-0.161** [0.063]	-0.0394 [0.058]	-0.0843 [0.084]	-0.0299 [0.064]	-0.0365 [0.10]
Visible minority (All others)	-0.000872 [0.027]	0.142*** [0.031]	0.0111 [0.027]	0.114*** [0.031]	-0.0103 [0.027]	0.187*** [0.032]	-0.00529 [0.027]	0.174*** [0.030]
Canadian by immigration (by birth)	-0.057 [0.035]	0.182*** [0.041]	-0.0297 [0.037]	0.111*** [0.041]	-0.0259 [0.038]	0.150*** [0.046]	-0.0026 [0.040]	0.0516 [0.044]
Visible Minority & Canadian by immigration (others)	0.000965 [0.063]	-0.0898 [0.062]	-0.00651 [0.062]	-0.0468 [0.062]	-0.0122 [0.055]	-0.112** [0.046]	-0.0188 [0.054]	-0.0682 [0.053]
Parental/guardian's Education (HS completed)								
Less than HS			-0.0353 [0.029]	-0.118*** [0.032]			-0.0691** [0.029]	-0.0676** [0.027]
Some PSE			0.0409 [0.033]	0.0454 [0.035]			0.0119 [0.031]	0.0585* [0.033]
Trade/College			-0.0103 [0.020]	0.0618** [0.024]			0.0212 [0.021]	0.0761*** [0.022]
University-below BA degree			-0.0811** [0.034]	0.302*** [0.040]			-0.00123 [0.039]	0.163*** [0.046]
University-BA			-0.0807*** [0.022]	0.299*** [0.027]			-0.0488** [0.022]	0.312*** [0.030]
University-Grad			-0.143*** [0.025]	0.372*** [0.032]			-0.0922*** [0.026]	0.451*** [0.035]
Other/unknown			-	-			-	-
Parental Income Level (\$50000 to \$75000)								
Extremely low (\$0-\$5000)	-0.101** [0.046]	-0.0773 [0.097]	-0.0951** [0.047]	-0.087 [0.095]	0.015 [0.071]	-0.0209 [0.080]	0.0159 [0.071]	0.00268 [0.069]
\$5000 to \$25000	-0.0226 [0.029]	-0.191*** [0.036]	-0.0288 [0.029]	-0.102*** [0.038]	0.016 [0.033]	-0.108*** [0.034]	0.03 [0.035]	-0.0481 [0.037]
\$25000 to \$50000	-0.000736 [0.019]	-0.124*** [0.023]	-0.00816 [0.020]	-0.0815*** [0.023]	0.0198 [0.020]	-0.0567*** [0.022]	0.0228 [0.020]	-0.0134 [0.021]
\$75000 to \$100000	-0.0121 [0.020]	0.0659*** [0.024]	0.00336 [0.020]	0.0205 [0.023]	0.00145 [0.019]	0.110*** [0.025]	0.0167 [0.020]	0.0401* [0.023]
\$100000 and up	-0.0526** [0.022]	0.198*** [0.025]	-0.0143 [0.023]	0.103*** [0.026]	-0.0105 [0.022]	0.191*** [0.028]	0.0191 [0.023]	0.0601** [0.026]
Observations	8311	8311	8311	8311	7852	7852	7852	7852

Note: Average marginal effects are shown. Standard errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Table 4 - Effects of High School Grades on Access to College and University (Marginal Effects), Females and Males

	Individually Estimated				Jointly Estimated			
	Females		Males		Females		Males	
	College	University	College	University	College	University	College	University
Overall grade	-0.0034*** [0.0008]	0.0219*** [0.0007]	-0.0033*** [0.0008]	0.0211*** [0.0006]	-0.0019* [0.0011]	0.0134*** [0.0012]	-0.0022* [0.0012]	0.0154*** [0.0011]
Math grade	-0.0010* [0.0005]	0.0080*** [0.0007]	-0.0012** [0.0006]	0.0101*** [0.0006]	0.0002 [0.0006]	0.0001 [0.0007]	-0.0002 [0.0007]	0.0007 [0.0007]
Main language grade	-0.0013* [0.0007]	0.0149*** [0.0007]	-0.0024*** [0.0007]	0.0137*** [0.0006]	-0.0003 [0.0008]	0.0038*** [0.0009]	-0.0019** [0.0008]	0.0029*** [0.0008]
Science grade	-0.0030*** [0.0004]	0.0133*** [0.0006]	-0.0012*** [0.0004]	0.0125*** [0.0005]	-0.0024*** [0.0005]	0.0075*** [0.0007]	-0.0001 [0.0005]	0.0053*** [0.0006]

Note: Average marginal effects are shown. Standard errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1. Full results are in Appendix Table A5.

Table A1: Arriving at the Final Sample

	Male			Female		
	% of obs. in the starting sample	% of lost in each stage of exclusion	# of obs. left	% of obs. in the starting sample	% of lost in each stage of exclusion	# of obs. left
Starting sample (YITS-A participants over all 3 cycles)			10,226			10,521
QC, Territories or Outside Canada						
PS institution in QC	13.79			17.19		
Last year of high school in QC	23.36			22.53		
HS attended at cycle1 is in QC	23.56			22.70		
Ever resident in QC	23.74			22.99		
Ever resident, taken HS or PSE in QC	24.13			23.72		
PS institution in Territories or outside Canada	0.66			0.89		
Last year of high school in Territories or outside Canada	0.39			0.57		
Ever resident in Territories or outside Canada	0.24			0.52		
Any of the above	25.00	25.00	8,415	25.03	25.03	8,713
HS continuer or status unknown	6.54	6.05	7,961	4.01	3.39	8,458
Non-Canadian citizen / immigrant status unknown	0.75	0.70	7,931	0.99	0.93	8,422
Missing values						
Unknown visible minority status	0.34	0.32	7,909	0.40	0.51	8,395
PSE						
Unknown level of PSE program	0.49			0.93		
Unknown type of PSE institution	0.19			0.48		
Unknown PSE	0.64	0.69	7,852	1.15	1.03	8,311
Missing values in scale variables						
HS Engagement						
Academic identification	-			-		
Academic participation	-			-		
Academic engagement	-			-		
Social engagement	-			-		
Overall engagement	-			-		
Self-perception						
Self-esteem	3.47			2.20		
Self-efficacy	1.32			0.77		
Self-mastery	3.96			2.40		
Social Support	1.14			0.89		
Parents' Behaviour						
Monitoring behaviour	-			-		
Nurturance behaviour	-			-		
Inconsistent discipline (Rejection-oriented behaviour)	-			-		
Reading Ability	0.14			0.19		
Missing value of any scale variable	5.64	4.91	7,426	3.76	3.70	8,049
Missing values in last year HS grades						
Overall grade in last year HS	2.77			1.97		
Math grade in last year HS	2.87			2.42		
Main language grade in last year HS	2.80			2.10		
Science grade in HS at cycle 1	8.79			6.39		
Missing value of any HS grade	12.82	9.42	6,685	9.46	6.62	7,486

Table A2 - Explanation of Scale Variables

General description:	All of the various scales used in the YITS 15-year-old Reading Cohort, and in the YITS 18-20 year-old Cohort are modeled after the Likert Scale (Likert, 1932). Scores released for YITS scales were based on an item response theory (IRT) approach. The IRT scores and their respective standard errors were estimated using weighted maximum likelihood (see Warm, 1989) and applying a generalized partial credit model. The generalized partial credit model is an extension of the two parameter logistic distribution to polytomous (categorical) data (Muraki, 1997). For estimating IRT scores, the population distribution of the scores was specified to have a mean of zero and a standard deviation of one. Once standardized, the respondent's estimated score, in this case, can be interpreted as the number of standard deviations of the population of interest above (if positive) or below (if negative) the mean.
High School Engagement Scale	
Overall school engagement	
Description:	Measures a respondent's overall engagement for the student's present school year, focusing upon examining behavioural factors.
Related Questions:	Derived by a simple average of the variables "academic engagement" and "social engagement".
Social engagement	
Description:	Defined as the identification with and behavioural involvement in the social aspects of school (the school social life). It involves both a feeling of belonging to the school's social environment and a sense of fit between the individual and the school. This connection reflects the extent to which students feel personally accepted, respected, included and supported by others in the school's social environment.
Related Questions:	<p>YSA9K People at school are interested in what I have to say;</p> <p>YSA9O I have friends at school whom I can talk to about personal things;</p> <p>YSA9P I have friends at school who can help me with school work, if needed;</p> <p>ST31Q01 My school is a place where I feel like an outsider;</p> <p>ST31Q02 My school is a place where I make friends easily;</p> <p>ST31Q03 My school is a place where I feel like I belong;</p> <p>ST31Q04 My school is a place where I feel awkward and out of place;</p> <p>ST31Q05 My school is a place where other students seem to like me;</p> <p>ST31Q06 My school is a place where I feel lonely.</p>
Academic engagement	
Description:	Defined as the identification with and behavioural involvement (participation) in the academic aspects of school. Academic aspects of school include the students' dealings with teachers, curricula, and the school governance.
Related Questions:	Derived by a simple average of the variables "academic participation" and "academic identification".
Academic participation	
Description:	Focusing on the first three levels of taxonomy to academic participation: the acquiescence to the need to attend school, to be prepared and to respond to directions and questions; students demonstrating initiative-taking behaviours; and participation in the social, extracurricular, and athletic aspects of school life in addition to or as a substitute for extensive participation in academic work.
Related Questions:	<p>YSA6 hours on homework outside of class during free periods and at home;</p> <p>YSA7 number of time I cut or skipped a class without permission;</p> <p>YSA8B I completed my assignments;</p> <p>ST32Q01 I completed homework on time;</p> <p>ST33Q01 On average, time spent each week on homework and study in these subject areas: test language, mathematics and science,</p> <p>ST33Q02 respectively.</p> <p>ST33Q03</p>
Academic identification	
Description:	Measures a respondent's academic identification with high school, the focus of attention is on two components of identification, valuing and belonging. A student who fails to identify with school is expected to have a lack of valuing for the school and a lack of feelings of belonging to the school.
Related Questions:	<p>YSA8I I get along well with teachers;</p> <p>YSA8J I am interested in what I am learning in class;</p> <p>YSA9E School is one of the most important things in my life;</p> <p>YSA9F Many of the things we learn in class are useless;</p> <p>YSA9G Most of my teachers don't really care about me</p> <p>YSA9H Most of the time, I would like to be any place other than in school;</p> <p>YSA9J Most of what I learn in school will be useful when I get a job;</p> <p>YSA9L School is often a waste of time;</p> <p>YSA9M School is more important than most people think;</p> <p>YSA9N Most of my teachers do a good job of teaching;</p> <p>ST30Q03 Most of my teachers really listen to what I have to say;</p> <p>ST30Q04 If I need extra help, I will receive it from my teachers;</p> <p>ST30Q05 Most of my teachers treat me fairly;</p> <p>ST31Q07 My school is a place where I do not want to go;</p> <p>ST32Q06 I am giving interesting homework.</p>
Self-perception:	
Self-esteem	
Description:	The self-esteem scale that was chosen for YITS is Morris Rosenberg's22 self-esteem scale (RSE) (Rosenberg, 1965, p.17). Rosenberg defines self-esteem as favourable or unfavourable attitudes towards self and proposes a series of ten questions to measure it. Within the context of YITS, RSE attempts to measure adolescents' global feelings of self-worth or self-acceptance.
Related Questions:	<p>YS11A I feel I am a person of worth, at least on an equal basis with others;</p> <p>YS11B I feel that I have a number of good qualities;</p> <p>YS11C All in all, I tend to feel that I am a failure;</p> <p>YS11D I am able to do things as well as most other people;</p> <p>YS11E I feel I do not have much to be proud of;</p> <p>YS11F I have a positive attitude toward myself;</p> <p>YS11G On the whole, I am satisfied with myself;</p> <p>YS11H I wish I could like myself more;</p> <p>YS11I I certainly feel useless at times;</p> <p>YS11J At times I think I am no good at all.</p>

Table A2 - Explanation of Scale Variables - cont.

Self-efficacy

Description: Defines academic self-efficacy as the student's competence and confidence in performance of class work as perceived by the student. This concept should be distinguished from global self-efficacy or mastery which is the belief that one has control over one's own destiny.

Related Questions:

YSA8K I am certain I can understand the most difficult material presented in texts;
 YSA8L I am confident I can understand the most complex material presented by teacher;
 YSA8M I am confident I can do an excellent job on assignments and tests;
 YSA8N I am certain I can master the skills being taught

Self-mastery

Description: The powerlessness scale chosen by YITS is based upon the work of Pearlin and Schooler (1978). This scale, referred to as the Mastery scale²⁵, assesses a feeling of powerlessness without reference to concrete life situations. Mastery can be defined as a measure that assesses "the extent to which one regards one's lifechances as being under one's own control in contrast to being fatalistically ruled" (Pearlin and Schooler, 1978). Hence, if one scores high on the mastery scale, one does not feel powerless.

Related Questions:

YSI2A Sometimes I feel I'm being pushed around in life;
 YSI2B What happens to me in the future mostly depends on me;
 YSI2C There is really no way I can solve some of the problems I have;
 YSI2D There is little I can do to change many of the important things in my life;
 YSI2E I often feel helpless in dealing with the problems of life;
 YSI2F I have little control over the things happen to me;
 YSI2G I can do just about anything I really set my mind to.

Social Support:

Description: Measures the availability of social supports, via friends, family and other sources for the youth. Three aspects are included: reliable alliance (the assurance that others can be counted upon for practical help), attachment (emotional closeness) and guidance (advice or information). These aspects are most directly related to problem-solving within the context of stress. Two items were proposed to measure each of these aspects for a total of six items.

Related Questions:

YSD1A If something went wrong, no one would help me;
 YSD1B I have family and friends who help me feel safe, secure and happy;
 YSD1C There is someone I trust whom I would turn to for advice if I were having problems;
 YSD1D There is no one I feel comfortable talking about problems with;
 YSD1E There is no one I feel close to;
 YSD1F There are people I can count on in times of trouble

Parents' Behaviours:

Parents who are supportive of their youth's education, who are involved in their youth's school and who have a firm but responsive parenting style have a positive influence on their youth's achievement and educational attainment. The parenting practices scales are designed to measure three facets of parenting: nurturance, inconsistent rejection-oriented discipline (rejection) and monitoring. An overall parenting scale was not formed from the three subscales.

Monitoring behaviour

Description: Measures parents' monitoring behaviour. A monitoring parent is defined as one who believes that he or she is knowledgeable about his or her child's activities, whereabouts and friends.

Related Questions:

PB17A Know where child goes at night;
 PB17D Know what child is doing when he/she goes out;
 PB17G Know who child spends time with when he/she goes out.

Nurturance behaviour

Description: Measures parents' nurturing behaviours. Nurturance represents child-centered effective parenting practices such as nurturance,

Related Questions: Derived from the frequency with which parents:

PB17C Praise child;
 PB17F Listen to child's ideas and options;
 PB17J Make sure child knows that they are appreciated;
 PB17M Speak of good things those children does;
 PB17O Seem proud of the things child does.

Inconsistent discipline (Rejection-oriented behaviour)

Description: measures parents' inconsistent discipline or rejection-oriented behaviours,

Related Questions:

PB17B Soon forget a rule that they have made;
 PB17E Nag child about little things;
 PB17H Keep rules only when it suits themselves;
 PB17I Get angry and yell at child;
 PB17L Threaten punishment more often than using it;
 PB17N Enforce or do not enforce rules depending on their mood

Student's performance score in reading

Description: Weighted likelihood estimate in reading ability, which is provided for all students who answered at least one reading question. It was transformed to a scale with a mean of 500 and a standard deviation of 100 by using the data for the participating OECD countries only (except the Netherlands).

Table A3 - Full Results from Table 2

	Females					
	Any PSE		College		University	
	%	S.E.	%	S.E.	%	S.E.
Overall	69.2	[0.8]	24.5	[0.8]	44.7	[0.8]
HS Region						
Rural	67.1	[1.4]	30.8	[1.4]	36.3	[1.4]
Urban	69.9	[0.9]	22.4	[0.9]	47.4	[1.0]
HS Province						
Newfoundland and Labrador	68.4	[1.9]	21.7	[1.6]	46.7	[2.0]
Prince Edward Island	73.1	[1.9]	15.1	[1.5]	58.0	[2.1]
Nova Scotia	75.2	[1.7]	15.8	[1.3]	59.4	[1.9]
New Brunswick	72.4	[1.6]	18.6	[1.3]	53.7	[1.7]
Ontario	75.8	[1.3]	28.8	[1.4]	47.1	[1.5]
Manitoba	64.1	[2.0]	16.7	[1.5]	47.4	[2.0]
Saskatchewan	59.3	[1.8]	18.2	[1.3]	41.1	[1.8]
Alberta	56.3	[1.7]	21.3	[1.5]	35.0	[1.7]
British Columbia	62.3	[1.7]	22.8	[1.4]	39.5	[1.7]
French minority outside QC						
No	68.9	[0.8]	24.2	[0.8]	44.7	[0.9]
Yes	76.1	[2.6]	30.2	[2.8]	45.9	[3.1]
Family Type						
Two parents	70.9	[0.8]	24.3	[0.8]	46.7	[0.9]
Mother only	63.6	[2.4]	26.4	[2.3]	37.1	[2.4]
Father only	57.7	[6.1]	23.2	[5.5]	34.6	[6.1]
Other	40.0	[6.8]	17.7	[5.0]	22.3	[5.4]
Visible Minority						
Visible minority	79.0	[2.0]	22.6	[2.1]	56.5	[2.5]
Non-visible minority	67.5	[0.8]	24.8	[0.8]	42.7	[0.9]
Immigrant Status						
Canadian by birth	68.1	[0.8]	24.9	[0.8]	43.2	[0.9]
Canadian by immigration	79.8	[2.6]	19.7	[2.7]	60.1	[3.2]
Visible Minority & Canadian by immigration						
No	68.6	[0.8]	24.7	[0.8]	44.0	[0.9]
Yes	80.2	[3.7]	20.5	[4.0]	59.6	[4.5]
Parental/guardian's Education						
Less than HS	43.8	[3.0]	24.6	[2.7]	19.2	[2.3]
HS completed	59.8	[1.9]	28.8	[1.8]	31.1	[1.7]
Some PSE	68.2	[2.8]	32.8	[3.0]	35.5	[2.9]
Trade/College	65.5	[1.4]	27.4	[1.3]	38.0	[1.4]
University-below BA degree	83.3	[2.5]	19.4	[3.2]	63.9	[3.7]
University-BA	84.9	[1.4]	18.9	[1.6]	66.0	[1.9]
University-Grad	88.1	[1.8]	11.3	[1.9]	76.8	[2.4]
Other/unknown	-	-	-	-	-	-
Parental Income Level						
Extremely low (\$0-\$5000)	55.7	[8.7]	14.1	[4.5]	41.6	[8.9]
\$5000 to \$25000	54.9	[3.0]	23.1	[2.5]	31.8	[2.9]
\$25000 to \$50000	59.9	[1.6]	25.1	[1.5]	34.8	[1.5]
\$50000 to \$75000	70.0	[1.4]	26.3	[1.4]	43.6	[1.5]
\$75000 to \$100000	74.2	[1.6]	25.0	[1.7]	49.2	[1.8]
\$100000 and up	83.5	[1.6]	20.5	[1.8]	63.0	[2.1]

cont . . .

Table A3 - Full Results from Table 2 - cont.

	Males					
	Any PSE		College		University	
	%	S.E.	%	S.E.	%	S.E.
Overall	55.9	[0.9]	25.0	[0.8]	30.9	[0.8]
HS Region						
Rural	47.8	[1.5]	26.3	[1.4]	21.4	[1.1]
Urban	58.4	[1.0]	24.5	[0.9]	33.9	[1.0]
HS Province						
Newfoundland and Labrador	53.7	[2.1]	23.9	[1.7]	29.8	[2.0]
Prince Edward Island	62.0	[2.2]	18.7	[1.8]	43.3	[2.2]
Nova Scotia	66.3	[1.9]	19.3	[1.6]	47.1	[2.0]
New Brunswick	55.2	[1.9]	19.3	[1.5]	35.9	[1.8]
Ontario	61.8	[1.6]	31.3	[1.5]	30.5	[1.4]
Manitoba	45.0	[2.0]	11.6	[1.2]	33.4	[1.9]
Saskatchewan	46.1	[1.7]	16.4	[1.2]	29.8	[1.6]
Alberta	43.5	[1.7]	18.2	[1.3]	25.3	[1.5]
British Columbia	54.0	[1.8]	22.6	[1.5]	31.4	[1.6]
French minority outside QC						
No	55.7	[0.9]	24.7	[0.8]	31.1	[0.8]
Yes	60.6	[3.1]	33.0	[3.0]	27.6	[3.0]
Family Type						
Two parents	57.5	[0.9]	25.3	[0.8]	32.2	[0.8]
Mother only	46.7	[2.8]	22.7	[2.5]	24.0	[2.3]
Father only	49.8	[6.1]	26.3	[6.2]	23.6	[5.1]
Other	40.7	[7.8]	20.6	[6.7]	20.1	[6.6]
Visible Minority						
Visible minority	69.4	[2.4]	24.0	[2.2]	45.5	[2.5]
Non-visible minority	53.7	[0.9]	25.1	[0.8]	28.6	[0.8]
Immigrant Status						
Canadian by birth	54.8	[0.9]	25.1	[0.8]	29.7	[0.8]
Canadian by immigration	67.6	[3.2]	23.8	[2.9]	43.8	[3.2]
Visible Minority & Canadian by immigration						
No	55.4	[0.9]	25.0	[0.8]	30.4	[0.8]
Yes	66.7	[4.5]	24.1	[4.3]	42.6	[4.5]
Parental/guardian's Education						
Less than HS	28.7	[3.1]	18.9	[2.8]	9.8	[2.0]
HS completed	44.2	[1.9]	27.3	[1.8]	16.9	[1.3]
Some PSE	48.9	[3.2]	26.7	[2.9]	22.1	[2.6]
Trade/College	53.0	[1.5]	28.8	[1.4]	24.2	[1.2]
University-below BA degree	62.2	[4.3]	27.7	[4.0]	34.5	[4.0]
University-BA	71.5	[1.7]	21.3	[1.7]	50.2	[2.0]
University-Grad	82.0	[2.2]	16.3	[2.2]	65.6	[2.7]
Other/unknown	-	-	-	-	-	-
Parental Income Level						
Extremely low (\$0-\$5000)	49.8	[8.3]	25.7	[7.7]	24.2	[6.6]
\$5000 to \$25000	44.9	[3.4]	23.6	[3.0]	21.3	[2.7]
\$25000 to \$50000	48.8	[1.7]	25.3	[1.6]	23.5	[1.4]
\$50000 to \$75000	51.1	[1.6]	24.3	[1.4]	26.8	[1.4]
\$75000 to \$100000	62.3	[1.7]	25.8	[1.6]	36.5	[1.7]
\$100000 and up	68.6	[2.0]	24.6	[2.0]	44.0	[2.2]

Table A4 - Logit Estimates of Access to PSE (Marginal Effects) - Females and Males

	Females		Males	
	(1)	(2)	(1)	(2)
HS location - Urban (Rural)	-0.0334*	-0.0540***	0.0437**	0.0234
	[0.0174]	[0.0163]	[0.0193]	[0.0184]
HS Province (ON)				
Newfoundland and Labrador	0.0116	0.0142	0.0195	0.001
	[0.0229]	[0.0223]	[0.0270]	[0.0268]
Prince Edward Island	0.0391*	0.0231	0.0793***	0.0498*
	[0.0210]	[0.0211]	[0.0254]	[0.0256]
Nova Scotia	0.0490**	0.0368*	0.1006***	0.0619***
	[0.0198]	[0.0197]	[0.0233]	[0.0236]
New Brunswick	0.0136	0.0025	0.0061	-0.0093
	[0.0208]	[0.0203]	[0.0250]	[0.0247]
Manitoba	-0.0708***	-0.0701***	-0.1244***	-0.1333***
	[0.0242]	[0.0233]	[0.0258]	[0.0252]
Saskatchewan	-0.0962***	-0.1029***	-0.0857***	-0.1047***
	[0.0235]	[0.0227]	[0.0248]	[0.0241]
Alberta	-0.1810***	-0.1773***	-0.1637***	-0.1687***
	[0.0236]	[0.0226]	[0.0233]	[0.0226]
British Columbia	-0.1161***	-0.1216***	-0.0768***	-0.0953***
	[0.0227]	[0.0220]	[0.0239]	[0.0232]
French minority outside QC (All Others)	0.0573**	0.0657**	0.0501	0.0519
	[0.0284]	[0.0266]	[0.0336]	[0.0338]
Family Type (Two Parents)				
Mother only	0.0376	0.0315	-0.0242	-0.0375
	[0.0235]	[0.0232]	[0.0311]	[0.0317]
Father only	-0.0575	-0.0531	-0.0453	-0.0456
	[0.0550]	[0.0564]	[0.0601]	[0.0552]
Other	-0.2127***	-0.1946***	-0.1205	-0.0656
	[0.0700]	[0.0656]	[0.0755]	[0.0811]
Visible minority (All Others)	0.1386***	0.1234***	0.1709***	0.1635***
	[0.0246]	[0.0250]	[0.0300]	[0.0298]
Canadian by immigration (by birth)	0.1206***	0.0793**	0.1161**	0.0471
	[0.0354]	[0.0380]	[0.0495]	[0.0526]
Visible Minority & Canadian by immigration (All Others)	-0.0915	-0.0553	-0.1296*	-0.0896
	[0.0765]	[0.0742]	[0.0717]	[0.0731]
Parental/guardian's Education (HS completed)				
Less than HS		-0.1496***		-0.1359***
		[0.0355]		[0.0353]
Some PSE		0.0862***		0.0656*
		[0.0319]		[0.0363]
Trade/College		0.0480**		0.0920***
		[0.0225]		[0.0250]
University-below BA degree		0.2133***		0.1525***
		[0.0295]		[0.0484]
University-BA		0.2114***		0.2491***
		[0.0204]		[0.0260]
University-Grad		0.2247***		0.3462***
		[0.0264]		[0.0296]
Other/unknown		-0.3291		-0.3090***
		[0.2446]		[0.1032]
Parental Income Level (\$50000 to \$75000)				
Extremely low (\$0-\$5000)	-0.1823*	-0.1876*	-0.0043	0.0204
	[0.0995]	[0.0984]	[0.0839]	[0.0823]
\$5000 to \$25000	-0.2102***	-0.1291***	-0.0893**	-0.0134
	[0.0362]	[0.0347]	[0.0391]	[0.0403]
\$25000 to \$50000	-0.1219***	-0.0881***	-0.0333	0.0119
	[0.0229]	[0.0224]	[0.0243]	[0.0241]
\$75000 to \$100000	0.0518**	0.0234	0.1065***	0.0564**
	[0.0201]	[0.0200]	[0.0234]	[0.0232]
\$100000 and up	0.1416***	0.0880***	0.1719***	0.0780***
	[0.0189]	[0.0212]	[0.0255]	[0.0273]
Observations	8311	8311	7852	7852

Note: Average marginal effects are shown. Standard errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Table A5 - Full Results from Table 4

	Females									
	(1)		(2)		(3)		(4)		(5)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0810*** [0.0157]	0.0396** [0.0166]	-0.0821*** [0.0161]	0.0389** [0.0180]	-0.0803*** [0.0160]	0.0361** [0.0175]	-0.0886*** [0.0160]	0.0566*** [0.0170]	-0.0825*** [0.0159]	0.0534*** [0.0165]
HS Province (ON)										
Newfoundland and Labrador	-0.1202*** [0.0209]	0.1378*** [0.0235]	-0.1180*** [0.0216]	0.1296*** [0.0246]	-0.1277*** [0.0210]	0.1543*** [0.0242]	-0.1198*** [0.0209]	0.1453*** [0.0238]	-0.1172*** [0.0207]	0.1468*** [0.0233]
Prince Edward Island	-0.1427*** [0.0190]	0.1391*** [0.0227]	-0.1544*** [0.0192]	0.1577*** [0.0241]	-0.1493*** [0.0194]	0.1416*** [0.0239]	-0.1410*** [0.0189]	0.1444*** [0.0230]	-0.1401*** [0.0186]	0.1254*** [0.0226]
Nova Scotia	-0.1353*** [0.0184]	0.1405*** [0.0210]	-0.1494*** [0.0187]	0.1721*** [0.0224]	-0.1387*** [0.0192]	0.1510*** [0.0221]	-0.1354*** [0.0183]	0.1600*** [0.0216]	-0.1206*** [0.0188]	0.1251*** [0.0213]
New Brunswick	-0.1389*** [0.0183]	0.1290*** [0.0206]	-0.1505*** [0.0188]	0.1351*** [0.0223]	-0.1489*** [0.0187]	0.1422*** [0.0220]	-0.1261*** [0.0187]	0.1234*** [0.0207]	-0.1206*** [0.0186]	0.1122*** [0.0203]
Manitoba	-0.1357*** [0.0191]	0.0642*** [0.0235]	-0.1361*** [0.0200]	0.0535*** [0.0247]	-0.1336*** [0.0198]	0.0554*** [0.0239]	-0.1338*** [0.0193]	0.0698*** [0.0236]	-0.1207*** [0.0196]	0.0511*** [0.0237]
Saskatchewan	-0.1202*** [0.0186]	0.0035 [0.0214]	-0.1311*** [0.0188]	0.0295 [0.0229]	-0.1253*** [0.0189]	0.0071 [0.0224]	-0.1154*** [0.0189]	0.0013 [0.0222]	-0.0996*** [0.0192]	-0.0151 [0.0217]
Alberta	-0.1129*** [0.0187]	0.0025 [0.0203]	-0.0946*** [0.0194]	-0.0702*** [0.0216]	-0.1031*** [0.0192]	-0.0208 [0.0213]	-0.1036*** [0.0187]	-0.0419*** [0.0208]	-0.1072*** [0.0188]	0.008 [0.0203]
British Columbia	-0.0617*** [0.0193]	-0.0423** [0.0201]	-0.0652*** [0.0197]	-0.0545** [0.0212]	-0.0605*** [0.0197]	-0.0505** [0.0207]	-0.0505** [0.0197]	-0.0692*** [0.0204]	-0.0500** [0.0196]	-0.0577*** [0.0201]
French minority outside QC (All Others)	0.0419 [0.0270]	0.0175 [0.0249]	0.0522* [0.0293]	0.0067 [0.0299]	0.0425 [0.0294]	0.0249 [0.0307]	0.027 [0.0258]	0.0503* [0.0261]	0.0216 [0.0254]	0.0440* [0.0232]
Family Type (Two Parents)										
Mother only	0.02 [0.0233]	0.0136 [0.0248]	0.0194 [0.0239]	0.0162 [0.0278]	0.0192 [0.0239]	0.004 [0.0267]	0.0171 [0.0238]	0.004 [0.0263]	0.0181 [0.0238]	0.005 [0.0248]
Father only	-0.021 [0.0497]	0.0088 [0.0587]	-0.0257 [0.0499]	0.0057 [0.0685]	-0.0177 [0.0502]	-0.0097 [0.0587]	-0.0377 [0.0444]	0.0276 [0.0617]	-0.0357 [0.0457]	0.0414 [0.0577]
Other	-0.0334 [0.0540]	-0.1421** [0.0641]	-0.0315 [0.0537]	-0.1447** [0.0625]	-0.0308 [0.0545]	-0.1570*** [0.0557]	-0.0251 [0.0517]	-0.1301** [0.0542]	-0.0282 [0.0538]	-0.1046** [0.0529]
Visible minority (All others)	0.0065 [0.0250]	0.1070*** [0.0275]	0.0167 [0.0269]	0.1063*** [0.0304]	0.0082 [0.0262]	0.1185*** [0.0288]	0.0197 [0.0259]	0.0844*** [0.0281]	0.0114 [0.0248]	0.0982*** [0.0271]
Canadian by immigration (by birth)	-0.0257 [0.0362]	0.0892** [0.0348]	-0.0175 [0.0377]	0.0781** [0.0395]	-0.027 [0.0366]	0.0999*** [0.0372]	0.0027 [0.0383]	0.0655* [0.0389]	-0.0018 [0.0380]	0.0596* [0.0339]
Visible Minority & Canadian by immigration (others)	-0.0057 [0.0601]	-0.0351 [0.0546]	-0.0134 [0.0596]	-0.0478 [0.0588]	-0.016 [0.0584]	-0.0142 [0.0578]	-0.0591 [0.0515]	0.0027 [0.0599]	-0.0528 [0.0529]	-0.0063 [0.0537]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0374 [0.0293]	-0.0675** [0.0319]	-0.0392 [0.0292]	-0.1092*** [0.0324]	-0.0351 [0.0298]	-0.0972*** [0.0329]	-0.0431 [0.0284]	-0.0714** [0.0342]	-0.0449 [0.0294]	-0.0498 [0.0334]
Some PSE	0.0375 [0.0326]	0.0466 [0.0332]	0.035 [0.0328]	0.0484 [0.0353]	0.0333 [0.0327]	0.0269 [0.0336]	0.043 [0.0327]	0.042 [0.0332]	0.0311 [0.0328]	0.049 [0.0330]
Trade/College	-0.0102 [0.0201]	0.0436** [0.0217]	-0.0122 [0.0205]	0.0623*** [0.0238]	-0.0116 [0.0202]	0.0434* [0.0225]	-0.0062 [0.0201]	0.0395* [0.0223]	-0.0105 [0.0203]	0.0363* [0.0216]
University-below BA degree	-0.0442 [0.0369]	0.1868*** [0.0352]	-0.0772** [0.0344]	0.2821*** [0.0390]	-0.0708** [0.0350]	0.2478*** [0.0380]	-0.0378 [0.0362]	0.2057*** [0.0365]	-0.0337 [0.0368]	0.1623*** [0.0342]
University-BA	-0.0522** [0.0224]	0.1953*** [0.0249]	-0.0791*** [0.0223]	0.2802*** [0.0263]	-0.0644*** [0.0228]	0.2258*** [0.0262]	-0.0454** [0.0225]	0.2117*** [0.0256]	-0.0399* [0.0227]	0.1690*** [0.0250]
University-Grad	-0.0993*** [0.0284]	0.2424*** [0.0301]	-0.1329*** [0.0258]	0.3407*** [0.0320]	-0.1216*** [0.0272]	0.2792*** [0.0325]	-0.0955*** [0.0285]	0.2518*** [0.0314]	-0.0822*** [0.0302]	0.1991*** [0.0295]
Other/unknown	-	-	-	-	-	-	-	-	-	-
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	-0.1049** [0.0461]	-0.0642 [0.0935]	-0.1099** [0.0446]	-0.1059 [0.0932]	-0.1091** [0.0445]	-0.0344 [0.0897]	-0.1042** [0.0458]	-0.0527 [0.0913]	-0.1237*** [0.0407]	-0.0411 [0.1000]
\$5000 to \$25000	-0.0397 [0.0293]	-0.0728** [0.0365]	-0.0411 [0.0290]	-0.0892** [0.0391]	-0.0401 [0.0286]	-0.0670* [0.0352]	-0.0356 [0.0290]	-0.0491 [0.0361]	-0.0422 [0.0297]	-0.041 [0.0360]
\$25000 to \$50000	-0.0146 [0.0189]	-0.0615*** [0.0203]	-0.0118 [0.0195]	-0.0801*** [0.0224]	-0.0148 [0.0192]	-0.0601*** [0.0218]	-0.0145 [0.0192]	-0.0649*** [0.0214]	-0.0205 [0.0192]	-0.0544*** [0.0203]
\$75000 to \$100000	-0.0012 [0.0191]	0.0302 [0.0199]	-0.0006 [0.0201]	0.0124 [0.0221]	0.0024 [0.0200]	0.024 [0.0218]	-0.0063 [0.0193]	0.03 [0.0208]	-0.0094 [0.0191]	0.032 [0.0196]
\$100000 and up	-0.0055 [0.0226]	0.0893*** [0.0236]	-0.0142 [0.0232]	0.0974*** [0.0260]	-0.0138 [0.0231]	0.1041*** [0.0254]	-0.0119 [0.0225]	0.0900*** [0.0238]	-0.0103 [0.0225]	0.0842*** [0.0235]
Overall grade of last year HS (numerical)	-0.0034*** [0.0008]	0.0219*** [0.0007]							-0.0019* [0.0011]	0.0134*** [0.0012]
Math grade of last year HS (numerical)			-0.0010* [0.0005]	0.0080*** [0.0007]					0.0002 [0.0006]	0.0001 [0.0007]
Main language grade of last year HS (numerical)					-0.0013* [0.0007]	0.0149*** [0.0007]			-0.0003 [0.0008]	0.0038*** [0.0009]
Science grade of HS (numerical)							-0.0030*** [0.0004]	0.0133*** [0.0006]	-0.0024*** [0.0005]	0.0075*** [0.0007]
Observations	8204	8204	8136	8136	8160	8160	7869	7869	7642	7642

cont . . .

Table A5 - Full Results from Table 4 - cont.

	Males									
	(1)		(2)		(3)		(4)		(5)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0373**	0.0687***	-0.0436***	0.0830***	-0.0409**	0.0692***	-0.0387**	0.0840***	-0.0327*	0.0796***
	[0.0162]	[0.0158]	[0.0163]	[0.0170]	[0.0164]	[0.0171]	[0.0165]	[0.0168]	[0.0169]	[0.0162]
HS Province (ON)										
Newfoundland and Labrador	-0.1116***	0.1035***	-0.1114***	0.1141***	-0.1135***	0.1212***	-0.1021***	0.1001***	-0.1100***	0.1022***
	[0.0234]	[0.0236]	[0.0233]	[0.0253]	[0.0234]	[0.0259]	[0.0247]	[0.0262]	[0.0249]	[0.0250]
Prince Edward Island	-0.1404***	0.1493***	-0.1448***	0.1777***	-0.1379***	0.1611***	-0.1262***	0.1384***	-0.1316***	0.1307***
	[0.0221]	[0.0242]	[0.0218]	[0.0264]	[0.0222]	[0.0259]	[0.0233]	[0.0259]	[0.0232]	[0.0242]
Nova Scotia	-0.1243***	0.1499***	-0.1316***	0.1771***	-0.1257***	0.1553***	-0.1276***	0.1589***	-0.1267***	0.1399***
	[0.0208]	[0.0219]	[0.0209]	[0.0241]	[0.0211]	[0.0239]	[0.0214]	[0.0237]	[0.0214]	[0.0227]
New Brunswick	-0.1526***	0.1136***	-0.1558***	0.1280***	-0.1600***	0.1409***	-0.1421***	0.1221***	-0.1434***	0.1127***
	[0.0199]	[0.0220]	[0.0199]	[0.0242]	[0.0197]	[0.0243]	[0.0212]	[0.0238]	[0.0213]	[0.0222]
Manitoba	-0.2074***	0.0825***	-0.2053***	0.0650***	-0.2046***	0.0698***	-0.2136***	0.0687***	-0.2127***	0.0756***
	[0.0161]	[0.0230]	[0.0164]	[0.0251]	[0.0164]	[0.0250]	[0.0162]	[0.0250]	[0.0164]	[0.0229]
Saskatchewan	-0.1663***	0.0475**	-0.1668***	0.0796**	-0.1663***	0.0627***	-0.1746***	0.032	-0.1708***	0.0387*
	[0.0178]	[0.0198]	[0.0180]	[0.0223]	[0.0180]	[0.0221]	[0.0177]	[0.0218]	[0.0183]	[0.0204]
Alberta	-0.1484***	0.0141	-0.1384***	-0.0129	-0.1455***	0.0146	-0.1405***	-0.0137	-0.1490***	0.0202
	[0.0177]	[0.0178]	[0.0180]	[0.0192]	[0.0181]	[0.0195]	[0.0182]	[0.0190]	[0.0185]	[0.0182]
British Columbia	-0.0903***	-0.0092	-0.0868***	0.0018	-0.0907***	0.0015	-0.0733***	-0.0372*	-0.0798***	-0.0278
	[0.0198]	[0.0178]	[0.0201]	[0.0195]	[0.0201]	[0.0197]	[0.0210]	[0.0197]	[0.0210]	[0.0184]
French minority outside QC (All Others)	0.0462	0.0012	0.0496	-0.0101	0.0455	0.0054	0.05	0.0023	0.0427	-0.0039
	[0.0307]	[0.0304]	[0.0306]	[0.0324]	[0.0289]	[0.0339]	[0.0305]	[0.0295]	[0.0305]	[0.0279]
Family Type (Two Parents)										
Mother only	-0.034	0.0079	-0.027	-0.0043	-0.0266	-0.004	-0.0349	0.0077	-0.0344	0.0049
	[0.0241]	[0.0244]	[0.0249]	[0.0286]	[0.0251]	[0.0278]	[0.0248]	[0.0280]	[0.0251]	[0.0256]
Father only	0.0139	-0.0368	-0.0007	-0.0498	0.0156	-0.0462	0.0085	-0.0499	-0.0286	-0.0095
	[0.0531]	[0.0499]	[0.0510]	[0.0523]	[0.0555]	[0.0534]	[0.0573]	[0.0561]	[0.0502]	[0.0527]
Other	-0.0484	0.009	-0.0361	-0.0132	-0.0362	0.0104	-0.0268	-0.0023	-0.0411	0.02
	[0.0557]	[0.0759]	[0.0601]	[0.0919]	[0.0632]	[0.1050]	[0.0630]	[0.0937]	[0.0588]	[0.0763]
Visible minority (All others)	0.0195	0.1027***	-0.0035	0.1477***	-0.0034	0.1618***	0.0192	0.1232***	0.024	0.0993***
	[0.0287]	[0.0256]	[0.0270]	[0.0284]	[0.0268]	[0.0274]	[0.0284]	[0.0272]	[0.0292]	[0.0256]
Canadian by immigration (by birth)	-0.017	0.0134	0.0131	0.0088	-0.002	0.0609	-0.0136	0.0011	-0.0278	0.0046
	[0.0385]	[0.0328]	[0.0412]	[0.0406]	[0.0402]	[0.0413]	[0.0400]	[0.0395]	[0.0390]	[0.0337]
Visible Minority & Canadian by immigration (others)	-0.0208	-0.0314	-0.0319	-0.0452	-0.0321	-0.0558	-0.0139	-0.0399	-0.0184	-0.0314
	[0.0544]	[0.0427]	[0.0528]	[0.0515]	[0.0528]	[0.0516]	[0.0560]	[0.0520]	[0.0568]	[0.0451]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0624**	-0.0473*	-0.0721**	-0.0671**	-0.0717**	-0.0591**	-0.0594*	-0.0527*	-0.0551*	-0.0475*
	[0.0309]	[0.0248]	[0.0297]	[0.0273]	[0.0299]	[0.0276]	[0.0311]	[0.0269]	[0.0333]	[0.0259]
Some PSE	0.0185	0.0125	0.0136	0.0444	0.0157	0.0425	0.0236	0.0498	0.0276	0.0083
	[0.0317]	[0.0249]	[0.0315]	[0.0296]	[0.0315]	[0.0297]	[0.0326]	[0.0312]	[0.0332]	[0.0257]
Trade/College	0.0231	0.0517***	0.0182	0.0709***	0.0177	0.0641***	0.0177	0.0736***	0.0211	0.0483**
	[0.0213]	[0.0194]	[0.0212]	[0.0212]	[0.0212]	[0.0209]	[0.0214]	[0.0209]	[0.0220]	[0.0196]
University-below BA degree	0.0035	0.1146***	-0.0041	0.1518***	0.0036	0.1366***	-0.0068	0.1601***	-0.0021	0.1161***
	[0.0396]	[0.0397]	[0.0396]	[0.0441]	[0.0407]	[0.0425]	[0.0400]	[0.0423]	[0.0410]	[0.0417]
University-BA	-0.0309	0.1981***	-0.0428*	0.2707***	-0.0438**	0.2519***	-0.0466**	0.2369***	-0.0305	0.1692***
	[0.0224]	[0.0252]	[0.0223]	[0.0287]	[0.0220]	[0.0278]	[0.0223]	[0.0263]	[0.0230]	[0.0242]
University-Grad	-0.0575**	0.2869***	-0.0900***	0.3909***	-0.0723**	0.3455***	-0.0704**	0.3293***	-0.0510*	0.2416***
	[0.0286]	[0.0306]	[0.0268]	[0.0335]	[0.0282]	[0.0349]	[0.0284]	[0.0329]	[0.0298]	[0.0304]
Other/unknown	-	-	-	-	-	-	-	-	-	-
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	0.0249	-0.0261	0.0136	-0.0039	0.0172	-0.0096	-0.0389	-0.0042	-0.0333	-0.0316
	[0.0703]	[0.0496]	[0.0706]	[0.0629]	[0.0716]	[0.0614]	[0.0624]	[0.0708]	[0.0613]	[0.0549]
\$5000 to \$25000	0.0448	-0.0471	0.0363	-0.0338	0.0335	-0.0317	0.0262	0.0083	0.0467	-0.0127
	[0.0366]	[0.0341]	[0.0356]	[0.0365]	[0.0361]	[0.0380]	[0.0356]	[0.0395]	[0.0386]	[0.0371]
\$25000 to \$50000	0.0263	0.0004	0.0231	-0.0001	0.018	-0.0018	0.0221	-0.0033	0.0271	0.0097
	[0.0201]	[0.0183]	[0.0201]	[0.0206]	[0.0199]	[0.0201]	[0.0205]	[0.0200]	[0.0209]	[0.0185]
\$75000 to \$100000	0.0133	0.0410**	0.015	0.0425*	0.013	0.0359*	0.0019	0.0508**	0.0008	0.0438**
	[0.0194]	[0.0190]	[0.0197]	[0.0221]	[0.0195]	[0.0210]	[0.0195]	[0.0211]	[0.0194]	[0.0188]
\$100000 and up	0.02	0.0629***	0.0216	0.0669***	0.019	0.0570**	0.0163	0.0519**	0.0177	0.0608**
	[0.0228]	[0.0225]	[0.0234]	[0.0248]	[0.0231]	[0.0243]	[0.0235]	[0.0239]	[0.0233]	[0.0221]
Overall grade of last year HS (numerical)	-0.0033***	0.0211***							-0.0022*	0.0154***
	[0.0008]	[0.0006]							[0.0012]	[0.0011]
Math grade of last year HS (numerical)			-0.0012**	0.0101***					-0.0002	0.0007
			[0.0006]	[0.0006]					[0.0007]	[0.0007]
Main language grade of last year HS (numerical)					-0.0024***	0.0137***			-0.0019**	0.0029***
					[0.0007]	[0.0006]			[0.0008]	[0.0008]
Science grade of HS (numerical)							-0.0012***	0.0125***	-0.0001	0.0053***
							[0.0004]	[0.0005]	[0.0005]	[0.0006]
Observations	7677	7677	7626	7626	7643	7643	7223	7223	6924	6924

Note: Average marginal effects are shown. Standard errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1.

Table A6 - Full Results from Table 5

	Females									
	(1)		(2)		(3)		(4)		(5)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0836*** [0.0161]	0.0364** [0.0179]	-0.0806*** [0.0160]	0.0329* [0.0177]	-0.0828*** [0.0161]	0.0354** [0.0178]	-0.0829*** [0.0161]	0.0345* [0.0181]	-0.0832*** [0.0161]	0.0340* [0.0180]
HS Province (ON)										
Newfoundland and Labrador	-0.1216*** [0.0219]	0.1231*** [0.0253]	-0.1182*** [0.0217]	0.1153*** [0.0251]	-0.1176*** [0.0219]	0.1107*** [0.0252]	-0.1239*** [0.0217]	0.1377*** [0.0252]	-0.1231*** [0.0217]	0.1285*** [0.0252]
Prince Edward Island	-0.1618*** [0.0190]	0.1845*** [0.0241]	-0.1765*** [0.0180]	0.2262*** [0.0230]	-0.1675*** [0.0185]	0.2042*** [0.0234]	-0.1632*** [0.0190]	0.1874*** [0.0243]	-0.1637*** [0.0189]	0.1923*** [0.0238]
Nova Scotia	-0.1575*** [0.0186]	0.1891*** [0.0225]	-0.1739*** [0.0177]	0.2326*** [0.0217]	-0.1639*** [0.0182]	0.2082*** [0.0220]	-0.1585*** [0.0186]	0.1946*** [0.0226]	-0.1601*** [0.0185]	0.1987*** [0.0223]
New Brunswick	-0.1585*** [0.0186]	0.1667*** [0.0221]	-0.1686*** [0.0178]	0.1925*** [0.0213]	-0.1647*** [0.0181]	0.1842*** [0.0214]	-0.1572*** [0.0187]	0.1635*** [0.0225]	-0.1611*** [0.0185]	0.1753*** [0.0220]
Manitoba	-0.1470*** [0.0195]	0.0764*** [0.0245]	-0.1603*** [0.0188]	0.1195*** [0.0238]	-0.1528*** [0.0191]	0.0979*** [0.0240]	-0.1473*** [0.0196]	0.0767*** [0.0246]	-0.1480*** [0.0195]	0.0825*** [0.0243]
Saskatchewan	-0.1400*** [0.0186]	0.0376 [0.0232]	-0.1595*** [0.0179]	0.0929*** [0.0229]	-0.1489*** [0.0182]	0.0660*** [0.0229]	-0.1396*** [0.0186]	0.038 [0.0234]	-0.1417*** [0.0185]	0.0481*** [0.0232]
Alberta	-0.0961*** [0.0192]	-0.0796*** [0.0213]	-0.1010*** [0.0207]	-0.0632*** [0.0190]	-0.0988*** [0.0191]	-0.0692*** [0.0209]	-0.0956*** [0.0192]	-0.0827*** [0.0214]	-0.0957*** [0.0212]	-0.0790*** [0.0212]
British Columbia	-0.0635*** [0.0198]	-0.0494** [0.0212]	-0.0693*** [0.0196]	-0.0353* [0.0208]	-0.0681*** [0.0197]	-0.0355* [0.0209]	-0.0614*** [0.0199]	-0.0583*** [0.0214]	-0.0629*** [0.0199]	-0.0483** [0.0212]
French minority outside QC (All Others)	0.0540* [0.0294]	-0.0006 [0.0294]	0.0482* [0.0278]	0.0111 [0.0274]	0.0536* [0.0285]	-0.002 [0.0271]	0.0527* [0.0293]	0.0107 [0.0278]	0.0543* [0.0292]	0.0024 [0.0300]
Family Type (Two Parents)										
Mother only	0.0151 [0.0237]	0.0259 [0.0276]	0.0136 [0.0235]	0.0275 [0.0280]	0.0119 [0.0234]	0.0342 [0.0274]	0.0191 [0.0241]	0.0151 [0.0281]	0.0164 [0.0238]	0.0255 [0.0277]
Father only	-0.017 [0.0511]	-0.0197 [0.0593]	-0.0319 [0.0477]	0.0265 [0.0589]	-0.0284 [0.0487]	0.0171 [0.0586]	-0.0131 [0.0519]	-0.0387 [0.0596]	-0.0184 [0.0509]	-0.0146 [0.0592]
Other	-0.0326 [0.0535]	-0.1567*** [0.0592]	-0.0363 [0.0515]	-0.1142* [0.0587]	-0.0285 [0.0535]	-0.1386** [0.0573]	-0.0359 [0.0528]	-0.1597** [0.0626]	-0.0313 [0.0537]	-0.1470** [0.0590]
Visible minority (All others)	0.0146 [0.0273]	0.0993*** [0.0300]	0.0257 [0.0274]	0.0723** [0.0301]	0.0222 [0.0275]	0.0777*** [0.0295]	0.0105 [0.0272]	0.1131*** [0.0306]	0.0131 [0.0273]	0.0994*** [0.0302]
Canadian by immigration (by birth)	-0.0262 [0.0372]	0.0985** [0.0413]	-0.0134 [0.0380]	0.0653 [0.0400]	-0.0164 [0.0378]	0.0721* [0.0409]	-0.0292 [0.0368]	0.1131*** [0.0411]	-0.0251 [0.0371]	0.0999** [0.0410]
Visible Minority & Canadian by immigration (ot)	-0.0089 [0.0611]	-0.0437 [0.0629]	-0.0175 [0.0586]	-0.0144 [0.0600]	-0.0147 [0.0596]	-0.0251 [0.0621]	-0.0056 [0.0617]	-0.0427 [0.0623]	-0.0115 [0.0604]	-0.0291 [0.0621]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0346 [0.0290]	-0.1142*** [0.0321]	-0.0333 [0.0288]	-0.1091*** [0.0323]	-0.0334 [0.0291]	-0.1090*** [0.0326]	-0.0335 [0.0289]	-0.1159*** [0.0318]	-0.0334 [0.0289]	-0.1090*** [0.0323]
Some PSE	0.0398 [0.0330]	0.0444 [0.0347]	0.0439 [0.0325]	0.0328 [0.0328]	0.0406 [0.0327]	0.0384 [0.0332]	0.041 [0.0330]	0.0459 [0.0351]	0.0398 [0.0328]	0.044 [0.0340]
Trade/College	-0.0109 [0.0203]	0.0630*** [0.0237]	-0.0047 [0.0200]	0.0448* [0.0231]	-0.0084 [0.0201]	0.0545** [0.0232]	-0.0104 [0.0203]	0.0626*** [0.0239]	-0.0106 [0.0202]	0.0610*** [0.0235]
University-below BA degree	-0.0773** [0.0346]	0.2925*** [0.0391]	-0.0632 [0.0351]	0.2542*** [0.0404]	-0.0679 [0.0350]	0.2865*** [0.0391]	-0.0815** [0.0340]	0.3032*** [0.0394]	-0.0790** [0.0341]	0.2929*** [0.0389]
University-BA	-0.0780*** [0.0225]	0.2884*** [0.0268]	-0.0632*** [0.0225]	0.2496*** [0.0264]	-0.0687*** [0.0226]	0.2621*** [0.0266]	-0.0811*** [0.0224]	0.2968*** [0.0224]	-0.0772*** [0.0225]	0.2819*** [0.0265]
University-Grad	-0.1390*** [0.0250]	0.3568*** [0.0324]	-0.1226*** [0.0263]	0.3107*** [0.0325]	-0.1279*** [0.0262]	0.3226*** [0.0328]	-0.1428*** [0.0245]	0.3708*** [0.0318]	-0.1380*** [0.0251]	0.3511*** [0.0322]
Other/unknown	-0.1217 [0.1290]	-0.2256** [0.0965]	-0.1153 [0.1273]	-0.1454 [0.1346]	-0.116 [0.1289]	-0.1964* [0.1111]	-0.126 [0.1273]	-0.2228** [0.1000]	-0.1233 [0.1274]	-0.2315** [0.0927]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	-0.0969** [0.0471]	-0.0746 [0.0931]	-0.1028** [0.0451]	-0.0505 [0.0958]	-0.1002** [0.0460]	-0.0565 [0.0950]	-0.0923* [0.0476]	-0.0741 [0.0955]	-0.0975** [0.0467]	-0.0513 [0.0951]
\$5000 to \$25000	-0.0268 [0.0295]	-0.1150*** [0.0368]	-0.0277 [0.0293]	-0.1043*** [0.0367]	-0.0249 [0.0295]	-0.1173*** [0.0360]	-0.0283 [0.0294]	-0.0986*** [0.0376]	-0.0279 [0.0294]	-0.1031*** [0.0371]
\$25000 to \$50000	-0.0068 [0.0195]	-0.0891*** [0.0225]	-0.0093 [0.0193]	-0.0788*** [0.0225]	-0.0064 [0.0194]	-0.0885*** [0.0222]	-0.0077 [0.0195]	-0.0787*** [0.0228]	-0.0087 [0.0195]	-0.0784*** [0.0224]
\$75000 to \$100000	0.004 [0.0202]	0.0195 [0.0222]	0.0031 [0.0200]	0.0185 [0.0218]	0.0037 [0.0200]	0.0185 [0.0218]	0.0037 [0.0202]	0.0204 [0.0226]	0.0036 [0.0202]	0.0195 [0.0223]
\$100000 and up	-0.0154 [0.0231]	0.1038*** [0.0255]	-0.0117 [0.0230]	0.0936*** [0.0249]	-0.0147 [0.0229]	0.0989*** [0.0250]	-0.0142 [0.0233]	0.1057*** [0.0257]	-0.0166 [0.0230]	0.1070*** [0.0253]
HS Engagements										
Academic identification	0.004 [0.0076]	0.0643*** [0.0082]								
Academic participation			-0.0163** [0.0082]	0.1389*** [0.0089]						
Academic engagement					-0.007 [0.0079]	0.1183*** [0.0084]				
Social engagement							0.0114* [0.0067]	0.0229*** [0.0079]		
Overall engagement									0.0065 [0.0071]	0.0756*** [0.0080]
Self-perception:										
Self-esteem										
Self-efficacy										
Self-mastery										
Social Support:										
Parents' Behaviours:										
Monitoring behaviour										
Nurturance behaviour										
Inconsistent discipline (Rejection-oriented behaviour)										
Reading Ability:										
Observations	8311	8311	8309	8309	8309	8309	8311	8311	8309	8309

cont . . .

Table A6 - Full Results from Table 5 - cont.

	Females									
	(6)		(7)		(8)		(9)		(10)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0832*** [0.0162]	0.0376** [0.0182]	-0.0838*** [0.0160]	0.0396** [0.0176]	-0.0829*** [0.0162]	0.0348* [0.0182]	-0.0839*** [0.0162]	0.0326* [0.0182]	-0.0819*** [0.0161]	0.0334* [0.0181]
HS Province (ON)										
Newfoundland and Labrador	-0.1249*** [0.0215]	0.1397*** [0.0251]	-0.1213*** [0.0213]	0.1355*** [0.0248]	-0.1213*** [0.0216]	0.1290*** [0.0253]	-0.1268*** [0.0216]	0.1359*** [0.0252]	-0.1229*** [0.0217]	0.1370*** [0.0251]
Prince Edward Island	-0.1606*** [0.0188]	0.1875*** [0.0241]	-0.1604*** [0.0187]	0.1871*** [0.0234]	-0.1578*** [0.0189]	0.1811*** [0.0243]	-0.1636*** [0.0190]	0.1872*** [0.0244]	-0.1627*** [0.0189]	0.1893*** [0.0243]
Nova Scotia	-0.1573*** [0.0184]	0.1942*** [0.0225]	-0.1611*** [0.0180]	0.2068*** [0.0216]	-0.1527*** [0.0186]	0.1852*** [0.0227]	-0.1573*** [0.0187]	0.1902*** [0.0228]	-0.1567*** [0.0186]	0.1926*** [0.0228]
New Brunswick	-0.1556*** [0.0188]	0.1676*** [0.0223]	-0.1584*** [0.0181]	0.1760*** [0.0211]	-0.1521*** [0.0189]	0.1563*** [0.0225]	-0.1572*** [0.0189]	0.1604*** [0.0227]	-0.1555*** [0.0187]	0.1584*** [0.0224]
Manitoba	-0.1416*** [0.0196]	0.0716*** [0.0245]	-0.1491*** [0.0191]	0.0889*** [0.0238]	-0.1379*** [0.0198]	0.0638*** [0.0247]	-0.1496*** [0.0194]	0.0739*** [0.0247]	-0.1467*** [0.0195]	0.0772*** [0.0246]
Saskatchewan	-0.1373*** [0.0186]	0.034 [0.0234]	-0.1381*** [0.0185]	0.0445* [0.0227]	-0.1354*** [0.0186]	0.0295 [0.0235]	-0.1398*** [0.0186]	0.0372 [0.0236]	-0.1401*** [0.0186]	0.0423* [0.0236]
Alberta	-0.0916*** [0.0193]	-0.0916*** [0.0214]	-0.0975*** [0.0185]	-0.0678*** [0.0211]	-0.0899*** [0.0194]	-0.0931*** [0.0216]	-0.0957*** [0.0193]	-0.0805*** [0.0213]	-0.0945*** [0.0193]	-0.0837*** [0.0213]
British Columbia	-0.0565*** [0.0200]	-0.0620*** [0.0215]	-0.0661*** [0.0197]	-0.0362* [0.0211]	-0.0536*** [0.0200]	-0.0648*** [0.0215]	-0.0595*** [0.0199]	-0.0617*** [0.0215]	-0.0690*** [0.0199]	-0.0633*** [0.0214]
French minority outside QC (All Others)	0.0535* [0.0296]	0.0165 [0.0301]	0.0586** [0.0284]	-0.011 [0.0270]	0.0543* [0.0299]	0.015 [0.0304]	0.0530* [0.0294]	0.0093 [0.0311]	0.0517* [0.0289]	0.0125 [0.0297]
Family Type (Two Parents)										
Mother only	0.0166 [0.0239]	0.015 [0.0284]	0.0157 [0.0239]	0.0236 [0.0285]	0.0165 [0.0239]	0.0155 [0.0285]	0.0209 [0.0243]	0.013 [0.0283]	0.0166 [0.0240]	0.017 [0.0282]
Father only	-0.0144 [0.0512]	-0.0408 [0.0599]	-0.0181 [0.0501]	-0.0275 [0.0557]	-0.0169 [0.0504]	-0.0226 [0.0600]	-0.0087 [0.0530]	-0.0427 [0.0599]	-0.0335 [0.0491]	-0.0144 [0.0601]
Other	-0.0317 [0.0536]	-0.1677*** [0.0617]	-0.0311 [0.0530]	-0.1631*** [0.0562]	-0.0298 [0.0540]	-0.1733*** [0.0613]	-0.0386 [0.0517]	-0.1651*** [0.0630]	-0.038 [0.0522]	-0.1519** [0.0636]
Visible minority (All others)	0.0083 [0.0271]	0.1119*** [0.0303]	0.0177 [0.0270]	0.0980*** [0.0294]	0.0099 [0.0272]	0.1099*** [0.0309]	0.0093 [0.0274]	0.1171*** [0.0305]	0.0105 [0.0272]	0.1159*** [0.0305]
Canadian by immigration (by birth)	-0.0384 [0.0367]	0.1215*** [0.0419]	-0.0215 [0.0368]	0.0951** [0.0395]	-0.0423 [0.0363]	0.1272*** [0.0416]	-0.0389 [0.0365]	0.1173*** [0.0415]	-0.0307 [0.0369]	0.1179*** [0.0415]
Visible Minority & Canadian by immigration (otf)	-0.0401 [0.0568]	-0.0176 [0.0660]	-0.0157 [0.0591]	-0.0242 [0.0604]	-0.0395 [0.0570]	-0.0197 [0.0660]	-0.0005 [0.0634]	-0.035 [0.0629]	-0.0072 [0.0613]	-0.0525 [0.0628]
Parental/guardian's Education (HS completed)										
Less than HS	-0.036 [0.0282]	-0.1036*** [0.0323]	-0.0368 [0.0294]	-0.1028*** [0.0337]	-0.0346 [0.0284]	-0.1087*** [0.0321]	-0.0383 [0.0289]	-0.1187*** [0.0321]	-0.0355 [0.0289]	-0.1161*** [0.0318]
Some PSE	0.0402 [0.0328]	0.0446 [0.0350]	0.0381 [0.0326]	0.0374 [0.0340]	0.0391 [0.0329]	0.0485 [0.0353]	0.0387 [0.0331]	0.0468 [0.0357]	0.0412 [0.0332]	0.0448 [0.0353]
Trade/College	-0.009 [0.0204]	0.0560** [0.0241]	-0.0094 [0.0202]	0.0494** [0.0233]	-0.0087 [0.0204]	0.0532** [0.0241]	-0.0131 [0.0203]	0.0613** [0.0241]	-0.0117 [0.0203]	0.0624*** [0.0240]
University-below BA degree	-0.0839** [0.0341]	0.2903*** [0.0407]	-0.0714** [0.0349]	0.2728*** [0.0392]	-0.0831** [0.0342]	0.2911*** [0.0402]	-0.0874*** [0.0339]	0.3028*** [0.0397]	-0.0808** [0.0342]	0.3012*** [0.0396]
University-BA	-0.0729*** [0.0229]	0.2806*** [0.0271]	-0.0750*** [0.0222]	0.2673*** [0.0266]	-0.0736*** [0.0229]	0.2856*** [0.0271]	-0.0849*** [0.0224]	0.2967*** [0.0270]	-0.0793*** [0.0225]	0.2951*** [0.0268]
University-Grad	-0.1424*** [0.0240]	0.3535*** [0.0321]	-0.1334*** [0.0254]	0.3208*** [0.0321]	-0.1437*** [0.0238]	0.3624*** [0.0318]	-0.1524*** [0.0229]	0.3738*** [0.0315]	-0.1445*** [0.0315]	0.3756*** [0.0318]
Other/unknown	-0.1023 [0.1350]	-0.2421*** [0.0915]	-0.1193 [0.1283]	-0.1561 [0.1336]	-0.0998 [0.1341]	-0.2445*** [0.0865]	0.1242 [0.1802]	0.032 [0.2022]	-0.1169 [0.1316]	-0.2089* [0.1085]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	-0.0928* [0.0476]	-0.0817 [0.0989]	-0.1005** [0.0473]	-0.0694 [0.0933]	-0.0881* [0.0495]	-0.0697 [0.0989]	-0.0924* [0.0482]	-0.0861 [0.0953]	-0.0931** [0.0475]	-0.0808 [0.0990]
\$5000 to \$25000	-0.0219 [0.0301]	-0.0962** [0.0374]	-0.0318 [0.0294]	-0.0946** [0.0376]	-0.0215 [0.0301]	-0.0965** [0.0378]	-0.0256 [0.0299]	-0.0980*** [0.0376]	-0.0288 [0.0294]	-0.1021*** [0.0374]
\$25000 to \$50000	-0.0126 [0.0194]	-0.0678*** [0.0228]	-0.0137 [0.0193]	-0.0719*** [0.0222]	-0.0098 [0.0195]	-0.0720*** [0.0229]	-0.0137 [0.0194]	-0.0779*** [0.0230]	-0.0086 [0.0195]	-0.0799*** [0.0230]
\$75000 to \$100000	-0.0007 [0.0202]	0.0262 [0.0225]	0.0008 [0.0200]	0.0274 [0.0217]	0.0007 [0.0202]	0.0233 [0.0225]	0.0031 [0.0202]	0.0232 [0.0227]	0.0014 [0.0202]	0.0227 [0.0225]
\$100000 and up	-0.0177 [0.0234]	0.1094*** [0.0258]	-0.0178 [0.0230]	0.1083*** [0.0253]	-0.0166 [0.0233]	0.1025*** [0.0258]	-0.0137 [0.0233]	0.1009*** [0.0259]	-0.0153 [0.0233]	0.1054*** [0.0257]
HS Engagements										
Academic identification										
Academic participation										
Academic engagement										
Social engagement										
Overall engagement										
Self-perception:										
Self-esteem	0.0007 [0.0070]	0.0639*** [0.0081]								
Self-efficacy			-0.0093 [0.0072]	0.1134*** [0.0076]						
Self-mastery					-0.0038 [0.0073]	0.0548*** [0.0083]				
Social Support:							0.0170** [0.0070]	0.0126 [0.0085]		
Parents' Behaviours:										
Monitoring behaviour									-0.0032 [0.0080]	0.0383*** [0.0096]
Nurturance behaviour										
Inconsistent discipline (Rejection-oriented behaviour)										
Reading Ability:										
Observations	8171	8171	8252	8252	8151	8151	8254	8254	8306	8306

cont . . .

Table A6 - Full Results from Table 5 - cont.

	Females									
	(11)		(12)		(13)		(14)		(15)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0823*** [0.0162]	0.0349* [0.0181]	-0.0826*** [0.0161]	0.0376** [0.0182]	-0.0778*** [0.0155]	0.026 [0.0164]	-0.0781*** [0.0153]	0.0263* [0.0160]	-0.0790*** [0.0154]	0.0301* [0.0161]
HS Province (ON)										
Newfoundland and Labrador	-0.1229*** [0.0217]	0.1358*** [0.0252]	-0.1252*** [0.0216]	0.1399*** [0.0253]	-0.1229*** [0.0210]	0.1367*** [0.0228]	-0.1191*** [0.0212]	0.1196*** [0.0227]	-0.1172*** [0.0211]	0.1295*** [0.0231]
Prince Edward Island	-0.1639*** [0.0190]	0.1892*** [0.0245]	-0.1636*** [0.0189]	0.1893*** [0.0243]	-0.1685*** [0.0179]	0.2075*** [0.0214]	-0.1782*** [0.0172]	0.2298*** [0.0207]	-0.1707*** [0.0173]	0.2260*** [0.0208]
Nova Scotia	-0.1585*** [0.0185]	0.1953*** [0.0227]	-0.1603*** [0.0185]	0.1988*** [0.0226]	-0.1617*** [0.0176]	0.2007*** [0.0201]	-0.1739*** [0.0171]	0.2244*** [0.0197]	-0.1662*** [0.0173]	0.2232*** [0.0197]
New Brunswick	-0.1574*** [0.0188]	0.1608*** [0.0226]	-0.1577*** [0.0187]	0.1631*** [0.0225]	-0.1594*** [0.0176]	0.1757*** [0.0201]	-0.1693*** [0.0169]	0.2007*** [0.0194]	-0.1646*** [0.0171]	0.1980*** [0.0194]
Manitoba	-0.1481*** [0.0195]	0.0789*** [0.0248]	-0.1478*** [0.0195]	0.0813*** [0.0247]	-0.1417*** [0.0190]	0.0622*** [0.0226]	-0.1553*** [0.0185]	0.0940*** [0.0222]	-0.1499*** [0.0186]	0.0930*** [0.0224]
Saskatchewan	-0.1406*** [0.0187]	0.0388 [0.0236]	-0.1404*** [0.0186]	0.0416* [0.0235]	-0.1347*** [0.0182]	0.0249 [0.0214]	-0.1518*** [0.0177]	0.0640*** [0.0197]	-0.1447*** [0.0181]	0.0609*** [0.0216]
Alberta	-0.0967*** [0.0193]	-0.0811*** [0.0215]	-0.0961*** [0.0193]	-0.0799*** [0.0214]	-0.0853*** [0.0191]	-0.1242*** [0.0193]	-0.0895*** [0.0190]	-0.1096*** [0.0190]	-0.0817*** [0.0193]	-0.1101*** [0.0195]
British Columbia	-0.0621*** [0.0199]	-0.0595*** [0.0215]	-0.0616*** [0.0199]	-0.0596*** [0.0214]	-0.0538*** [0.0194]	-0.0803*** [0.0194]	-0.0593*** [0.0193]	-0.0601*** [0.0192]	-0.0515*** [0.0196]	-0.0601*** [0.0197]
French minority outside QC (All Others)	0.0518* [0.0293]	0.0128 [0.0309]	0.0527* [0.0295]	0.006 [0.0306]	0.0134 [0.0255]	0.1006*** [0.0271]	0.0157 [0.0245]	0.0868*** [0.0247]	0.0278 [0.0251]	0.0694*** [0.0242]
Family Type (Two Parents)										
Mother only	0.018 [0.0240]	0.0127 [0.0281]	0.0179 [0.0239]	0.0138 [0.0282]	0.0246 [0.0236]	-0.0101 [0.0243]	0.0208 [0.0232]	0.0075 [0.0242]	0.019 [0.0237]	0.0121 [0.0253]
Father only	-0.0139 [0.0515]	-0.0396 [0.0598]	-0.0132 [0.0516]	-0.0379 [0.0603]	-0.0124 [0.0506]	-0.0522 [0.0495]	-0.0313 [0.0475]	0.0029 [0.0505]	-0.0492 [0.0459]	0.007 [0.0528]
Other	-0.038 [0.0523]	-0.1597*** [0.0632]	-0.0372 [0.0525]	-0.1678*** [0.0610]	-0.0402 [0.0508]	-0.1243** [0.0547]	-0.0401 [0.0502]	-0.0966* [0.0512]	-0.0381 [0.0497]	-0.1044** [0.0504]
Visible minority (All others)	0.0102 [0.0273]	0.1137*** [0.0307]	0.0102 [0.0272]	0.1159*** [0.0307]	0.0007 [0.0251]	0.1337*** [0.0279]	0.0144 [0.0256]	0.0995*** [0.0283]	0.0143 [0.0261]	0.0901*** [0.0283]
Canadian by immigration (by birth)	-0.0302 [0.0369]	0.1114*** [0.0413]	-0.0305 [0.0366]	0.1094*** [0.0408]	-0.0301 [0.0348]	0.1186*** [0.0359]	-0.0158 [0.0357]	0.0853** [0.0354]	-0.032 [0.0353]	0.1005*** [0.0373]
Visible Minority & Canadian by immigration (otf)	-0.006 [0.0616]	-0.0463 [0.0626]	-0.0061 [0.0615]	-0.0489 [0.0624]	-0.0232 [0.0557]	0.0208 [0.0555]	-0.0319 [0.0531]	0.0444 [0.0545]	-0.0451 [0.0525]	0.0393 [0.0570]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0359 [0.0289]	-0.1174*** [0.0318]	-0.0344 [0.0288]	-0.1194*** [0.0319]	-0.0334 [0.0292]	-0.0732** [0.0324]	-0.0323 [0.0287]	-0.0667** [0.0322]	-0.0365 [0.0285]	-0.0602* [0.0331]
Some PSE	0.0406 [0.0330]	0.0463 [0.0354]	0.0404 [0.0330]	0.0427 [0.0353]	0.0498 [0.0319]	0.0123 [0.0304]	0.0518 [0.0316]	0.0066 [0.0291]	0.0472 [0.0318]	0.0137 [0.0297]
Trade/College	-0.0105 [0.0203]	0.0626*** [0.0240]	-0.0103 [0.0203]	0.0599** [0.0240]	0.0016 [0.0198]	0.0226 [0.0212]	0.0041 [0.0195]	0.0166 [0.0207]	0.0017 [0.0197]	0.0145 [0.0210]
University-below BA degree	-0.0820** [0.0340]	0.3029*** [0.0398]	-0.0801** [0.0342]	0.2950*** [0.0396]	-0.0276 [0.0370]	0.1653*** [0.0371]	-0.0156 [0.0377]	0.1402*** [0.0369]	-0.0259 [0.0381]	0.1420*** [0.0367]
University-BA	-0.0808*** [0.0224]	0.2990*** [0.0268]	-0.0790*** [0.0226]	0.2897*** [0.0269]	-0.0380* [0.0226]	0.1705*** [0.0252]	-0.0287 [0.0225]	0.1458*** [0.0246]	-0.0291 [0.0229]	0.1422*** [0.0251]
University-Grad	-0.1432*** [0.0245]	0.3731*** [0.0319]	-0.1410*** [0.0248]	0.3617*** [0.0322]	-0.0942*** [0.0280]	0.2166*** [0.0304]	-0.0820*** [0.0287]	0.1788*** [0.0300]	-0.0954*** [0.0300]	0.1795*** [0.0302]
Other/unknown	-0.1168 [0.1313]	-0.2050* [0.1106]	-0.1277 [0.1309]	-0.2467*** [0.0874]	-0.1241 [0.1202]	-0.087 [0.1304]	-0.1349 [0.1131]	-0.0837 [0.1294]	0.1213 [0.1354]	0.0154 [0.1348]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	-0.0957** [0.0467]	-0.0867 [0.0953]	-0.0961** [0.0464]	-0.0675 [0.0956]	-0.1149*** [0.0410]	0.0082 [0.0923]	-0.1157*** [0.0405]	0.03 [0.0988]	-0.1106** [0.0437]	0.037 [0.1009]
\$5000 to \$25000	-0.0283 [0.0294]	-0.1022*** [0.0376]	-0.0284 [0.0294]	-0.1042*** [0.0372]	-0.0424 [0.0281]	-0.0355 [0.0344]	-0.0404 [0.0279]	-0.0454 [0.0332]	-0.0291 [0.0293]	-0.046 [0.0335]
\$25000 to \$50000	-0.0078 [0.0195]	-0.0820*** [0.0230]	-0.0078 [0.0195]	-0.0806*** [0.0229]	-0.0158 [0.0189]	-0.0465*** [0.0197]	-0.0145 [0.0186]	-0.0505*** [0.0194]	-0.02 [0.0188]	-0.0451** [0.0198]
\$75000 to \$100000	0.0032 [0.0202]	0.0207 [0.0226]	0.0023 [0.0202]	0.0222 [0.0225]	-0.0017 [0.0191]	0.0351* [0.0202]	-0.0007 [0.0189]	0.0323 [0.0198]	-0.0061 [0.0189]	0.0386* [0.0198]
\$100000 and up	-0.0139 [0.0233]	0.1027*** [0.0258]	-0.0149 [0.0233]	0.1045*** [0.0257]	-0.0096 [0.0224]	0.0924*** [0.0237]	-0.0074 [0.0221]	0.0880*** [0.0232]	-0.0129 [0.0223]	0.0933*** [0.0233]
HS Engagements										
Academic identification							0.0045 [0.0082]	0.0155* [0.0082]	0.0088 [0.0091]	-0.0028 [0.0094]
Academic participation							-0.0235*** [0.0090]	0.0957*** [0.0089]	-0.0218** [0.0092]	0.0877*** [0.0091]
Academic engagement										
Social engagement							0.0089 [0.0069]	0.0096 [0.0080]	0.0056 [0.0085]	0.0124 [0.0094]
Overall engagement										
Self-perception:										
Self-esteem									-0.0014 [0.0098]	0.0157 [0.0104]
Self-efficacy									-0.0101 [0.0084]	0.0466*** [0.0087]
Self-mastery									-0.0102 [0.0095]	0.0025 [0.0102]
Social Support:									0.0189** [0.0082]	-0.0296*** [0.0091]
Parents' Behaviours:										
Monitoring behaviour									-0.0038 [0.0079]	0.0235*** [0.0088]
Nurturance behaviour	-0.0043 [0.0073]	0.0047 [0.0083]							-0.0054 [0.0076]	-0.0096 [0.0082]
Inconsistent discipline (Rejection-oriented behaviour)			-0.0044 [0.0068]	-0.0355*** [0.0076]					-0.0047 [0.0069]	-0.0161** [0.0072]
Reading Ability:										
					-0.0003*** [0.0001]	0.0023*** [0.0001]	-0.0003*** [0.0001]	0.0021*** [0.0001]	-0.0003*** [0.0001]	0.0019*** [0.0001]
Observations	8306	8306	8306	8306	8304	8304	8302	8302	8049	8049

cont . . .

Table A6 - Full Results from Table 5 - cont.

	Males									
	(1)		(2)		(3)		(4)		(5)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0442*** [0.0162]	0.0720*** [0.0172]	-0.0448*** [0.0162]	0.0696*** [0.0171]	-0.0443*** [0.0161]	0.0687*** [0.0168]	-0.0415** [0.0162]	0.0711*** [0.0178]	-0.0425*** [0.0162]	0.0657*** [0.0173]
HS Province (ON)										
Newfoundland and Labrador	-0.1097*** [0.0235]	0.1023*** [0.0262]	-0.1113*** [0.0236]	0.0799*** [0.0251]	-0.1084*** [0.0236]	0.0849*** [0.0254]	-0.1097*** [0.0234]	0.1058*** [0.0263]	-0.1090*** [0.0235]	0.0953*** [0.0257]
Prince Edward Island	-0.1481*** [0.0218]	0.2021*** [0.0266]	-0.1526*** [0.0215]	0.2343*** [0.0260]	-0.1494*** [0.0217]	0.2219*** [0.0259]	-0.1486*** [0.0218]	0.2011*** [0.0273]	-0.1498*** [0.0216]	0.2109*** [0.0265]
Nova Scotia	-0.1336*** [0.0209]	0.1859*** [0.0246]	-0.1389*** [0.0206]	0.2096*** [0.0243]	-0.1343*** [0.0208]	0.1959*** [0.0242]	-0.1352*** [0.0209]	0.1923*** [0.0250]	-0.1352*** [0.0208]	0.1930*** [0.0245]
New Brunswick	-0.1651*** [0.0194]	0.1718*** [0.0252]	-0.1682*** [0.0193]	0.1849*** [0.0246]	-0.1658*** [0.0194]	0.1859*** [0.0247]	-0.1651*** [0.0195]	0.1587*** [0.0253]	-0.1659*** [0.0194]	0.1729*** [0.0248]
Manitoba	-0.2090*** [0.0163]	0.0847*** [0.0265]	-0.2093*** [0.0163]	0.1161*** [0.0258]	-0.2074*** [0.0164]	0.1066*** [0.0259]	-0.2099*** [0.0162]	0.0775*** [0.0269]	-0.2092*** [0.0163]	0.0895*** [0.0266]
Saskatchewan	-0.1722*** [0.0176]	0.0746*** [0.0229]	-0.1754*** [0.0176]	0.1001*** [0.0224]	-0.1731*** [0.0176]	0.0933*** [0.0223]	-0.1717*** [0.0176]	0.0650*** [0.0233]	-0.1733*** [0.0176]	0.0737*** [0.0228]
Alberta	-0.1413*** [0.0178]	-0.0229 [0.0192]	-0.1404*** [0.0193]	-0.0251 [0.0186]	-0.1393*** [0.0178]	-0.0222 [0.0185]	-0.1423*** [0.0178]	-0.0274 [0.0196]	-0.1415*** [0.0178]	-0.025 [0.0192]
British Columbia	-0.0869*** [0.0203]	0.0004 [0.0204]	-0.0877*** [0.0202]	-0.0058 [0.0197]	-0.0863*** [0.0203]	0.0042 [0.0200]	-0.0881*** [0.0203]	-0.0046 [0.0205]	-0.0880*** [0.0203]	0.0024 [0.0204]
French minority outside QC (All Others)	0.0563* [0.0295]	-0.0166 [0.0328]	0.0568* [0.0295]	-0.0095 [0.0341]	0.0566* [0.0295]	-0.0147 [0.0340]	0.0586** [0.0296]	-0.0156 [0.0329]	0.0565* [0.0295]	-0.0202 [0.0312]
Family Type (Two Parents)										
Mother only	-0.0306 [0.0245]	0.0041 [0.0300]	-0.0292 [0.0246]	0.0073 [0.0295]	-0.0322 [0.0243]	0.0136 [0.0291]	-0.0303 [0.0244]	-0.0012 [0.0304]	-0.0311 [0.0245]	0.012 [0.0298]
Father only	0.0241 [0.0567]	-0.0847 [0.0564]	0.0224 [0.0557]	-0.0437 [0.0518]	0.0243 [0.0567]	-0.0673 [0.0554]	0.0251 [0.0558]	-0.0776 [0.0540]	0.0252 [0.0557]	-0.0826 [0.0531]
Other	-0.0304 [0.0655]	-0.0591 [0.1034]	-0.0366 [0.0615]	-0.0234 [0.0996]	-0.0346 [0.0640]	-0.0498 [0.1006]	-0.0274 [0.0654]	-0.0319 [0.1091]	-0.027 [0.0667]	-0.0326 [0.1117]
Visible minority (All others)	-0.0028 [0.0268]	0.1592*** [0.0294]	0.0014 [0.0272]	0.1280*** [0.0281]	0.0016 [0.0270]	0.1326*** [0.0284]	-0.0045 [0.0269]	0.1726*** [0.0302]	-0.0003 [0.0271]	0.1545*** [0.0298]
Canadian by immigration (by birth)	-0.0037 [0.0399]	0.0393 [0.0418]	-0.002 [0.0394]	0.0197 [0.0419]	-0.0033 [0.0394]	0.0214 [0.0405]	-0.0046 [0.0398]	0.0568 [0.0444]	-0.0041 [0.0398]	0.0514 [0.0431]
Visible Minority & Canadian by immigration (otf)	-0.0156 [0.0549]	-0.0721 [0.0518]	-0.0173 [0.0536]	-0.0665 [0.0517]	-0.016 [0.0542]	-0.0705 [0.0510]	-0.0186 [0.0543]	-0.0699 [0.0528]	-0.0175 [0.0543]	-0.073 [0.0518]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0683** [0.0292]	-0.0599** [0.0273]	-0.0662** [0.0293]	-0.0535* [0.0278]	-0.0668** [0.0292]	-0.0523* [0.0274]	-0.0688** [0.0292]	-0.0657** [0.0276]	-0.0675** [0.0292]	-0.0591** [0.0279]
Some PSE	0.0125 [0.0313]	0.0551* [0.0321]	0.0098 [0.0311]	0.0524* [0.0308]	0.0111 [0.0312]	0.0519* [0.0308]	0.0116 [0.0313]	0.0598* [0.0334]	0.0135 [0.0313]	0.0578* [0.0326]
Trade/College	0.0212 [0.0209]	0.0767*** [0.0214]	0.0188 [0.0209]	0.0677*** [0.0205]	0.0196 [0.0209]	0.0713*** [0.0207]	0.0206 [0.0209]	0.0777*** [0.0217]	0.0218 [0.0209]	0.0769*** [0.0212]
University-below BA degree	-0.0019 [0.0395]	0.1637*** [0.0453]	-0.0011 [0.0395]	0.1417*** [0.0447]	-0.0007 [0.0395]	0.1493*** [0.0441]	-0.0001 [0.0395]	0.1599*** [0.0461]	0.0003 [0.0396]	0.1513*** [0.0447]
University-BA	-0.0487** [0.0217]	0.3063*** [0.0293]	-0.0484** [0.0219]	0.2645*** [0.0282]	-0.0483** [0.0218]	0.2779*** [0.0283]	-0.0506** [0.0215]	0.3135*** [0.0297]	-0.0491** [0.0216]	0.3001*** [0.0289]
University-Grad	-0.0921*** [0.0264]	0.4450*** [0.0356]	-0.0907*** [0.0268]	0.4196*** [0.0342]	-0.0911*** [0.0266]	0.4249*** [0.0348]	-0.0922*** [0.0264]	0.4509*** [0.0354]	-0.0911*** [0.0264]	0.4405*** [0.0352]
Other/unknown	-0.2232*** [0.0135]	-0.054 [0.1313]	-0.2244*** [0.0135]	-0.0465 [0.1356]	-0.2236*** [0.0138]	-0.0516 [0.1279]	-0.2234*** [0.0130]	-0.0413 [0.1483]	-0.2225*** [0.0138]	-0.013 [0.1637]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	0.0154 [0.0703]	-0.0001 [0.0655]	0.0222 [0.0716]	-0.002 [0.0588]	0.0191 [0.0705]	-0.0049 [0.0588]	0.0173 [0.0714]	-0.0001 [0.0680]	0.0206 [0.0722]	-0.0057 [0.0634]
\$5000 to \$25000	0.0311 [0.0353]	-0.0511 [0.0375]	0.0314 [0.0351]	-0.0431 [0.0359]	0.0325 [0.0356]	-0.0489 [0.0365]	0.0296 [0.0348]	-0.045 [0.0377]	0.0308 [0.0353]	-0.0418 [0.0375]
\$25000 to \$50000	0.022 [0.0199]	-0.0093 [0.0208]	0.0213 [0.0198]	-0.0044 [0.0204]	0.0209 [0.0198]	-0.0044 [0.0202]	0.022 [0.0199]	-0.0119 [0.0213]	0.0204 [0.0198]	-0.0061 [0.0207]
\$75000 to \$100000	0.0154 [0.0197]	0.0456** [0.0223]	0.0166 [0.0197]	0.0273 [0.0216]	0.0153 [0.0196]	0.0377* [0.0214]	0.0151 [0.0197]	0.0416* [0.0230]	0.0142 [0.0197]	0.0422* [0.0223]
\$100000 and up	0.0198 [0.0235]	0.0583** [0.0256]	0.0187 [0.0235]	0.0459* [0.0250]	0.0197 [0.0235]	0.0508** [0.0247]	0.02 [0.0235]	0.0570** [0.0265]	0.0191 [0.0234]	0.0507** [0.0257]
HS Engagements										
Academic identification	0.0018 [0.0072]	0.0670*** [0.0073]								
Academic participation			0.0074 [0.0073]	0.1055*** [0.0076]						
Academic engagement					0.0054 [0.0072]	0.1048*** [0.0073]				
Social engagement							-0.0064 [0.0067]	0.0249*** [0.0077]		
Overall engagement									-0.0009 [0.0070]	0.0729*** [0.0075]
Self-perception:										
Self-esteem										
Self-efficacy										
Self-mastery										
Social Support:										
Parents' Behaviours:										
Monitoring behaviour										
Nurturance behaviour										
Inconsistent discipline (Rejection-oriented behaviour)										
Reading Ability:										
Observations	7850	7850	7850	7850	7850	7850	7846	7846	7846	7846

cont . . .

Table A6 - Full Results from Table 5 - cont.

	Males									
	(6)		(7)		(8)		(9)		(10)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0426*** [0.0164]	0.0688*** [0.0176]	-0.0417*** [0.0162]	0.0688*** [0.0167]	-0.0427*** [0.0165]	0.0703*** [0.0180]	-0.0432*** [0.0163]	0.0674*** [0.0177]	-0.0435*** [0.0163]	0.0776*** [0.0177]
HS Province (ON)										
Newfoundland and Labrador	-0.1078*** [0.0238]	0.1081*** [0.0264]	-0.1077*** [0.0234]	0.1122*** [0.0259]	-0.1115*** [0.0239]	0.1063*** [0.0268]	-0.1076*** [0.0237]	0.1063*** [0.0262]	-0.1089*** [0.0235]	0.1148*** [0.0263]
Prince Edward Island	-0.1452*** [0.0221]	0.1988*** [0.0268]	-0.1431*** [0.0219]	0.2050*** [0.0264]	-0.1447*** [0.0223]	0.1972*** [0.0270]	-0.1507*** [0.0218]	0.2042*** [0.0270]	-0.1502*** [0.0218]	0.1993*** [0.0272]
Nova Scotia	-0.1386*** [0.0209]	0.1964*** [0.0251]	-0.1337*** [0.0208]	0.2003*** [0.0241]	-0.1421*** [0.0209]	0.2013*** [0.0254]	-0.1384*** [0.0208]	0.1949*** [0.0249]	-0.1369*** [0.0209]	0.1936*** [0.0251]
New Brunswick	-0.1578*** [0.0202]	0.1697*** [0.0254]	-0.1639*** [0.0193]	0.1723*** [0.0248]	-0.1611*** [0.0202]	0.1565*** [0.0257]	-0.1662*** [0.0196]	0.1633*** [0.0254]	-0.1643*** [0.0195]	0.1589*** [0.0253]
Manitoba	-0.2094*** [0.0164]	0.0796*** [0.0265]	-0.2071*** [0.0163]	0.0892*** [0.0260]	-0.2099*** [0.0165]	0.0763*** [0.0268]	-0.2096*** [0.0164]	0.0787*** [0.0267]	-0.2108*** [0.0162]	0.0801*** [0.0266]
Saskatchewan	-0.1702*** [0.0178]	0.0654*** [0.0231]	-0.1687*** [0.0177]	0.0703*** [0.0220]	-0.1703*** [0.0179]	0.0659*** [0.0234]	-0.1754*** [0.0176]	0.0738*** [0.0234]	-0.1721*** [0.0176]	0.0711*** [0.0234]
Alberta	-0.1404*** [0.0181]	-0.0309 [0.0194]	-0.1390*** [0.0178]	-0.0267 [0.0188]	-0.1412*** [0.0198]	-0.0292 [0.0198]	-0.1424*** [0.0179]	-0.0268 [0.0195]	-0.1444*** [0.0177]	-0.0272 [0.0195]
British Columbia	-0.0823*** [0.0205]	-0.0088 [0.0204]	-0.0814*** [0.0205]	0.0012 [0.0201]	-0.0836*** [0.0206]	-0.0112 [0.0206]	-0.0868*** [0.0203]	-0.0092 [0.0203]	-0.0912*** [0.0202]	-0.0081 [0.0203]
French minority outside QC (All Others)	0.0574* [0.0308]	-0.0065 [0.0340]	0.0546* [0.0295]	-0.0032 [0.0326]	0.0604* [0.0308]	-0.0039 [0.0337]	0.0560* [0.0298]	-0.0167 [0.0327]	0.0556* [0.0295]	-0.0142 [0.0319]
Family Type (Two Parents)										
Mother only	-0.0333 [0.0246]	0.0041 [0.0305]	-0.0285 [0.0244]	0.0031 [0.0284]	-0.0335 [0.0246]	0.0022 [0.0313]	-0.0316 [0.0244]	0.006 [0.0301]	-0.0301 [0.0245]	-0.0049 [0.0300]
Father only	0.0086 [0.0564]	-0.0663 [0.0612]	0.0293 [0.0574]	-0.0849 [0.0529]	0.0083 [0.0563]	-0.0628 [0.0599]	0.0244 [0.0564]	-0.0745 [0.0538]	0.0205 [0.0552]	-0.0656 [0.0565]
Other	-0.0291 [0.0676]	-0.0484 [0.1142]	-0.0332 [0.0627]	-0.0199 [0.0988]	-0.0319 [0.0680]	-0.048 [0.1160]	-0.0265 [0.0663]	-0.0251 [0.1118]	-0.0332 [0.0630]	-0.0405 [0.1034]
Visible minority (All others)	0.0024 [0.0277]	0.1749*** [0.0305]	-0.0006 [0.0272]	0.1533*** [0.0302]	0.001 [0.0275]	0.1716*** [0.0306]	-0.0014 [0.0267]	0.1780*** [0.0301]	-0.0013 [0.0269]	0.1833*** [0.0300]
Canadian by immigration (by birth)	-0.0058 [0.0411]	0.057 [0.0441]	0.004 [0.0405]	0.0302 [0.0433]	-0.0047 [0.0411]	0.0642 [0.0455]	-0.0027 [0.0403]	0.0512 [0.0447]	-0.0011 [0.0399]	0.0407 [0.0433]
Visible Minority & Canadian by immigration (otf)	-0.0228 [0.0545]	-0.077 [0.0519]	-0.0221 [0.0533]	-0.0621 [0.0520]	-0.0234 [0.0544]	-0.0769 [0.0529]	-0.0226 [0.0538]	-0.0713 [0.0528]	-0.0169 [0.0550]	-0.0554 [0.0539]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0558* [0.0306]	-0.0596** [0.0292]	-0.0645** [0.0298]	-0.0555** [0.0274]	-0.0535* [0.0310]	-0.0614** [0.0295]	-0.0703** [0.0293]	-0.0651** [0.0278]	-0.0659** [0.0293]	-0.0643** [0.0278]
Some PSE	0.016 [0.0317]	0.0544 [0.0335]	0.0113 [0.0315]	0.0451 [0.0314]	0.0137 [0.0317]	0.0525 [0.0337]	0.014 [0.0317]	0.0578* [0.0333]	0.0119 [0.0313]	0.0595* [0.0334]
Trade/College	0.0248 [0.0211]	0.0751*** [0.0217]	0.0196 [0.0210]	0.0774*** [0.0213]	0.0238 [0.0212]	0.0739*** [0.0220]	0.0181 [0.0209]	0.0776*** [0.0217]	0.0215 [0.0209]	0.0733*** [0.0215]
University-below BA degree	0.0024 [0.0400]	0.1499*** [0.0449]	0.003 [0.0396]	0.1458*** [0.0433]	0.0004 [0.0399]	0.1520*** [0.0447]	-0.0044 [0.0395]	0.1570*** [0.0453]	-0.0014 [0.0397]	0.1548*** [0.0458]
University-BA	-0.0466** [0.0220]	0.3008*** [0.0292]	-0.0460** [0.0220]	0.2794*** [0.0286]	-0.0494** [0.0220]	0.3062*** [0.0297]	-0.0510** [0.0217]	0.3089*** [0.0296]	-0.0491** [0.0296]	0.3091*** [0.0296]
University-Grad	-0.0893*** [0.0266]	0.4308*** [0.0356]	-0.0804*** [0.0273]	0.3960*** [0.0352]	-0.0910*** [0.0266]	0.4345*** [0.0356]	-0.0950*** [0.0264]	0.4502*** [0.0355]	-0.0923*** [0.0262]	0.4509*** [0.0349]
Other/unknown	-0.2189*** [0.0150]	-0.0231 [0.1623]	-0.2227*** [0.0136]	-0.0247 [0.1470]	-0.2196*** [0.0151]	-0.0241 [0.1629]	-0.2251*** [0.0129]	-0.0244 [0.1641]	-0.2238*** [0.0129]	-0.0632 [0.1297]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	-0.0284 [0.0620]	0.0131 [0.0746]	0.019 [0.0720]	0.0091 [0.0654]	-0.0264 [0.0618]	-0.0044 [0.0728]	0.0159 [0.0721]	-0.0013 [0.0680]	0.0213 [0.0705]	0.0124 [0.0688]
\$5000 to \$25000	0.0315 [0.0356]	-0.0395 [0.0382]	0.0353 [0.0355]	-0.041 [0.0379]	0.0313 [0.0355]	-0.0403 [0.0384]	0.0305 [0.0349]	-0.049 [0.0374]	0.0333 [0.0347]	-0.0524 [0.0368]
\$25000 to \$50000	0.0186 [0.0201]	-0.0069 [0.0212]	0.0213 [0.0198]	-0.0021 [0.0202]	0.0207 [0.0203]	-0.0048 [0.0216]	0.0226 [0.0200]	-0.0133 [0.0210]	0.0234 [0.0198]	-0.0153 [0.0213]
\$75000 to \$100000	0.0093 [0.0199]	0.0485** [0.0227]	0.0159 [0.0197]	0.0382* [0.0219]	0.0092 [0.0199]	0.0513** [0.0232]	0.0143 [0.0197]	0.0439* [0.0229]	0.0157 [0.0197]	0.0393* [0.0229]
\$100000 and up	0.0169 [0.0237]	0.0527** [0.0259]	0.0255 [0.0236]	0.0431* [0.0252]	0.0172 [0.0237]	0.0547** [0.0262]	0.0216 [0.0236]	0.0560** [0.0261]	0.019 [0.0234]	0.0601** [0.0261]
HS Engagements										
Academic identification										
Academic participation										
Academic engagement										
Social engagement										
Overall engagement										
Self-perception:										
Self-esteem	0.0071 [0.0070]	0.0647*** [0.0077]								
Self-efficacy			-0.0069 [0.0068]	0.1081*** [0.0069]						
Self-mastery					0.0085 [0.0071]	0.0513*** [0.0074]				
Social Support:							-0.0029 [0.0071]	0.0459*** [0.0078]		
Parents' Behaviours:										
Monitoring behaviour									0.0149* [0.0077]	0.0302*** [0.0084]
Nurturance behaviour										
Inconsistent discipline (Rejection-oriented behaviour)										
Reading Ability:										
Observations	7597	7597	7749	7749	7569	7569	7774	7774	7846	7846

cont . . .

Table A6 - Full Results from Table 5 - cont.

	Males									
	(11)		(12)		(13)		(14)		(15)	
	College	University	College	University	College	University	College	University	College	University
HS location - Urban (Rural)	-0.0446*** [0.0163]	0.0758*** [0.0177]	-0.0446*** [0.0162]	0.0753*** [0.0177]	-0.0432*** [0.0159]	0.0559*** [0.0160]	-0.0415*** [0.0158]	0.0545*** [0.0156]	-0.0410** [0.0162]	0.0597*** [0.0159]
HS Province (ON)										
Newfoundland and Labrador	-0.1121*** [0.0234]	0.1067*** [0.0264]	-0.1131*** [0.0233]	0.1074*** [0.0264]	-0.1114*** [0.0231]	0.1228*** [0.0246]	-0.1140*** [0.0232]	0.1071*** [0.0236]	-0.1137*** [0.0239]	0.1128*** [0.0248]
Prince Edward Island	-0.1506*** [0.0217]	0.2046*** [0.0274]	-0.1490*** [0.0218]	0.1935*** [0.0272]	-0.1569*** [0.0208]	0.2292*** [0.0245]	-0.1583*** [0.0206]	0.2502*** [0.0238]	-0.1571*** [0.0211]	0.2459*** [0.0246]
Nova Scotia	-0.1370*** [0.0208]	0.1946*** [0.0251]	-0.1372*** [0.0208]	0.1949*** [0.0249]	-0.1423*** [0.0201]	0.2144*** [0.0223]	-0.1433*** [0.0199]	0.2224*** [0.0219]	-0.1553*** [0.0198]	0.2332*** [0.0227]
New Brunswick	-0.1654*** [0.0195]	0.1565*** [0.0254]	-0.1659*** [0.0195]	0.1564*** [0.0253]	-0.1671*** [0.0190]	0.1773*** [0.0229]	-0.1687*** [0.0189]	0.1993*** [0.0226]	-0.1666*** [0.0197]	0.2028*** [0.0236]
Manitoba	-0.2115*** [0.0162]	0.0806*** [0.0269]	-0.2118*** [0.0162]	0.0798*** [0.0267]	-0.2117*** [0.0159]	0.0753*** [0.0236]	-0.2073*** [0.0162]	0.1040*** [0.0232]	-0.2078*** [0.0165]	0.1133*** [0.0238]
Saskatchewan	-0.1742*** [0.0177]	0.0755*** [0.0235]	-0.1739*** [0.0176]	0.0704*** [0.0233]	-0.1758*** [0.0173]	0.0659*** [0.0208]	-0.1762*** [0.0173]	0.0936*** [0.0201]	-0.1762*** [0.0177]	0.0974*** [0.0208]
Alberta	-0.1440*** [0.0178]	-0.0241 [0.0196]	-0.1430*** [0.0178]	-0.0273 [0.0195]	-0.1382*** [0.0175]	-0.0660*** [0.0170]	-0.1346*** [0.0176]	-0.0581*** [0.0165]	-0.1370*** [0.0182]	-0.0548*** [0.0172]
British Columbia	-0.0897*** [0.0202]	-0.0041 [0.0204]	-0.0903*** [0.0202]	-0.0088 [0.0203]	-0.0854*** [0.0199]	-0.0144 [0.0187]	-0.0884*** [0.0198]	-0.0044 [0.0184]	-0.0855*** [0.0204]	-0.0059 [0.0192]
French minority outside QC (All Others)	0.0568* [0.0295]	-0.0127 [0.0327]	0.0553* [0.0296]	-0.0233 [0.0325]	0.0327 [0.0281]	0.0944*** [0.0329]	0.0327 [0.0283]	0.0856** [0.0296]	0.0287 [0.0290]	0.0828** [0.0368]
Family Type (Two Parents)										
Mother only	-0.0289 [0.0246]	-0.0055 [0.0302]	-0.0278 [0.0246]	-0.0077 [0.0304]	-0.0285 [0.0242]	-0.0184 [0.0244]	-0.032 [0.0238]	-0.0015 [0.0239]	-0.0339 [0.0238]	-0.0025 [0.0246]
Father only	0.0212 [0.0550]	-0.0662 [0.0547]	0.0211 [0.0553]	-0.079 [0.0525]	0.013 [0.0521]	-0.0790* [0.0468]	0.0146 [0.0526]	-0.0534 [0.0471]	0.001 [0.0512]	-0.0446 [0.0495]
Other	-0.0297 [0.0636]	-0.0385 [0.1040]	-0.0321 [0.0627]	-0.0404 [0.1005]	-0.0402 [0.0567]	0.0096 [0.0897]	-0.0457 [0.0564]	0.0068 [0.0861]	-0.0589 [0.0557]	0.0057 [0.0892]
Visible minority (All others)	-0.0058 [0.0268]	0.1801*** [0.0304]	-0.0052 [0.0266]	0.1746*** [0.0296]	-0.0044 [0.0262]	0.1620*** [0.0259]	0.0013 [0.0262]	0.1301*** [0.0247]	0.0116 [0.0275]	0.1292*** [0.0264]
Canadian by immigration (by birth)	-0.0027 [0.0399]	0.0572 [0.0444]	-0.0015 [0.0402]	0.0491 [0.0431]	-0.0104 [0.0383]	0.0925** [0.0437]	-0.0156 [0.0373]	0.0655 [0.0407]	-0.0145 [0.0390]	0.0466 [0.0421]
Visible Minority & Canadian by immigration (otf)	-0.0182 [0.0544]	-0.0749 [0.0524]	-0.0197 [0.0542]	-0.071 [0.0520]	-0.0121 [0.0542]	-0.0712 [0.0478]	-0.0103 [0.0535]	-0.072 [0.0467]	-0.0141 [0.0538]	-0.0589 [0.0497]
Parental/guardian's Education (HS completed)										
Less than HS	-0.0686** [0.0292]	-0.0652** [0.0278]	-0.0677** [0.0292]	-0.0654** [0.0276]	-0.0620** [0.0296]	-0.0359 [0.0282]	-0.0597** [0.0297]	-0.0319 [0.0273]	-0.045 [0.0312]	-0.0317 [0.0281]
Some PSE	0.0099 [0.0312]	0.0598* [0.0333]	0.0104 [0.0313]	0.0585* [0.0329]	0.0136 [0.0311]	0.0237 [0.0287]	0.0125 [0.0310]	0.0211 [0.0272]	0.021 [0.0315]	0.0209 [0.0286]
Trade/College	0.0214 [0.0209]	0.0761*** [0.0216]	0.0213 [0.0209]	0.0790*** [0.0216]	0.0215 [0.0206]	0.0450** [0.0192]	0.0201 [0.0205]	0.0419** [0.0184]	0.021 [0.0209]	0.0465** [0.0191]
University-below BA degree	-0.0021 [0.0394]	0.1662*** [0.0463]	-0.0022 [0.0395]	0.1615*** [0.0459]	0.0054 [0.0398]	0.0916** [0.0386]	0.0049 [0.0393]	0.0895** [0.0372]	0.005 [0.0398]	0.0914** [0.0377]
University-BA	-0.0490** [0.0216]	0.3141*** [0.0297]	-0.0492** [0.0217]	0.3083*** [0.0295]	-0.0373* [0.0217]	0.2214*** [0.0258]	-0.0405* [0.0214]	0.2008*** [0.0246]	-0.0377* [0.0251]	0.1941*** [0.0251]
University-Grad	-0.0931*** [0.0262]	0.4554*** [0.0348]	-0.0918*** [0.0266]	0.4422*** [0.0349]	-0.0595** [0.0287]	0.2899*** [0.0321]	-0.0563* [0.0290]	0.2799*** [0.0314]	-0.0546* [0.0293]	0.2700*** [0.0324]
Other/unknown	-0.2233*** [0.0132]	-0.0551 [0.1368]	-0.2225*** [0.0141]	-0.0283 [0.1575]	-0.2227*** [0.0140]	0.0272 [0.1790]	-0.2238*** [0.0133]	0.029 [0.1636]	-0.2199*** [0.0147]	0.0475 [0.1687]
Parental Income Level (\$50000 to \$75000)										
Extremely low (\$0-\$5000)	0.0159 [0.0710]	0.0014 [0.0693]	0.019 [0.0708]	-0.0048 [0.0663]	0.0095 [0.0687]	0.0117 [0.0624]	0.0166 [0.0686]	0.0005 [0.0539]	-0.0175 [0.0619]	0.0182 [0.0572]
\$5000 to \$25000	0.0289 [0.0344]	-0.046 [0.0372]	0.0282 [0.0344]	-0.0483 [0.0370]	0.0234 [0.0335]	-0.0036 [0.0351]	0.0246 [0.0343]	-0.0093 [0.0337]	0.0313 [0.0353]	-0.0116 [0.0346]
\$25000 to \$50000	0.0231 [0.0199]	-0.0156 [0.0214]	0.0226 [0.0199]	-0.0135 [0.0212]	0.0196 [0.0196]	0.0066 [0.0193]	0.0173 [0.0195]	0.0126 [0.0186]	0.0178 [0.0199]	0.0197 [0.0192]
\$75000 to \$100000	0.0165 [0.0198]	0.0387* [0.0230]	0.0161 [0.0197]	0.0438* [0.0228]	0.0173 [0.0194]	0.0356* [0.0203]	0.013 [0.0192]	0.0337* [0.0193]	0.0079 [0.0193]	0.0369* [0.0197]
\$100000 and up	0.0193 [0.0235]	0.0581** [0.0264]	0.0182 [0.0234]	0.0625** [0.0261]	0.0214 [0.0229]	0.0446* [0.0233]	0.0208 [0.0228]	0.0408* [0.0225]	0.0245 [0.0234]	0.0403* [0.0231]
HS Engagements										
Academic identification							-0.0006 [0.0081]	0.0252*** [0.0074]	-0.0014 [0.0087]	0.0113 [0.0081]
Academic participation							0.0064 [0.0079]	0.0681*** [0.0078]	0.0071 [0.0082]	0.0677*** [0.0082]
Academic engagement										
Social engagement							-0.0098 [0.0070]	0.006 [0.0070]	-0.0160** [0.0082]	0.0054 [0.0082]
Overall engagement										
Self-perception:										
Self-esteem									0.0099 [0.0107]	0.0081 [0.0105]
Self-efficacy									-0.0127 [0.0081]	0.0486*** [0.0077]
Self-mastery									0.011 [0.0097]	0.001 [0.0092]
Social Support:										
Parents' Behaviours:										
Monitoring behaviour									0.0130* [0.0079]	0.0091 [0.0081]
Nurturance behaviour	-0.001 [0.0071]	0.0223*** [0.0079]							-0.0074 [0.0076]	0.0015 [0.0076]
Inconsistent discipline (Rejection-oriented behaviour)			-0.0067 [0.0071]	-0.0357*** [0.0075]					-0.0075 [0.0075]	-0.0128* [0.0074]
Reading Ability:										
					-0.0002** [0.0001]	0.0018*** [0.0001]	-0.0002*** [0.0001]	0.0017*** [0.0001]	-0.0002*** [0.0001]	0.0015*** [0.0001]
Observations	7850	7850	7850	7850	7844	7844	7838	7838	7426	7426

Note: Average marginal effects are shown. Standard errors are in brackets. *** p<0.01, ** p<0.05, * p<0.1.