

# **Access to Post-Secondary Education in Canada Among First and Second Generation Canadian Immigrants: Raw Differences and Some of the Underlying Factors**

**Ross Finnie**

Graduate School of Public and International Affairs  
University of Ottawa  
Ottawa, Ontario K1N 6N5  
613-562-5800 ext. 4552  
[rfinnie@uottawa.ca](mailto:rfinnie@uottawa.ca)

**Richard E. Mueller**

Department of Economics  
University of Lethbridge  
Lethbridge, Alberta T1K 3M4  
403-329-2510  
[richard.mueller@uleth.ca](mailto:richard.mueller@uleth.ca)

June 2008

## **ABSTRACT**

This research exploits the extremely rich and relatively under-utilised Youth in Transition Survey, Reading Cohort (“YITS-A”) to investigate access to post-secondary education (PSE) amongst the children of immigrants, including both i) those who themselves came to this country as immigrants but arrived early enough to face their PSE opportunities in Canada, ii) and those who were born in Canada to parents who were immigrants. Our results show that both these first- and second-generation immigrants are, overall, considerably more likely to attend PSE than non-immigrant youth (i.e., “third generation” and higher Canadians), that these differences are driven principally by higher university participation rates rather than college attendance, and that the patterns vary a great deal by source country and the specific combination of the mother’s and father’s immigration status and origin (i.e., when they are not both immigrants or from the same country). We also find that these patterns are partly explained by certain demographic characteristics (e.g., urban residence, living in a two-parent family), by immigrants’ parents’ education levels (the children of high education parents are generally more likely to go to PSE and immigrants tend to have relatively highly educated parents), and other observable factors, but that some important differences remain even after controlling for these factors. We then show that these remaining differences are to some degree related to high school grades and a range of “scale” variables that reflect young people’s high school experiences, including their academic and social engagement, self esteem, and so on, but again some differences remain after even this extensive set of regressors is added. We discuss these patterns, and the possible explanations of the remaining differences.

The authors are grateful for the financial support for this project provided by the Canada Millennium Scholarship Foundation through the MESA project, and for the excellent research assistance provided by Yan Zhang and Stephen Child of MESA.

# I. Introduction

There exists a long line of research into the economic assimilation of immigrants in Canada. One particular recent focus of this work is the perplexing issue of why recent cohorts of immigrants – in many cases admitted to Canada at least partly on the basis of their stock of human capital (i.e., their educational attainment) – are doing poorly relative to their Canadian-born counterparts as well as previous cohorts of immigrants. In particular, why are these new immigrant groups apparently starting at lower earnings levels and taking longer than their predecessors to “catch up” to native-born Canadians? What are the longer run implications of these trends? What do they mean for immigration policy?<sup>1</sup>

Another more recent, and much more limited, line of research has begun to look further down the road in terms of immigrants' economic adjustment to look at the educational outcomes of immigrants' children. The importance of this issue stems from it being well understood that one of the most critical determinants of success in the Canadian labour market is an individual's level of schooling, especially their participation in post-secondary education, which implies that the educational attainment of immigrant's children is likely to be an important indicator of their ensuing economic wellbeing.

Interest in this topic is driven in part by a general and abiding interest in immigrant outcomes, due in turn to the sheer numbers of immigrants we let in and their importance to our demographic, economic, and social future. But it is also driven, at least in part, by recent developments in Europe, in particular, where the children of at least some immigrant groups in some countries appear not to be integrating into the mainstream either economically or socially, the most extreme alienation taking the form of ghettoised communities, riots, religious extremism and even outright terrorism. Less dramatically, but more specifically, studies have found that recent second generation immigrant educational outcomes have not been as favourable as might have been hoped for (e.g., Osterberg, 2000, Nielsen, Rosholm, Smith and Husted, 2001, and Van Ours and Veenman 2002, 2003).

Important Canadian studies in this area include Hansen and Kucera, 2004, Bonikowska, 2007, Hum and Simpson, 2007, Aydemir and Sweetman, 2008, and Aydemir, Chen and Corak, 2008b. The general finding of this research is that second generation immigrants (i.e., the children of immigrants) have been outperforming “non-immigrant” (i.e., “third” generation or greater) young people (as well as their immigrant parents) in terms of education levels and/or earnings.

---

<sup>1</sup> See for example, Abbott and Beach, 1993, Aydemir and Skuterud, 2005, Baker and Benjamin, 1994, Bloom, Grenier and Gunderson, 1995, Frenette and Morissette, 2005, Grant, 1999, Li, 2001, Meng, 1987, and McDonald and Worswick, 1998, 1987.

What else does the immigrant literature tell us pertaining to immigrants and post-secondary education? It informs us that first- and second-generation Canadians form a very sizeable proportion of the Canadian population – about 35% of those aged 16-65 years (Aydemir, Chen, and Corak, 2008a); that there are higher rates of return to post-secondary education for immigrants when the schooling is obtained in Canada than when it is gained elsewhere (Hum and Simpson, 1999, McBride and Sweetman, 2003, Alboim, Finnie and Meng, 2005); that there are significant differences in the rates of return to schooling gained in the source country by immigrants' region of origin (Ferrer and Riddell, 2008); that there are important differences in schooling and labour market outcomes amongst those who enter Canada at different ages (Schaafsma and Sweetman, 2001); and that there is a positive intergenerational transfer of education (de Broucker and Lavallée, 1998) and a slow convergence of education levels to those of the Canadian-born (Sweetman and Dicks, 1999). Altogether, then, this body of evidence suggests that the offspring of immigrants, on average, obtain more schooling than other Canadians (post-secondary education in particular), and will enjoy relatively high earnings levels as a result.

The contribution of this paper is to present new empirical evidence on one particular aspect of this set of issues: access to post-secondary education (PSE) on the part of “first generation” and “second generation” children of immigrants – i.e., including those who were born out of the country and who themselves arrived as immigrants (i.e., the first generation group), as well as those born in Canada but whose parents were immigrants to the country (second generation).

In fact, the first group has been termed the “1.5 generation” of immigrants (e.g., Aydemir and Sweetman, 2008), indicating that while they were indeed immigrants who themselves moved to this country, they came early enough to enter the Canadian educational system, and – of particular importance in our case – to face their PSE opportunities in Canada rather than in their country of origin. This separates them from other first generation immigrants (the “1.0 generation”) who arrived in this country when older, after their schooling was complete. Educational attainment and labour market outcomes diverge significantly for these groups, and the Canadian nature of the educational opportunities of the 1.5 generation is clearly key to these differences.

Our analysis is carried out using the extremely rich and relatively under-utilised Youth in Transition Survey (YITS) “Reading Cohort”, or “YITS-A”, which consists of a large, representative sample of individuals aged 15 in December of 1999, first interviewed in March-April 2000. Subsequent Interviews were conducted at two-year intervals, the most recent taking place in 2006, capturing these individuals at age 21, or at a point where they have in most cases made at least their initial decisions regarding

participation in PSE.<sup>2</sup> Schooling experiences are carefully tracked in the data, making the YITS-A database extremely well suited to the study of educational pathways, including studies of access to PSE.

In fact, the authors have previously carried out a general analysis of access to PSE using the YITS-A (Finnie and Mueller, 2007, 2008a, b), and that earlier work represents the point of departure for the present paper with its focus on the PSE experiences of the first- and second-generation children of immigrants. The YITS-A facilitates this new focus through, most fundamentally, its identification of the immigration status of these young people and their parents, including the specific country of origin.

The data also include, however, a variety of family background characteristics, including parental education attainment and family income levels, which allow us to control for, and assess the importance of, these important drivers of access to PSE in explaining the observed differences in PSE participation rates between the immigrant and non-immigrant groups.

The YITS-A also includes, however, an unusually rich set of variables representing the individual's high school experiences, including grades, reading ability as measured by the international "PISA" test score, and a range of "scale" variables that capture the young person's attitude to school, work habits, social and academic engagement, and other factors which are used to further unravel the factors associated with the observed PSE participation patterns.

The paper thus addresses the following questions. Does access to PSE differ, overall, for first and second generation children of immigrants as compared to "native" or "third generation or higher" (i.e., non-immigrant) Canadians? How do these differences vary by country of origin or by different combinations of the mother's and father's immigration status, including cases when one parent is an immigrant and the other is not? What are the underlying factors that appear to be driving these patterns? These latter include, first of all, more purely exogenous factors such as the family's place of residence (urban-rural, province), parental education and family income, as are often included in access models.

But the list of factors also includes the more potentially endogenous factors related, in particular, to the individual's high school experiences mentioned above. But despite the questions related to strict causality, including these measures remains interesting if only from a descriptive perspective, given the unique nature of these measures. For example, we find that certain immigrant groups attend university at substantially higher rates than non-immigrant youth, but that these differences are largely "explained" by factors such as, in the first place, their urban living patterns and their parents relatively high levels of education, and in the second, by their high school grades, PISA reading scores, and the other related

---

<sup>2</sup> One more survey is scheduled for 2008, while a new cohort is planned for 2009.

variables – while other groups have higher attendance rates which persist to a significant degree even after these factors are taken into account.

In this way, the paper paints a detailed picture of the comparative PSE experiences of immigrant youth, and the underlying dynamics driving these differences.

It should be noted that our analysis has a very specific cohort interpretation – those 15 year-olds included in the YITS-A dataset. Our results will not, therefore, be directly comparable to other studies which use census (mostly) and other data to look at broader groups of immigrants and non-immigrants. In particular, our “1.5 generation” immigrants represent individuals who were born in 1984 and came to Canada with their families and became landed immigrants or citizens sometime between then and 2000. Our “second generation immigrants” also include all those born in that same year (1984) to immigrant parents, but who were themselves born in Canada. Finally, our “non-immigrant” population includes individuals of the same age (birth in 1984) who had no immigrant parents.<sup>3</sup> The comparisons involved in the analysis are fair, interesting, and useful, and must only be interpreted in this specific context.

Our analysis uses the standard definition of access employed in the literature, defined as whether a person has at some point been enrolled in PSE, whether or not they completed their studies. “Persistence” is, in comparison, typically defined as the subsequent process of moving from one year to another through PSE, on to graduation, but represents another distinct topic, which in our case is not as well suited to the YITS-A data since our samples capture individuals at a maximum age of 21, when persistence is still very much an on-going process.<sup>4</sup> Educational attainment is yet another concept, typically referring to final schooling levels, and is again not the subject of our analysis, for similar reasons.

We do, on the other hand, include both college and university attendance in the analysis (the former defined to include the smallish number of those in trade school). To do so, we employ the multinomial logit approach previously used in Finnie and Mueller (2007, 2008a, b) which treats the particular level of PSE as a jointly determined process along with the decision to go to PSE or not. We believe this model represents both the conceptually and econometrically correct treatment (which various tests have further verified). This approach also yields, after the appropriate transformations into probability space are made, easily interpretable estimates which provide a full perspective of the effects of the explanatory variables

---

<sup>3</sup> All individuals included in the YITS must have passed other basic inclusion criteria, including having been enrolled in a Canadian high school at age 15. These general conditions and the specific sample inclusion criteria used in our analysis are described further below.

<sup>4</sup> The companion YITS-B database is better suited to studying persistence, and has been used to do so in a number of recent papers, including (Finnie and Qiu, 2008a, b) but those data are not as good for looking at immigrant outcomes since the immigrant sample size numbers are not as large and the information available is not generally as rich as in the YITS-A.

on access to college, access to university, and the net effects on the two PSE outcomes relative to non-attendance.

Taking these characteristics of the analysis together, based largely on the unique strengths of the YITS-A database in terms of the information on both educational and family background variables, including the detailed immigration status of the respondent and his/her parents, as well as the other high school background variables included in the analysis, we believe this study provides a view of the educational experiences of first and second generation children of immigrants which adds to our understanding of these relationships in a way that not only informs the issue, but also has important implications for our expectations of the future wellbeing of the children of immigrants and, therefore, immigration policy in this country.

The paper is organized in the usual way. The next section discusses the relevant literature, followed by a section on the methodology and the data. Section IV discusses the results of the empirical analysis. The concluding section summarizes the main results and discusses some of the principal policy implications of these findings.

## **II. The Literature**

There currently exists only a limited body of research on the educational experiences of first- and second-generation Canadians. One recent paper is Hum and Simpson, 2007, who use the Survey of Labour and Income Dynamics (SLID) to find that second generation immigrants tend to have higher educational attainment compared to Canadian-born non-immigrants, and that this attainment has largely been passed from generation-to-generation, since their parents also tend to be highly educated. Higher education attainment is, however, dependent on the definition of second generation immigrant: those with one immigrant parent had about one-half year of additional education compared to the Canadian-born, while those with two immigrant parents had about one additional year. Second-generation immigrants were also much more like to hold a university degree compared to native born Canadians. Hansen and Kucera, 2004 also use the SLID and also find that second generation immigrants have more education, on average, than their native counterparts. Both of these studies thus confirm the results reported in earlier work by Sweetman and Dicks, 1999, who find a positive and significant correlation in educational attainment across immigrant generations.

Aydemir, Chen and Corak (2008b) use different data, the 2001 Census – as well as earlier census data to construct “probable” (imputed) parental characteristics (rather than actual characteristics) – and come to comparable conclusions regarding the educational attainment of first- and second-generation immigrants. Aydemir and Sweetman (2008) also use the 2001 Census and control for ethnicity, and come to

essentially the same conclusions. Finally, Bonikowska (2007) uses the Ethnic Diversity Survey – which contains a wide variety of ethnic categories but is limited in the number of educational background variables – to show that second-generation immigrants attain higher levels of education compared to the Canadian-born even after controlling for parental education and ethnicity.

In sum, these studies, using a variety of Canadian data sources and methodologies, find that second generation immigrants have higher levels of educational attainment than both the native-born and first generation immigrants (i.e., their parents, at least conceptually speaking – if not always lined up directly on an individual level or even in a cohort sense), and that the effects of parental education as well as ethnicity are important drivers of these outcomes, but do not explain the entire gap.

The fact that second-generation immigrants are more educated than non-immigrant Canadians is, in the end, perhaps not very surprising, given that i) research on post-secondary access in Canada shows that the most important determinant of an individual's educational attainment is parents' education levels, and ii) immigrants tend to be better educated than non-immigrant Canadians. Ergo, as long as educational attainment is at least as heritable for immigrants as non-immigrants, we should expect the children of immigrants to have higher educational attainment than non-immigrant Canadians. But other factors also matter (e.g., family income) and it is not, *ex ante*, guaranteed that this educational heritability does in fact hold, so the research findings remain interesting, and important.

In fact, even as the labour market outcomes of new immigrant arrivals appear to be declining, immigrant educational attainment appears to be increasing. According to recently released data from the labour force survey, Zietsma, 2007 shows that in immigrants arriving in the five years leading up to 2006 were more likely to have a bachelor's degree or higher compared to those who arrived in the previous five years – and both immigrant cohorts were much more likely to hold bachelor's or advanced degrees compared to the Canadian-born. Insofar as the intergenerational transfer of education remains strong, this bodes well for the education of future second-generation immigrants.

What the present study contributes to this literature, based on the YITS-A data used, is to be able to look at the educational outcomes of a large sample of youth as they enter the phase of their lives when they are making their most important schooling decisions (e.g., whether to go to PSE); to have detailed and accurate identification of the immigration status of the youth and their parents, including information on the precise country of origin; and to be able to link educational outcomes to an unprecedentedly rich set of background variables.

### III. Methodology and Data

#### ***The General Methodological Approach and Econometric Model***

We use a standard empirical model for estimating access to PSE, where access to college or university is taken to be a function of different sets of influences including, first, only the immigrant indicators. This allows us to start with the raw differences in PSE access by group – which of course correspond very closely to what we observe in the simple descriptive data. We then add the principal demographic and family background variables (parental education and so on) that are typically included in such models. We then finish with the more comprehensive set of regressors representing the other influences captured in the YITS-A (high school grades, PISA reading scores, high school engagement, etc.)

This general method was previously employed in Finnie and Mueller (2007, 2008a, b) to study the relationship between access to PSE and family background for the general youth population. Here it is adapted to our focus on immigrants.

More specifically, the model may be expressed as follows:

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

where  $Y$  represents the access measure of interest (i.e., no PSE, college, university) the  $X_i$  are the vectors of covariates that influence  $Y$ , the  $\beta_i$  are the coefficients associated with each set of  $X$ , and  $\mu$  is a stochastic error term.

The vector  $X_1$  thus consists of the immigrant identifiers. These come in two forms. In the first, the youth are classified solely by their broad immigrant status: first generation immigrant (or rather, the “1.5 generation” given their relatively early arrival in the country), second generation immigrant, or non-immigrant. This specification allows us to capture the overall record of immigrant youth’s PSE experiences. In the second specification, the region of birth of the respondent (for first-generation immigrants), or the region of birth of the individual’s parents (for second-generation immigrants) are substituted for the broader measures. This allows us to get at the different PSE experiences of these different groups of immigrants.

The vector  $X_2$ , is then added to the model as a second block, and includes conventional demographic and family background variables such as family income, parental education and family type, as well as urban-rural residence, province, and minority language indicators. These variables are added to each of the two models corresponding to the two different sets of immigrant identifiers described above (aggregate,



detailed), and yield the differences in PSE access rates by immigrant group after controlling for the additional regressors. Conversely, in observing the change in the immigrant identifiers from the first model (immigrant identifiers only) to the second (adding the additional controls), we are able to see how much of the overall or raw gaps are related to these factors, including the key parental education variables.

The final vector of regressors,  $X_3$ , contains the variables pertaining to the individual's academic preparation, high school experiences, and other attitudinal variables referred to above, including the PISA reading score, high school grades (overall average and that gained in math and English), academic and social engagement, parental discipline habits, and others. Again we are able to see what gaps remain after these variables are added – and in observing the changes from the second model to the third, how much of the gaps are related to these factors.

### ***The YITS-A Data and the Samples Used***

The data used in the analysis are taken from the Youth in Transition Survey – Reading or A Cohort (generally known as YITS-A). The YITS-A is ideal for this application since it follows all young people born in 1984 through their high school years and beyond.

These data currently consist of four cycles (corresponding to the interviews that have been undertaken). Furthermore, the first cycle includes interviews not only with the respondents, but also with their parents and high school officials, and also contains the youths' "PISA" reading scores (an international standardized test in which Canada participated). Follow-up surveys were carried out with respondents (but not parents or school officials) in 2002, 2004 and 2006, when they are 21 – an age at which the great majority of young people have made their PSE decisions.<sup>5</sup>

The dependent variables used in our study represent the "highest" level of PSE in which the individual participated up to the Cycle IV interview – college or university (with university arbitrarily classified as being the "higher" of the two). Access to these are compared to the "baseline" outcome of no PSE.

We follow standard conventions in defining a first-generation immigrant as one who was born outside of Canada but who subsequently moved to the country and had become a citizen or landed immigrant by the time of the first survey (i.e., age 15). A second-generation immigrant is defined as one who was born in Canada, but who has at least one parent who was born outside of Canada. All other individuals are treated as Canadian-born with Canadian-born parents (i.e., third generation and higher).

---

<sup>5</sup> Other data (including the YITS-B) show that access rates change only slowly after this age.

The YITS data also allow us to identify the particular country of birth of the respondent and his or her parents. Countries of origin are combined into nine groups: Anglosphere (all Western English-speaking countries), the Americas (excluding the U.S.), Africa, China, East and Southeast Asia (including India and Pakistan), Other Asia (including Japan and South Korea), Western and North Europe, Southern and Eastern Europe, and Others. A full listing of the countries included in these categories is contained in Appendix Table 1.

Non-Canadian citizens, those with unknown immigration status, those who were still continuing in high school at Cycle IV, and those with missing values of the variables used in the models are deleted from the samples. The final sample used in the first parts of our analysis contains 16,825 observations, or 96.8 percent of the initial total (a very high retention rate that reflects the high quality of the YITS data). These include 8,216 males and 8,609 females. Sample sizes are then reduced somewhat due to missing values on some of the variables included in the different models, as shown in the tables of results. A full accounting of the observations dropped from the sample at various stages of the estimation process is contained in Appendix Table 2.

The YITS-A data have a number of important strengths relative to the data that have been used in previous studies. To date, three datasets have been used. The Census (Aydemir and Sweetman, 2008; Aydemir, Chen and Corak, 2008b) is rich in terms of sample size, identification of the country-of-origin of individuals and (in the case of the 2001 data) their parents, as well as education and income information for the respondent. However, details on parental income, parental education, parental country of birth (before the 2001 data), and other background variables, including the wealth of data relating to individuals' high school experiences included in the YITS-A, are lacking.

Other studies have used the Ethnic Diversity Survey (Bonicowska, 2007; Aydemir, Chen and Corak, 2008b) which contains detailed information on the educational attainment of parents, but no information on their earnings or the other detailed background variables. The small sample sizes from many countries of origin also limit the analysis.

Hansen and Kucera (2004) and Hum and Simpson (2007) use the Survey of Labour and Income Dynamics, but these data again suffer from rather small immigrant sample sizes and also lack the detailed background information on individuals' high school and related experiences.

The YITS-A thus has a unique set of strengths for analysing the educational experiences of immigrant youth and comparing their experiences with non-immigrant youth. The one potentially important shortcoming of the dataset is its attrition rates. Once we include only those records for which the parent survey was completed in Cycle I (taking the sample from 29,687 observations to 26,063 observations), the subsequent three cycles had response rates (completed surveys) of 93.6 percent, 85.3 percent, and

83.5 percent of the remaining observations at each cycle. While these response rates are quite good for a longitudinal survey, especially one involving youth (who are an inherently mobile group), it still means that we are down to 66.7 percent of the original survey by the end. The sample weights developed for the dataset (which vary with the cycle) should help reduce attrition effects to at least some degree, and we also performed tests where we compared access patterns for the third and fourth cycles (across which there was of course attrition) and the results were very similar in the two cases, suggesting that attrition at that point, at least, was not a major factor.

## IV. Empirical Results

### *Descriptive Statistics*

The summary statistics for the variables included in the analysis are shown in Table 1. The patterns are consistent with what is typically found in the literature, but are worth a quick overview. PSE participation rates are much higher for females than for males, 81.2 per cent versus 68.8 per cent, this difference almost entirely due to the higher university participation rates of young women – 49.9 per cent compared to 34.3 per cent for males. University participation rates are higher among urban residents, with rural residents having higher rates of college attendance but lower PSE participation rates overall. University participation rates are the highest in the Maritimes, and lowest in Alberta. Children from two parent families have higher overall PSE rates, and are especially ahead in terms of university attendance, compared to those with only one parent present. Parental education is strongly related to PSE attendance, especially university. Parental income also shows a positive influence, although it is weaker than that of parental education.

For our purposes, the data on immigrants are the main focus. Both first- and second-generation immigrants have higher overall PSE participation rates than non-immigrants, with higher university rates driving this difference: non-immigrant Canadians have a 37.7 per cent rate of university participation as compared to rates of 57.0 and 54.3 percent for first and second generation immigrants. In contrast, non-immigrant Canadians are more likely to go to college than immigrants, their participation rates being about five percentage points higher. In short, immigrant children are i) more likely to go to PSE, and ii) more likely to go to university when they do go to PSE than are non-immigrant Canadians.

In terms of region of origin, we find a number of interesting patterns, some perhaps surprising. The overall PSE participation rates of those born in Africa, China, and Other Asia (i.e., first generation immigrants) exceed 90 per cent, the highest rates in these data, these differences mostly driven by their higher university attendance rates. China is the greatest outlier, with a full 88.3 percent going to university, another 10.3 percent going to college, and just 1.4 percent not accessing PSE at any level. The Americas

(excluding the U.S.) have the lowest overall PSE participation rate (62.1 percent) – not only among the immigrant groups, but with respect to the non-immigrant population as well. This is the only immigrant group for which this is the case. Those from the Anglosphere and those from Western or Northern Europe have overall participation rates in the 70 per cent range, comparable to those born in Canada to Canadian-born parents.

Amongst second-generation immigrants, there are a number of sets of results, reflecting mother's origin (regardless of the father's status), father's origin (same), and where both parents are from the same region along with those of mixed origin. The results are generally quite similar across the different ways of looking at immigration status, with second-generation immigrants with one or both parents from China, Africa or Other Asia having the highest overall participation rates, again in the 90 per cent range, those from the Americas having the lowest, and the others laying between these extremes.

Before we move on with the analysis, Table 2 gives the breakdown by region of origin of the immigrant groups: the respondent's own region in the case of first-generation immigrants, and the region of origin of the parents in the case of second-generation immigrants.

We now turn our attention to the multivariate analysis of these data.

## ***Multivariate Results***

### **Differences by Aggregate Immigrant Groups**

Table 3 presents the results obtained with the multinomial logit model with the first blocks of regressors, and using the aggregate immigrant indicators. The first column represents the model which includes only the immigrant indicators, and reflects the overall raw differences shown in the descriptive statistics above, namely, that both first- and second-generation immigrants are more likely to attend PSE, especially university, compared to those born in Canada to Canadian parents. The results shown represent the average marginal effects associated with each of the explanatory variables, as generated by the appropriate transformations of the regression coefficients.<sup>6</sup> These indicate that first-generation Canadians are 19.3 percentage points more likely to attend university compared to non-immigrant Canadians, with those from the second generation displaying a 16.6 percentage point advantage. Given the mean university participation rate in the sample of 42.1 per cent, these are large differences.

---

<sup>6</sup> These should be interpreted as the estimated effect of the variable in question on the outcome in question, taking into account how the variable affects the other outcomes.

The second column adds the set of basic controls representing urban versus rural residence, province, linguistic minority, and family type to the model. The effects all appear reasonable, but more interesting to the focus of this paper is that – perhaps surprisingly – adding them reduces the marginal effects of the immigrant indicators substantially. Although both first- and second-generation immigrants remain about 10 percentage points more likely to attend university than non-immigrant Canadians, for example, about half of the overall (raw) gap on the part of first generation immigrants, and 34 percent of the raw gap for second generation immigrants is explained by these basic control variables (i.e., this is the decline in the estimated effects between the first and second model). Their higher rates of living in cities and coming from two parent families are likely most important in this regard.

Column three adds parental income to the equation. The income effects are – in the absence of the parental education measures – quite strong, and taking income into account raises the university coefficient of first generation immigrants by several percentage points, less so for second-generation immigrants. This is an interesting, but not surprising result. It is well known that recently arrived immigrants (and hence the parents of the first generation immigrants included in our samples) tend to have lower incomes than the Canadian-born. Since income has a positive effect on PSE attendance, taking immigrant families' low incomes into account thus boosts the "pure" immigrant effect – i.e., they are *especially* more likely to attend given their low incomes. This effect is weaker for second generation immigrants, presumably because their families have been in the country longer and are therefore no longer at a general income disadvantage.

The final column adds the level of education of the highest educated parent to the model. The estimated parental education effects are strong, and in fact reduce the income effects substantially, thus once again showing that parental education is the greater effect and that income effects are substantially biased upward if parental education is not included (Finnie and Mueller 2007, 2008a, b). Including the education variables also reduces the first generation immigrant effect to the point that it is statistically indistinguishable from zero; for second-generation Canadians, the effect remains positive and significant, but is reduced to 8.4 percentage points. Taken together, these results indicate that the higher immigrant PSE participation rates are, especially in the case of first generation immigrants, substantially due to their parents having relatively high education levels, which tend to drive their PSE participation rates upwards. Still, the positive university attendance effect found for second-generation Canadians remains even after parental education is added, suggesting that there are differences – and effects – even beyond those associated with parental education.

## The Detailed Immigrant Groups

In Table 4 we replace the aggregate immigrant indicators with the detailed region of origin indicators of the immigrant him- or herself in the case of the first generation immigrants, or the region of origin of the parents in the case of the second-generation immigrants. The different columns of the table represent the same model progression as was just seen using the aggregate indicators. The first column in Table 4 thus includes only the immigrant origin variables, essentially capturing the raw, unadjusted differences in PSE participation rates of each of the immigrant groups as compared to the non-immigrant population, and the model is then augmented in a step-wise fashion with the basic demographic controls, the family income controls, and the parental education controls in columns 2 to 4, respectively.

Reflecting the descriptive data seen earlier, the results in the first column point to large differences by country of origin in access rates to PSE, now seen in a regression format. Immigrants of Chinese, Other Asian, and African origin are considerably more likely to go to university, in particular, and in some cases substantially so, regardless of which generation (first or second), as are first (but not second) generation Southern-Eastern Europeans (and with lowered statistical significance). In contrast, the only group with significantly lower-than-non-immigrant university participation rates is the first generation American group (excluding the United States). The other effects are positive, but not statistically different from zero.

One other interesting pattern emerges. Those with Canadian mothers married to immigrants have 19 percent higher university access rates than non-immigrant Canadians, but the difference drops to 14 percent when there is an immigrant mother and a non-immigrant father. Those with two immigrant parents from different regions are 22 percent more likely to access university.

Working across the models, the immigrant group effects are generally reduced as the other regressors are added, but to different degrees. Among the first generation groups, the negative Americas effect on university attendance is in fact basically unchanged in the final column, meaning that their overall lower rates are not explained by the basic demographic characteristics, income levels, or parental education levels of the families they come from, but by some other unmeasured factor(s).

For China, too, only a smallish portion of their significantly higher university participation rate is explained by the different sets of regressors, as the estimated effect falls from 51 percentage points in column 1 to 45 points in column 4. The Other Asia effect, however, falls much more, especially in proportional terms, from 31 to 15 percentage points, mainly due to the basic demographic controls and parental education variables. The Southern-Eastern Europe effect goes from 15 percentage points to essentially zero (in fact a negative point estimate) across the models, the same variables being responsible (demographic characteristics, parental education). The Africa effect goes from a marginally significant 27 percent to a non-significant 17 percent.

Among the second generation groups, roughly similar patterns are evident, but with some different nuances. The strongly positive China effect is again only somewhat reduced as the other regressors are added (from a 44 percent difference in university participation rates to 35 percent), but they are now joined in this regard by the African group (from 45 percent to 35 percent). The Other Asia effect is reduced by about the same number of percentage points as these others (from 29 percent to 21 percent), but this change represents a greater proportional decline due to the lower starting level.

The effect of having a Canadian mother and an immigrant father falls from 19 percent in the first column to 11 percent when the full set of controls is added. For the Canadian father and immigrant mother combination, the decline is from 13 percent to a non-significant 4 percent. Second-generation immigrants with two immigrant parents from different regions go from a 22 percent higher university access rate to 9 percent, and only marginally significant.

The conclusions thus far are that i) there are significant overall differences in PSE participation rates between first and second generation immigrants and non-immigrant Canadian youth, ii) these differences vary a great deal by source country, and iii) in some cases a substantial amount of the gap is explained by the basic demographic controls included in the models and parental education levels, while the influence of family income tends to work against immigrants, but iv) in some cases substantial differences remain.

## **Adding the Grade and Scale Variables**

We now add the grade and scale variables to the models. We recognise that these variables are at least in some cases potentially endogenous to participation in PSE decisions (e.g., someone who wants to go to university will presumably attempt to get the grades required to be admitted), but in other cases this is less likely to be the case (e.g., some of the parental behaviour variables). But the basic idea here is to again see how much further the observed gaps can be narrowed by including these variables, thus indicating that the observed differences are “related to” or “work through” the variables in question, and how much of the gap remains, indicating that the effects remain *on top of* the controls added. Is it, for example, higher grades and academic engagement during high school that *allow* the Chinese to go to university at such high rates, or are the effects still strong even after controlling for parental education, family income, the high school variables, and so on? And if it is the latter, what might be driving these remaining differences?

The grade variables are largely self-explanatory, the PISA reading score is what was obtained on the standardised international test administered to all those include in the YITS, and the scale variables are

explained in Appendix 4. Results are shown for the full models, including the grade and scale variables, but suffice it to say that the variables behave as expected, and consistently with other cases where they have been employed (e.g., Finnie and Mueller 2007, 2008a,b). Here they are included mainly as controls, and we again focus on the immigrant effects.

Table 5 shows the results for the models which include the aggregate immigrant indicators. For comparison, the first column repeats the results for the model with the basic controls, including parental education and family income, and is therefore identical to the final column in Table 3. The second column adds high school grades to the basic model, the third column adds the scale variables (plus the PISA reading score), and the final column adds both the grade and scale variables.<sup>7</sup>

Most of the effects tend to be stable across specifications. There are some notable exceptions, however. The coefficient on the female indicator drops by over two-thirds from the first model specification to the final specification. This is mainly the result of the better high school grades earned by young women, but is also associated with other factors such as their academic participation (i.e., going to class, handing in assignments on time, etc.). The importance of parental education is also diminished greatly once the grades and scales are added to the model. For example, in the first model we see that an individual with a parent holding a graduate degree is almost 40 percentage points more likely to attend university; in the model including both grades and scales, this figure is almost halved. Thus, much of the parental education effect appears to be related to these other “intermediate” outcomes or is otherwise correlated with the newly added regressors.

This sets the stage nicely for looking at the immigrant effects because in contrast to the female and parental education variables, they do not change very much across the different specifications. First generation immigrants still show differences in attending either college or university that are generally quite small (e.g., 3.7 percent higher university rates in the final model), are at best only marginally significant, and are quite stable across the models, while second generation immigrants have university attendance rates in the 7 to 8 percentage point range above the non-immigrant group in the four models.

That said, we do observe a small dip in the differences for both groups when grades (only) are added, suggesting that some of the immigrant differences in participation are in fact related to these variables – i.e., they tend to do well in high school, and those who do well in high school tend to go on to PSE, university in particular. The scale variables (including the PISA reading score), in contrast, go slightly the

---

<sup>7</sup> To address any possible biasing effects related to gender differences in PSE participation rates, we divide the sample into males and females and again estimate the same specifications as in Table 5. The results are presented in Appendix Tables 3a and b. They show little difference between genders, at least amongst the immigrant variables of interest to us here.



other way for first generation immigrants: the differences get a bit larger, suggesting that these factors tend to work *against* immigrant participation in PSE. But overall, the two sets of effects are fairly small and leave the second-generation effect, in particular, only slightly smaller, and still statistically significant.

Table 6 repeats this exercise using the more detailed immigrant indicators, and these finer cuts appear to let the grade and scale effects bite a little harder. Among first-generation immigrants, for example, the three groups that show significantly different university participation rates in the first column (the model with the controls that were previously added), show smaller effects when the grade variables are added, in particular: smaller negative effects for the Americas, and smaller positive effects for China and Other Asia. (The effects decline for Africa too, but none of the estimates are statistically significant at this point.) The Americas effect also declines a bit when (only) the scale/PISA variables are included (column 3), as do the China and Other Asia effects, but a bit less than when the grade variables are added (although the differences in the effects for the two different sets of variables are probably not statistically significant). The other effects (i.e., for the other regions) – and their changes as the variables are added – are smallish and not very precisely estimated at this point, thus precluding us from drawing much from them.

The bottom line here is that among the first generation immigrant differences, a smallish portion appears to be related to their high school performance: they get higher grades, and have greater university participation rates at least partly due to this.

A similar story holds for second generation immigrants: reduced effects for Africa, China, Other East and South-East Asia, and Other Asia immigrants, to varying degrees, as the additional blocks of variables are added, grades in particular.

But what do these effects mean? As alluded to above, the measures that have been added here – especially grades – are to some degree likely to be endogenous to PSE decisions. But the results of this exercise i) show to what degree the immigrant differences are in fact related to these “grade effects” (and other influences), and perhaps as importantly, ii) show that in at least some cases important differences remain *even after* controlling for this very extensive set of factors.

The next question to ask is perhaps what *is* the source of these remaining differences? Again, we are tempted to use terms like “culture” and “preferences”. Take two children from families with the same incomes and parental education levels, living in the same province, both in a city (or both rural), and even hold their high school grades and high school experiences as measured so extensively in the YITS-A constant – how then do their PSE access rates compare? Well, in some cases they differ a great deal: those from the Americas (first generation only) – are less likely to go to university (and PSE of any type), while Chinese (either generation), Other East and South-East Asian (second generation only), Other

Asian (first generation only) are likely to go at substantially higher rates. Some of the other parameter estimates point in the same direction, but are not very precisely estimated (e.g., Africa for either generation, Other Asia for the second generation), possibly due at least partly to limited sample sizes.

## V. Conclusions and Policy Implications

Using the YITS-A and a series of multinomial logit models we find that there exist significant overall differences in PSE participation rates between first- and second-generation immigrants and non-immigrant Canadian youth, that these differences vary a great deal by source country, and in some cases a substantial amount of the gap is explained by the basic demographic controls included in the models and parental education levels. However, the generally lower level of family income among immigrants does tend to work against their children. Still, despite all the inclusion of a larger number of controls, in some cases substantial differences remain between the Canadian-born and their immigrant counterparts. In particular, second-generation immigrants on average have about a seven percentage point advantage of attending university, but no statistically meaningful difference in college attendance compared to non-immigrants. When we disaggregate by region of origin, first- and second-generation Chinese immigrants consistently show the highest university participation rates regardless of the specification estimated. Those from Other Asia (a region which includes South Asia and the Middle East) generally show higher university participation rates as well, as do those from Africa, while those from the Americas show lower rates, although these results depend on the generation of the immigrants as well as the specification, and the estimates tend to be subject to high standard errors. Whether this later point is due to the relatively small numbers of individuals from these regions, or some underlying behavioural difference between regions is not clear.

Still, the difference between immigrants and non-immigrants, and between immigrants from different origins, remains substantial, important, and unexplained by the rich set of determinants of PSE that we have included. We have pushed these data about as far as is possible. We leave further explanation of these differences to future research. Here, we can only speculate that these regional differences have something to do with rather fuzzy concepts such as “culture.”

A number of interesting and relevant policy implications follow from this research coupled with some of the stylized facts we know about immigration and the post-secondary education.

First, even though it is well known that recent immigrants to Canada are not performing as well in the labour market as either the Canadian-born or more well-established immigrants, the fact that second-generation immigrants have a much higher university participation rates means that the benefits of immigration should be viewed in a longer term perspective. Here we agree with Hum and Simpson

(2007:1985) who note that the superior labour market performance of the second generation is in part due to their higher educational attainment “which constitutes an *important legacy of immigration* that should not be ignored” [emphasis added]. Indeed, this legacy factor should be taken into consideration when evaluating the net benefit of immigrants to Canada.

Second, the higher university participation rates among second generation immigrants and the differential access rates by region of origin have implications for PSE education policy. We expected that second-generation immigrants would have higher PSE participation rates than non-immigrants owing to the higher educational attainment of their parents. What is surprising is that these differentials continue to exist once we control for this important determinant. Of particular note are the differences by region of origin as well as the general category composition of immigration. According to Citizenship and Immigration Canada (2007), of the 138,257 permanent residents admitted as economic immigrants in 2006, almost 101,000 of these originated in Africa, the Middle East, and the Asia-Pacific region. Since the children of these immigrants are likely to have high take-up rates of university education (at least according to our estimates), this could put increasing strains on the university system in Canada, especially at urban campuses where most of these new immigrants reside.

Third, and related to the above point, these results do have some thorny implications for immigration policy regarding immigrants from different regions who might prove most beneficial economically to Canada. Should region of origin (or even country of origin) be added to the existing points system to determining to admissibility of new permanent residents? Does this bring us dangerously close to the discriminatory immigration policies of the past?

The discussion of these implications is clearly (and perhaps prudently) beyond the scope of this paper, but this important topic is certainly worthy of further research, the results of which would be more directly related to education and immigration policy.

## References

- Abbott, M., and C.M. Beach. 1993. "Immigrant Earnings Differentials and Birth-Year Effects for Men in Canada: Post-1972," *Canadian Journal of Economics* 25, 505-524.
- Alboim, N., R. Finnie, and R. Meng. 2005. "The Discounting of Immigrants' Skills in Canada: Evidence and Policy Recommendations," Montreal: Institute for Research on Public Policy, *Choix/Choices* 11.
- Aydemir, A., W.H. Chen, and M. Corak. 2008a (forthcoming). "Intergeneration Earnings Mobility among the Children of Canadian Immigrants," *Review of Economics and Statistics*.
- Aydemir, A., W.H. Chen, and M. Corak. 2008b (forthcoming). "Intergeneration Education Mobility among the Children of Canadian Immigrants," Statistics Canada Analytical Research Paper.
- Aydemir, A., and M. Skuterud. 2005. "Explaining the Deteriorating Entry Earnings of Canada's Immigrant Cohorts," *Canadian Journal of Economics* 38, 641-71.
- Aydemir, A, and A., Sweetman. 2008. "First and Second Generation Immigration Educational Attainment and Labor Market Outcomes: A Comparison on the United States and Canada," *Research in Labor Economics* 27, 215-70.
- Baker, M., and D. Benjamin. 1994. "The Performance of Immigrants in the Canadian Labor Market," *Journal of Labor Economics* 12, 369-405.
- Bloom, D. E., G. Grenier, and M. Gunderson. 1995, "The Changing Labor Market Position of Canadian Immigrants," *Canadian Journal of Economics* 28, 987-1005.
- Bonikowska, A. 2007. "Explaining the Education Gap between the Children of Immigrants and the Native Born: Allocation of Human Capital Investments in Immigrant Families," mimeo.
- Citizenship and Immigration Canada. 2007. *Facts and Figures: Immigration Overview, Permanent and Temporary Residents, 2006*. Ottawa: Minister of Public Works and Government Services Canada.

- de Broucker, P., and L. Lavallée. 1998. "Intergenerational Aspects of Education and Literacy Skills Acquisition," in Miles Corak (ed.), *Labour Markets, Social Institutions, and the Future of Canada's Children*. Ottawa, Statistics Canada, Catalogue No. 89-553.
- Ferrer, A., and W. C. Riddell. 2008. "Education, Credentials, and Immigrant Earnings," *Canadian Journal of Economics* 41, 188-216.
- Finnie, R., and R.E. Mueller. 2007a. "High School Student Characteristics and Access to Post-secondary Education in Canada: Evidence from the YITS," mimeo (August).
- Finnie, R., and R.E. Mueller. 2008a. "The Effects of Family Income, Parental Education and Other Background Factors on Access to Post-Secondary Education in Canada: Evidence from the YITS", YITS Research Paper Series, forthcoming.
- Finnie, R., and R.E. Mueller. 2008b. "Family Background and Access to Post-Secondary Education in Canada: The Role of Money, Culture, Schooling and Other Characteristics", in Finnie, R., R. Mueller, A. Sweetman and A. Usher (Eds.), *Who Goes, Who Stays, What Matters: Access to and Remaining in Post-Secondary Education in Canada*, McGill-Queen's University Press, forthcoming.
- Frenette, M., and R. Morissette. 2005. "Will They Ever Converge? Earnings of Immigrant and Canadian-born Workings over the Last Two Decades," *International Migration Review* 39, 228-58.
- Grant, M. L. 1999. "Evidence of New Immigrant Assimilation in Canada," *Canadian Journal of Economics* 32, 930-955.
- Hansen, J., and M. Kucera. 2004. "The Educational Attainment of Second Generation Immigrants in Canada: Evidence from SLID," mimeo.
- Hum, D, and W. Simpson. 1999. "Wage Opportunities for Visible Minorities in Canada," *Canadian Public Policy* 25, 379-94.
- Hum, D., and W. Simpson. 2007. "The Legacy of Immigration: Labour Market Performance and Education in the Second Generation," *Applied Economics* 39, 1985-2009.
- Li, Peter S. (2001), "The Market Worth of Immigrants' Educational Credentials." *Canadian Public Policy* 27, 23-38.

- McBride, S., and A. Sweetman. 2003. "Immigrant and Non-immigrant Earnings by Postsecondary Field of Study," in *Canadian Immigration Policy for the 21<sup>st</sup> Century*. Ed. Beach, Charles M., Alan G. Green, and Jeffrey G. Reitz. Montreal and Kingston: McGill-Queen's University, 413-62.
- McDonald, J.T. and C. Worswick. 1998. "The Earnings of Immigrant Men and in Canada: Job Tenure, Cohort, and Macroeconomic Conditions," *Industrial and Labour Relations Review* 51, 465-482.
- McDonald, J. T. and C. Worswick. 1997. "Unemployment Incidence of Immigrant Men in Canada," *Canadian Public Policy* 23, 353-373.
- Meng, R. 1987. "The Earnings of Canadian Immigrant and Native-Born Males," *Applied Economics* 19, 1107-1119.
- Nielsen, H.S., M. Rosholm, N. Smith and L. Husted. 2001. "Intergenerational Transmissions and the School-to-Work Transition of 2nd Generation Immigrants," IZA Discussion Paper Series, no. 296.
- Österberg, T. 2000. "Economic Perspectives on Immigrants and Intergenerational Transmissions," *Ekonomiska Studier* 102, Göteborg University, Sweden.
- Schaafsma, J., and A. Sweetman. 2001. "Immigrant Earnings: Age at Immigration Matters," *Canadian Journal of Economics* 34, 1066-99.
- Sweetman, A., and G. Dicks. 1999. "Education and Ethnicity in Canada: An Intergenerational Perspective," *Journal of Human Resources* 34, 668-96,
- Van Ours, J. and J. Veenman. 2002. "From Parent to Child; Early Labor Market Experiences of Second-Generation Immigrants in the Netherlands. IZA Discussion Paper Series, no. 649.
- Van Ours, J. and J. Veenman. 2003. "The Educational Attainment of Second-Generation Immigrants in the Netherlands," *Journal of Population Economics* 16, 739 -753.
- Zietsma, D. 2007. "The Canadian Immigrant Labour Market in 2006: First Results from Canada's Labour Force Survey," Statistics Canada Catalogue No. 71-606-XIE2007001.

Table 1: Descriptive Statistics

Variable	Mean	Std. Err.	Participation Rate		
			No PSE	Trade or College	University
			%	%	%
<b>Total</b>			25.0	32.9	42.1
<b>Female</b>	0.498	0.006	18.8	31.3	49.9
<b>Male</b>			31.2	34.5	34.3
<b>HS location</b>					
Rural			32.4	35.4	32.2
Urban	0.769	0.004	22.8	32.2	45.0
<b>HS Province</b>					
Newfoundland and Labrador	0.020	0.001	25.1	30.2	44.7
Prince Edward Island	0.005	0.000	22.0	21.3	56.7
Nova Scotia	0.033	0.001	22.7	22.6	54.8
New Brunswick	0.027	0.001	26.4	24.1	49.6
Quebec	0.226	0.004	29.3	40.0	30.7
Ontario	0.375	0.006	17.8	36.3	45.9
Manitoba	0.037	0.001	32.2	19.9	48.0
Saskatchewan	0.039	0.001	32.0	23.6	44.4
Alberta	0.106	0.003	33.0	28.0	39.0
British Columbia	0.132	0.003	28.2	26.8	45.0
<b>Linguistic Minority</b>					
French Outside QC	0.028	0.001	21.9	34.8	43.3
Other Outside QC	0.101	0.004	11.3	27.1	61.6
English in QC	0.020	0.001	17.2	40.4	42.4
Other in QC	0.012	0.001	16.9	42.2	40.9
<b>Family Type</b>					
Two Parents	0.828	0.005	23.7	32.4	43.9
Mother Only	0.131	0.004	30.8	34.5	34.7
Father Only	0.026	0.002	30.4	39.9	29.6
Other	0.014	0.001	38.4	33.4	28.2
<b>Parent's Education</b>					
Less than HS	0.085	0.003	51.7	33.0	15.3
Some PSE	0.214	0.005	33.9	38.1	28.0
HS Completed	0.067	0.003	27.5	38.7	33.8
Trade/College	0.311	0.005	26.4	37.6	36.0
University - below BA degree	0.047	0.002	15.2	31.6	53.2
University - BA	0.183	0.004	11.2	26.4	62.5
University - Grad	0.093	0.003	5.9	14.5	79.6
Other/unknown	0.001	0.000	35.4	38.2	26.5
<b>Family Income Level</b>					
Extremely Low (\$0 - 5 000)	0.013	0.001	24.8	34.6	40.6
\$5 000 to \$25 000	0.073	0.003	38.0	32.0	30.1
\$25 000 to \$50 000	0.253	0.005	32.6	35.4	32.1
\$50 000 to \$75 000	0.283	0.005	25.7	34.9	39.5
\$75 000 to \$100 000	0.227	0.005	20.0	31.3	48.6
\$100 000 and up	0.151	0.004	12.4	27.8	59.8
<b>Immigrant Indicator Variables</b>					
<b>Aggregate</b>					
Non-Immigrant	0.716	0.005	28.1	34.2	37.7
1st Generation	0.081	0.004	13.8	29.3	57.0
2nd Generation	0.180	0.005	16.2	29.5	54.3
Generation Unknown	0.024	0.002	37.2	33.3	29.5
<b>Detailed</b>					
1st Generation, origin of the student					
Americas (except USA)	0.010	0.001	37.9	39.3	22.8
Africa	0.005	0.001	6.7	28.7	64.6
China	0.014	0.001	1.4	10.3	88.3
Other East & South-east Asia	0.011	0.001	12.6	46.1	41.3
Other Asia	0.018	0.002	6.6	24.7	68.7
Western or Northern Europe	0.003	0.001	22.9	30.5	46.6
Southern or Eastern Europe	0.012	0.001	12.1	35.0	53.0
Anglosphere	0.007	0.001	28.5	23.9	47.6
Others/unknown	0.001	0.001	13.2	45.1	41.8

cont...

Table 1: Descriptive Statistics - cont.

Variable	Mean	Std. Err.	Participation Rate		
			No PSE	Trade or College	University
			%	%	%
<b>Detailed (Cont.)</b>					
<b>2nd Generation, origin of the mother</b>					
Mother is Canadian by birth	0.045	0.002	14.9	28.5	56.6
Americas (except USA)	0.021	0.002	19.4	39.2	41.5
Africa	0.005	0.001	2.4	15.8	81.8
China	0.010	0.001	5.2	13.6	81.3
Other East & South-east Asia	0.011	0.001	11.8	28.7	59.5
Other Asia	0.014	0.001	5.5	28.5	66.0
Western or Northern Europe	0.012	0.001	16.5	29.3	54.3
Southern or Eastern Europe	0.028	0.002	21.9	31.2	46.9
Anglosphere	0.030	0.002	22.5	31.2	46.3
Other / Unknown / No Mom	0.004	0.001	19.5	27.0	53.5
<b>2nd Generation, origin of the father</b>					
Father is Canadian by birth	0.031	0.002	19.9	29.0	51.2
Americas (except USA)	0.013	0.001	18.4	39.4	42.2
Africa	0.006	0.001	6.0	15.5	78.5
China	0.010	0.001	5.8	15.0	79.1
Other East & South-east Asia	0.009	0.001	13.9	27.0	59.1
Other Asia	0.014	0.001	4.0	28.7	67.3
Western or Northern Europe	0.014	0.001	13.4	27.5	59.2
Southern or Eastern Europe	0.032	0.002	19.8	30.1	50.1
Anglosphere	0.027	0.002	21.8	30.4	47.9
Other / Unknown / No Dad	0.022	0.002	16.1	35.6	48.3
<b>2nd Generation, mixture of the parent(s)' origin</b>					
Mother Canadian Father Immigrant	0.045	0.002	14.9	28.3	56.9
Father Canadian Mother Immigrant	0.031	0.002	19.8	29.2	51.0
Both Parents Imm. but Different Origin	0.012	0.001	23.8	16.8	59.5
Both Parents Imm. from the Same Origin	0.067	0.003	14.1	31.0	54.9
Other / Unknown / Single Parent	0.025	0.002	16.2	33.7	50.1
<b>Both Parents Immigrants from the Same Origin</b>					
Americas (except USA)	0.009	0.001	19.6	44.7	35.7
Africa	0.003	0.001	1.8	15.8	82.4
China	0.008	0.001	5.3	13.2	81.5
Other East & South-east Asia	0.008	0.001	12.1	30.5	57.4
Other Asia	0.011	0.001	4.0	28.3	67.6
Western or Northern Europe	0.002	0.001	6.8	36.3	56.9
Southern or Eastern Europe	0.018	0.002	23.8	33.0	43.2
Anglosphere	0.007	0.001	17.9	40.4	41.7
<b>High School Grades</b>					
Overall Grade	77.33	0.11			
Math Grade	74.72	0.14			
Main Language Grade	77.15	0.12			
Science Grade	74.79	0.17			
<b>High School Engagement</b>					
Academic Identification	0.026	0.011			
Academic Participation	0.025	0.012			
Social Engagement	-0.043	0.012			
<b>Self-perception</b>					
Self-esteem	0.285	0.023			
Self-efficacy	0.106	0.016			
Self-mastery	0.327	0.024			
<b>Social Support</b>					
	0.097	0.017			
<b>Parent's Behaviour</b>					
Monitoring behaviour	0.119	0.040			
Nurturance behaviour	0.025	0.022			
Inconsistent Discipline	0.034	0.022			
<b>Reading Ability</b>	<b>535.13</b>	<b>1.1028</b>			



**Table 2: Immigrant Origin**

Origin	Proportion %
<b>Aggregate</b>	
Non Immigrant	71.55
1st Generation	8.09
2nd Generation	17.98
Generation Unknown	2.38
<b>Detailed</b>	
<b>1st Generation, origin of the student</b>	
Americas (except USA)	12.86
Africa	6.77
China	17.23
Other East & South-east Asia	13.64
Other Asia	22.61
Western or Northern Europe	3.63
Southern or Eastern Europe	14.92
Anglosphere	8.34
<b>2nd Generation, origin of the mother</b>	
Mother is Canadian by birth	25.91
Americas (except USA)	11.81
Africa	2.82
China	5.59
Other East & South-east Asia	5.99
Other Asia	7.98
Western or Northern Europe	6.70
Southern or Eastern Europe	15.91
Anglosphere	17.28
<b>2nd Generation, origin of the father</b>	
Father is Canadian by birth	19.90
Americas (except USA)	8.57
Africa	3.91
China	6.60
Other East & South-east Asia	5.99
Other Asia	9.12
Western or Northern Europe	8.75
Southern or Eastern Europe	20.18
Anglosphere	16.99
<b>2nd Generation, mixture of the parent(s)' origin</b>	
Mother Canadian Father Immigrant	25.04
Father Canadian Mother Immigrant	17.25
Both Parents Imm. but Different Origin	6.43
Other / Unknown / Single Parent	13.94
Both Parents Imm. from the Same Origin	37.33
<b>Both Parents Immigrants from the Same Origin</b>	
Americas (except USA)	14.03
Africa	5.03
China	12.32
Other East & South-east Asia	11.87
Other Asia	16.97
Western or Northern Europe	3.29
Southern or Eastern Europe	26.51
Anglosphere	9.99

Table 3: MNL PSE Access Models, Aggregate Immigrant Indicators

	Immigrant Variables Only		Basic Controls		Family Income		Parental Education	
	College	University	College	University	College	University	College	University
Female (Male)			-0.0283*** [0.0103]	0.1614*** [0.0110]	-0.0294*** [0.0102]	0.1663*** [0.0108]	-0.0290*** [0.0100]	0.1662*** [0.0103]
HS location - Urban (Rural)			-0.0510*** [0.0118]	0.1214*** [0.0123]	-0.0441*** [0.0118]	0.0864*** [0.0125]	-0.0330*** [0.0116]	0.0534*** [0.0120]
HS Province (ON)								
Newfoundland and Labrador			-0.1044*** [0.0191]	0.0853*** [0.0208]	-0.1213*** [0.0188]	0.1455*** [0.0204]	-0.1149*** [0.0186]	0.1297*** [0.0202]
Prince Edward Island			-0.1789*** [0.0176]	0.1764*** [0.0197]	-0.1956*** [0.0169]	0.2294*** [0.0185]	-0.1815*** [0.0171]	0.1927*** [0.0185]
Nova Scotia			-0.1667*** [0.0168]	0.1579*** [0.0186]	-0.1792*** [0.0164]	0.2012*** [0.0179]	-0.1645*** [0.0165]	0.1609*** [0.0177]
New Brunswick			-0.1628*** [0.0166]	0.1202*** [0.0186]	-0.1765*** [0.0162]	0.1688*** [0.0181]	-0.1695*** [0.0159]	0.1477*** [0.0175]
Quebec			0.0194 [0.0175]	-0.1093*** [0.0168]	0.0073 [0.0175]	-0.0696*** [0.0169]	0.0113 [0.0175]	-0.0665*** [0.0164]
Manitoba			-0.1826*** [0.0163]	0.0682*** [0.0193]	-0.1893*** [0.0161]	0.0955*** [0.0187]	-0.1860*** [0.0158]	0.0904*** [0.0179]
Saskatchewan			-0.1558*** [0.0163]	0.0638*** [0.0184]	-0.1663*** [0.0161]	0.1072*** [0.0182]	-0.1646*** [0.0159]	0.0899*** [0.0177]
Alberta			-0.0962*** [0.0168]	-0.0306 [0.0174]	-0.0965*** [0.0167]	-0.0295 [0.0172]	-0.1005*** [0.0162]	-0.0248 [0.0162]
British Columbia			-0.0942*** [0.0172]	-0.0111 [0.0178]	-0.1000*** [0.0171]	0.0079 [0.0178]	-0.0983*** [0.0167]	-0.0066 [0.0171]
Linguistic Minority (Speaks Provincial Language)								
French outside QC			0.0255 [0.0239]	-0.0011 [0.0260]	0.0250 [0.0237]	0.0068 [0.0261]	0.0277 [0.0231]	0.0093 [0.0260]
Other outside QC			-0.0018 [0.0276]	0.1032*** [0.0297]	-0.0139 [0.0273]	0.1375*** [0.0302]	-0.0091 [0.0264]	0.1434*** [0.0307]
English in QC			0.0082 [0.0277]	0.1094*** [0.0329]	0.0177 [0.0276]	0.0827** [0.0323]	0.0371 [0.0266]	0.0420 [0.0307]
Other in QC			0.0535 [0.0447]	0.0252 [0.0525]	0.0427 [0.0442]	0.0576 [0.0529]	0.0445 [0.0423]	0.0563 [0.0514]
Family Type (Two Parents)								
Mother only			0.0139 [0.0162]	-0.0963*** [0.0167]	-0.0058 [0.0169]	0.0243 [0.0186]	0.0028 [0.0169]	0.0042 [0.0185]
Father only			0.0536 [0.0349]	-0.1091*** [0.0351]	0.0442 [0.0345]	-0.0437 [0.0364]	0.0615 [0.0344]	-0.0520 [0.0342]
Other			0.0209 [0.0573]	-0.1185** [0.0585]	0.0169 [0.0567]	-0.0601 [0.0617]	-0.0029 [0.0530]	0.0010 [0.0666]
Parent's Education (HS completed)								
Less than HS							-0.0071 [0.0208]	-0.1450*** [0.0225]
Some PSE							0.0140 [0.0213]	0.0353 [0.0230]
Trade/College							-0.0021 [0.0131]	0.0683*** [0.0138]
University-below BA degree							-0.0697*** [0.0232]	0.2046*** [0.0256]
University-BA							-0.0963*** [0.0155]	0.2784*** [0.0172]
University-Grad							-0.1872*** [0.0184]	0.3990*** [0.0191]
Other/unknown							0.0171 [0.1690]	-0.0391 [0.1656]
Family Income Level (\$50 000 to \$75 000)								
Extremely low (\$0-\$5 000)					0.0045 [0.0511]	-0.0215 [0.0541]	0.0077 [0.0524]	-0.0107 [0.0546]
\$50 00 to \$25 000					-0.0174 [0.0218]	-0.1438*** [0.0217]	-0.0221 [0.0217]	-0.0434 [0.0228]
\$25 000 to \$50 000					0.0119 [0.0140]	-0.0978*** [0.0143]	0.0026 [0.0141]	-0.0429*** [0.0144]
\$75 000 to \$100 000					-0.0359** [0.0144]	0.0960*** [0.0159]	-0.0133 [0.0144]	0.0368** [0.0154]
\$100 000 and up					-0.0669*** [0.0166]	0.2036*** [0.0183]	-0.0096 [0.0172]	0.0824*** [0.0188]
Immigrant Generation (Non-Immigrant)								
1st Generation	-0.0492 [0.0260]	0.1928*** [0.0276]	-0.0313 [0.0295]	0.0945*** [0.0318]	-0.0411 [0.0292]	0.1327*** [0.0320]	-0.0069 [0.0303]	0.0411 [0.0322]
2nd Generation	-0.0470*** [0.0161]	0.1663*** [0.0170]	-0.0343** [0.0165]	0.1096*** [0.0176]	-0.0352** [0.0164]	0.1114*** [0.0176]	-0.0248 [0.0162]	0.0843*** [0.0171]
Generation unknown	-0.0087 [0.0359]	-0.0822** [0.0327]	0.0019 [0.0414]	-0.0584 [0.0447]	0.0006 [0.0416]	-0.0271 [0.0450]	0.0179 [0.0418]	-0.0628 [0.0450]
Observations	16825		16825		16825		16825	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 4: MNL PSE Access Models, Detailed Immigrant Indicators

	Immigrant Variables Only		Basic Controls		Family Income		Parental Education	
	College	University	College	University	College	University	College	University
Female (Male)	-0.0277***	0.1593***	-0.0292***	0.1644***	-0.0292***	0.1644***	-0.0296***	0.1659***
	[0.0102]	[0.0109]	[0.0102]	[0.0107]	[0.0099]	[0.0103]		
HS location - Urban (Rural)			-0.0499***	0.1175***	-0.0421***	0.0811***	-0.0313***	0.0488***
			[0.0117]	[0.0122]	[0.0118]	[0.0124]	[0.0116]	[0.0119]
HS Province (ON)								
Newfoundland and Labrador			-0.1009***	0.0768***	-0.1194***	0.1395***	-0.1125***	0.1233***
			[0.0191]	[0.0207]	[0.0188]	[0.0204]	[0.0187]	[0.0202]
Prince Edward Island			-0.1756***	0.1682***	-0.1935***	0.2234***	-0.1789***	0.1867***
			[0.0177]	[0.0197]	[0.0170]	[0.0186]	[0.0172]	[0.0185]
Nova Scotia			-0.1634***	0.1489***	-0.1771***	0.1944***	-0.1624***	0.1548***
			[0.0169]	[0.0187]	[0.0165]	[0.0180]	[0.0165]	[0.0177]
New Brunswick			-0.1604***	0.1132***	-0.1752***	0.1637***	-0.1680***	0.1428***
			[0.0166]	[0.0186]	[0.0162]	[0.0181]	[0.0160]	[0.0175]
Quebec			0.0211	-0.1140***	0.0079	-0.0730***	0.0121	-0.0696***
			[0.0175]	[0.0167]	[0.0175]	[0.0168]	[0.0175]	[0.0163]
Manitoba			-0.1838***	0.0687***	-0.1907***	0.0970***	-0.1862***	0.0907***
			[0.0163]	[0.0191]	[0.0160]	[0.0185]	[0.0158]	[0.0177]
Saskatchewan			-0.1523***	0.0553***	-0.1639***	0.1008***	-0.1618***	0.0837***
			[0.0164]	[0.0183]	[0.0162]	[0.0182]	[0.0160]	[0.0176]
Alberta			-0.0933***	-0.0379**	-0.0941***	-0.0355**	-0.0981***	-0.0297*
			[0.0168]	[0.0173]	[0.0167]	[0.0170]	[0.0162]	[0.0161]
British Columbia			-0.0825***	-0.0353**	-0.0879***	-0.0161	-0.0851***	-0.0310*
			[0.0171]	[0.0176]	[0.0170]	[0.0176]	[0.0166]	[0.0168]
Linguistic Minority (Speaks Provincial Language)								
French outside QC			0.029	-0.0069	0.0279	0.0013	0.031	0.0041
			[0.0236]	[0.0261]	[0.0235]	[0.0261]	[0.0230]	[0.0262]
Other outside QC			-0.0032	0.0654*	-0.0104	0.0833**	-0.0031	0.0826**
			[0.0311]	[0.0340]	[0.0309]	[0.0341]	[0.0310]	[0.0345]
English in QC			0.0116	0.1049***	0.0214	0.0780**	0.041	0.0378
			[0.0279]	[0.0328]	[0.0278]	[0.0321]	[0.0268]	[0.0307]
Other in QC			0.0434	0.0295	0.0341	0.0498	0.0351	0.0495
			[0.0469]	[0.0548]	[0.0464]	[0.0540]	[0.0448]	[0.0526]
Family Type (Two Parents)								
Mother only			0.0101	-0.0968***	-0.0117	0.0295	-0.0025	0.0073
			[0.0166]	[0.0174]	[0.0173]	[0.0194]	[0.0174]	[0.0189]
Father only			0.0525	-0.1079***	0.0424	-0.0417	0.0595*	-0.0517
			[0.0348]	[0.0353]	[0.0345]	[0.0369]	[0.0346]	[0.0347]
Other			0.0243	-0.1362**	0.0197	-0.0748	-0.001	-0.0142
			[0.0577]	[0.0578]	[0.0569]	[0.0618]	[0.0538]	[0.0677]
Parent's Education (HS completed)								
Less than HS							-0.0064	-0.1425***
							[0.0208]	[0.0225]
Some PSE							0.0108	0.0442*
							[0.0211]	[0.0228]
Trade/College							-0.0052	0.0733***
							[0.0130]	[0.0138]
University-below BA degree							-0.0698***	0.2054***
							[0.0230]	[0.0254]
University-BA							-0.1005***	0.2824***
							[0.0153]	[0.0171]
University-Grad							-0.1873***	0.3992***
							[0.0182]	[0.0190]
Other/unknown							0.0178	-0.0532
							[0.1682]	[0.1672]
Family Income Level (\$50 000 to \$75 000)								
Extremely low (\$0-\$5 000)					0.0149	-0.0429	0.0183	-0.0307
					[0.0516]	[0.0546]	[0.0534]	[0.0551]
\$5 000 to \$25 000					-0.0111	-0.1567***	-0.0156	-0.0538**
					[0.0219]	[0.0217]	[0.0218]	[0.0229]
\$25 000 to \$50 000					0.0149	-0.1039***	0.0048	-0.0484***
					[0.0140]	[0.0143]	[0.0141]	[0.0144]
\$75 000 to \$100 000					-0.0351**	0.0931***	-0.0127	0.0348**
					[0.0143]	[0.0158]	[0.0142]	[0.0153]
\$100 000 and up					-0.0672***	0.2037***	-0.0103	0.0840***
					[0.0165]	[0.0180]	[0.0170]	[0.0185]

cont...

Table 4: MNL PSE Access Models, Detailed Immigrant Indicators - cont.

	Immigrant Variables Only		Basic Controls		Family Income		Parental Education	
	College	University	College	University	College	University	College	University
<b>Generation &amp; Origin (Non-Immigrant)</b>								
<b>1st Generation, origin of the student</b>								
Americas (Except USA)	0.0518	-0.1490***	0.0164	-0.1826***	0.0221	-0.1285**	0.0125	-0.1345**
	[0.0695]	[0.0513]	[0.0608]	[0.0540]	[0.0637]	[0.0653]	[0.0614]	[0.0599]
Africa	-0.0544	0.2691*	-0.0347	0.2212	-0.0581	0.2591**	-0.0107	0.1727
	[0.1252]	[0.1519]	[0.1113]	[0.1377]	[0.1063]	[0.1306]	[0.1056]	[0.1387]
China	-0.2383***	0.5061***	-0.1778***	0.4386***	-0.1988***	0.4661***	-0.1859***	0.4468***
	[0.0649]	[0.0662]	[0.0688]	[0.0719]	[0.0583]	[0.0601]	[0.0617]	[0.0666]
Other East & South-east Asia	0.1194*	0.0361	0.1235*	-0.0098	0.0936	0.0558	0.1385*	-0.0526
	[0.0642]	[0.0775]	[0.0668]	[0.0769]	[0.0647]	[0.0828]	[0.0709]	[0.0754]
Other Asia	-0.0943	0.3094***	-0.0631	0.2223***	-0.0884	0.2784***	-0.011	0.1448*
	[0.0709]	[0.0780]	[0.0661]	[0.0730]	[0.0625]	[0.0709]	[0.0687]	[0.0837]
Western or Northern Europe	-0.0368	0.0893	-0.0313	0.057	-0.0302	0.0744	0.0043	0.0214
	[0.1096]	[0.1038]	[0.0998]	[0.0853]	[0.0996]	[0.0782]	[0.1093]	[0.0784]
Southern or Eastern Europe	0.0081	0.1523*	0.0214	0.0667	0.0268	0.0785	0.0635	-0.0182
	[0.0623]	[0.0800]	[0.0656]	[0.0739]	[0.0652]	[0.0774]	[0.0642]	[0.0705]
Anglosphere	-0.103	0.0993	-0.0869	0.0608	-0.0922	0.0917	-0.0829	0.0291
	[0.0725]	[0.0813]	[0.0674]	[0.0749]	[0.0653]	[0.0759]	[0.0644]	[0.0667]
Others/unknown	0.1094	0.0403	0.1324	-0.0993	0.1331	-0.086	0.1416	-0.0889
	[0.1967]	[0.2396]	[0.1926]	[0.1940]	[0.1927]	[0.1863]	[0.1597]	[0.1732]
<b>2nd Generation, mixture of the parent(s)' origin</b>								
Mother Canadian Father imm.	-0.0589**	0.1915***	-0.0425	0.1462***	-0.0406	0.1409***	-0.0273	0.1088***
	[0.0295]	[0.0312]	[0.0275]	[0.0293]	[0.0273]	[0.0296]	[0.0267]	[0.0278]
Father Canadian Mother imm.	-0.0493	0.1326***	-0.0371	0.0943***	-0.0321	0.0811**	-0.0206	0.0378
	[0.0332]	[0.0352]	[0.0310]	[0.0337]	[0.0309]	[0.0339]	[0.0308]	[0.0310]
Both parents imm. but different origin	-0.1740***	0.2178***	-0.1506***	0.1409***	-0.1492***	0.1519***	-0.1362***	0.0914*
	[0.0442]	[0.0543]	[0.0402]	[0.0525]	[0.0411]	[0.0505]	[0.0434]	[0.0489]
<b>Both parents immigrants from the same origin</b>								
Americas (Except USA)	0.1052	-0.0203	0.0809	-0.0747	0.0812	-0.0622	0.0756	-0.0435
	[0.0694]	[0.0730]	[0.0653]	[0.0646]	[0.0652]	[0.0657]	[0.0635]	[0.0659]
Africa	-0.1837	0.4473***	-0.1382	0.3924***	-0.1341	0.3863***	-0.1089	0.3487**
	[0.1232]	[0.1335]	[0.1126]	[0.1272]	[0.1100]	[0.1255]	[0.1143]	[0.1408]
China	-0.2092***	0.4375***	-0.1495**	0.3503***	-0.1529**	0.3615***	-0.1494**	0.3546***
	[0.0713]	[0.0733]	[0.0749]	[0.0780]	[0.0734]	[0.0767]	[0.0732]	[0.0799]
Other East & South-east Asia	-0.0366	0.1964***	0.0023	0.1155*	-0.0112	0.1527**	-0.0138	0.1497**
	[0.0685]	[0.0668]	[0.0656]	[0.0642]	[0.0633]	[0.0644]	[0.0604]	[0.0613]
Other Asia	-0.0582	0.2991***	-0.0148	0.2354**	-0.0366	0.2652***	0.0036	0.2124**
	[0.0719]	[0.0977]	[0.0665]	[0.0929]	[0.0641]	[0.0887]	[0.0605]	[0.0927]
Western or Northern Europe	0.0215	0.1918	0.0374	0.1577	0.0281	0.1716	0.1007	0.0689
	[0.1284]	[0.1411]	[0.1142]	[0.1252]	[0.1091]	[0.1234]	[0.1060]	[0.1251]
Southern or Eastern Europe	-0.0118	0.0548	-0.0254	-0.0394	-0.0321	-0.0018	-0.0315	0.0474
	[0.0497]	[0.0519]	[0.0486]	[0.0510]	[0.0481]	[0.0513]	[0.0470]	[0.0550]
Anglosphere	0.0621	0.0402	0.0684	-0.0065	0.0697	-0.0253	0.0673	-0.0378
	[0.0734]	[0.0761]	[0.0678]	[0.0696]	[0.0679]	[0.0691]	[0.0665]	[0.0637]
Other / Unknown / Single parent	-0.0046	0.1241***	-0.0195	0.1385***	-0.0225	0.1423***	-0.0099	0.1142**
	[0.0433]	[0.0474]	[0.0411]	[0.0453]	[0.0406]	[0.0456]	[0.0396]	[0.0476]
<b>Generation unknown</b>								
	-0.0086	-0.0823**	-0.0007	-0.0438	-0.0031	-0.0106	0.0153	-0.0465
	[0.0359]	[0.0327]	[0.0415]	[0.0452]	[0.0414]	[0.0454]	[0.0417]	[0.0460]
<b>Observations</b>	16825		16825		16825		16825	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 5: MNL PSE Access Models, Aggregate Immigrant Indicators with Grades and Scales

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>Female (Male)</b>	-0.0290*** [0.0100]	0.1662*** [0.0103]	-0.0092 [0.0101]	0.0794*** [0.0103]	-0.0179* [0.0106]	0.0818*** [0.0108]	-0.0058 [0.0104]	0.0526*** [0.0105]
<b>HS location - Urban (Rural)</b>	-0.0330*** [0.0116]	0.0534*** [0.0120]	-0.0306*** [0.0116]	0.0631*** [0.0116]	-0.0267** [0.0116]	0.0400*** [0.0120]	-0.0290** [0.0116]	0.0511*** [0.0115]
<b>HS Province (ON)</b>								
<b>Newfoundland and Labrador</b>	-0.1149*** [0.0186]	0.1297*** [0.0202]	-0.1220*** [0.0177]	0.1418*** [0.0200]	-0.1227*** [0.0183]	0.1302*** [0.0203]	-0.1207*** [0.0177]	0.1326*** [0.0197]
<b>Prince Edward Island</b>	-0.1815*** [0.0171]	0.1927*** [0.0185]	-0.1462*** [0.0171]	0.1181*** [0.0185]	-0.1973*** [0.0156]	0.2272*** [0.0175]	-0.1654*** [0.0162]	0.1674*** [0.0179]
<b>Nova Scotia</b>	-0.1645*** [0.0165]	0.1609*** [0.0177]	-0.1311*** [0.0160]	0.1082*** [0.0175]	-0.1829*** [0.0153]	0.1988*** [0.0168]	-0.1482*** [0.0154]	0.1445*** [0.0170]
<b>New Brunswick</b>	-0.1695*** [0.0159]	0.1477*** [0.0175]	-0.1275*** [0.0160]	0.0963*** [0.0173]	-0.1755*** [0.0151]	0.1904*** [0.0172]	-0.1440*** [0.0153]	0.1357*** [0.0167]
<b>Quebec</b>	0.0113 [0.0175]	-0.0665*** [0.0164]	0.0318* [0.0186]	-0.0943*** [0.0172]	0.0153 [0.0184]	-0.0672*** [0.0172]	0.0224 [0.0190]	-0.0838*** [0.0168]
<b>Manitoba</b>	-0.1860*** [0.0158]	0.0904*** [0.0179]	-0.1638*** [0.0157]	0.0638*** [0.0177]	-0.1885*** [0.0155]	0.1105*** [0.0172]	-0.1699*** [0.0155]	0.0831*** [0.0172]
<b>Saskatchewan</b>	-0.1646*** [0.0159]	0.0899*** [0.0177]	-0.1321*** [0.0159]	0.0417** [0.0173]	-0.1733*** [0.0155]	0.1150*** [0.0167]	-0.1453*** [0.0156]	0.0713*** [0.0166]
<b>Alberta</b>	-0.1005*** [0.0162]	-0.0248 [0.0162]	-0.1184*** [0.0155]	0.0425*** [0.0160]	-0.0838*** [0.0163]	-0.0547*** [0.0161]	-0.1070*** [0.0156]	0.0062 [0.0158]
<b>British Columbia</b>	-0.0983*** [0.0167]	-0.0066 [0.0171]	-0.0883*** [0.0163]	-0.0132 [0.0171]	-0.0973*** [0.0164]	-0.0035 [0.0170]	-0.0887*** [0.0160]	-0.0106 [0.0167]
<b>Linguistic Minority (Speaks Provincial Language)</b>								
<b>French outside QC</b>	0.0277 [0.0231]	0.0093 [0.0260]	-0.0051 [0.0212]	0.0309 [0.0208]	-0.0257 [0.0208]	0.0828*** [0.0246]	-0.0214 [0.0206]	0.0701*** [0.0204]
<b>Other outside QC</b>	-0.0091 [0.0264]	0.1434*** [0.0307]	-0.0155 [0.0243]	0.1035*** [0.0276]	-0.0150 [0.0261]	0.1102*** [0.0294]	-0.0171 [0.0244]	0.1024*** [0.0273]
<b>English in QC</b>	0.0371 [0.0266]	0.0420 [0.0307]	0.0256 [0.0245]	0.0664** [0.0298]	0.0378 [0.0257]	0.0631* [0.0334]	0.0331 [0.0249]	0.0624** [0.0306]
<b>Other in QC</b>	0.0445 [0.0423]	0.0563 [0.0514]	0.0170 [0.0426]	0.0555 [0.0473]	-0.0067 [0.0401]	0.1080** [0.0476]	0.0060 [0.0399]	0.0789* [0.0447]
<b>Family Type (Two Parents)</b>								
<b>Mother only</b>	0.0028 [0.0169]	0.0042 [0.0185]	-0.0088 [0.0166]	0.0050 [0.0173]	-0.0058 [0.0168]	0.0028 [0.0175]	-0.0064 [0.0166]	0.0022 [0.0168]
<b>Father only</b>	0.0615* [0.0344]	-0.0520 [0.0342]	0.0071 [0.0324]	0.0030 [0.0323]	0.0170 [0.0321]	-0.0298 [0.0317]	0.0018 [0.0320]	-0.0020 [0.0312]
<b>Other</b>	-0.0029 [0.0530]	0.0010 [0.0666]	-0.0285 [0.0503]	0.0169 [0.0554]	-0.0448 [0.0486]	0.0405 [0.0608]	-0.0376 [0.0480]	0.0326 [0.0530]
<b>Parent's Education (HS completed)</b>								
<b>Less than HS</b>	-0.0071 [0.0208]	-0.1450*** [0.0225]	-0.0008 [0.0215]	-0.0821*** [0.0223]	0.0130 [0.0227]	-0.0924*** [0.0231]	0.0106 [0.0223]	-0.0756*** [0.0220]
<b>Some PSE</b>	0.0140 [0.0213]	0.0353 [0.0230]	0.0167 [0.0209]	0.0085 [0.0218]	0.0274 [0.0216]	-0.0096 [0.0220]	0.0207 [0.0209]	-0.0042 [0.0207]
<b>Trade/College</b>	-0.0021 [0.0131]	0.0683*** [0.0138]	0.0076 [0.0133]	0.0345** [0.0139]	0.0153 [0.0133]	0.0240* [0.0137]	0.0153 [0.0131]	0.0197 [0.0133]
<b>University-below BA degree</b>	-0.0697*** [0.0232]	0.2046*** [0.0256]	-0.0545** [0.0223]	0.1392*** [0.0241]	-0.0373 [0.0237]	0.1164*** [0.0261]	-0.0352 [0.0228]	0.1059*** [0.0248]
<b>University-BA</b>	-0.0963*** [0.0155]	0.2784*** [0.0172]	-0.0486*** [0.0157]	0.1560*** [0.0175]	-0.0457*** [0.0159]	0.1505*** [0.0177]	-0.0337** [0.0156]	0.1230*** [0.0170]
<b>University-Grad</b>	-0.1872*** [0.0184]	0.3990*** [0.0191]	-0.1193*** [0.0205]	0.2428*** [0.0224]	-0.1228*** [0.0219]	0.2422*** [0.0232]	-0.1008*** [0.0211]	0.2031*** [0.0231]
<b>Other/unknown</b>	0.0171 [0.1690]	-0.0391 [0.1656]	-0.0327 [0.1316]	0.0347 [0.1071]	-0.0398 [0.1110]	0.0741 [0.0910]	-0.0544 [0.1028]	0.0862 [0.0764]
<b>Family Income Level (\$50 000 to \$75 000)</b>								
<b>Extremely low (\$0-\$5 000)</b>	0.0077 [0.0524]	-0.0107 [0.0546]	-0.0230 [0.0467]	0.0352 [0.0620]	-0.0472 [0.0488]	0.0889 [0.0554]	-0.0365 [0.0474]	0.0695 [0.0594]
<b>\$5 000 to \$25 000</b>	-0.0221 [0.0217]	-0.0434* [0.0228]	-0.0261 [0.0228]	-0.0039 [0.0238]	-0.0287 [0.0223]	0.0031 [0.0238]	-0.0309 [0.0224]	0.0091 [0.0231]
<b>\$25 000 to \$50 000</b>	0.0026 [0.0141]	-0.0429*** [0.0144]	-0.0085 [0.0140]	-0.0085 [0.0139]	-0.0082 [0.0142]	-0.0082 [0.0141]	-0.0126 [0.0139]	0.0021 [0.0135]
<b>\$75 000 to \$10 0000</b>	-0.0133 [0.0144]	0.0368** [0.0154]	-0.0294** [0.0136]	0.0486*** [0.0142]	-0.0234* [0.0139]	0.0390*** [0.0146]	-0.0285** [0.0134]	0.0451*** [0.0139]
<b>\$100 000 and up</b>	-0.0096 [0.0172]	0.0824*** [0.0188]	-0.0198 [0.0162]	0.0788*** [0.0180]	-0.0152 [0.0163]	0.0664*** [0.0188]	-0.0169 [0.0159]	0.0688*** [0.0180]

cont...

Table 5: MNL PSE Access Models, Aggregate Immigrant Indicators with Grades and Scales - cont.

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>Immigrant Generation (Not Immigrant)</b>								
1st Generation	-0.0069 [0.0303]	0.0411 [0.0322]	0.0036 [0.0294]	0.0294 [0.0306]	-0.0080 [0.0310]	0.0556* [0.0332]	0.0016 [0.0296]	0.0374 [0.0314]
2nd Generation	-0.0248 [0.0162]	0.0843*** [0.0171]	-0.0256* [0.0151]	0.0783*** [0.0160]	-0.0246 [0.0156]	0.0812*** [0.0170]	-0.0218 [0.0150]	0.0727*** [0.0160]
Generation unknown	0.0179 [0.0418]	-0.0628 [0.0450]	-0.0003 [0.0433]	-0.0040 [0.0435]	0.0207 [0.0445]	-0.0333 [0.0470]	0.0014 [0.0431]	-0.0065 [0.0429]
<b>High School Grades</b>								
Overall grade			-0.0039*** [0.0008]	0.0144*** [0.0008]			-0.0034*** [0.0008]	0.0110*** [0.0008]
Math grade			-0.0013*** [0.0005]	0.0010* [0.0005]			-0.0013*** [0.0005]	0.0009* [0.0005]
Main language grade			-0.0022*** [0.0006]	0.0054*** [0.0006]			-0.0018*** [0.0006]	0.0036*** [0.0006]
Science grade			-0.0023*** [0.0004]	0.0070*** [0.0004]			-0.0016*** [0.0004]	0.0040*** [0.0004]
<b>High School Engagement</b>								
Academic identification					-0.0004 [0.0061]	0.0162** [0.0064]	0.0027 [0.0058]	0.0054 [0.0059]
Academic participation					-0.0261*** [0.0062]	0.1046*** [0.0068]	-0.0201*** [0.0060]	0.0697*** [0.0061]
Social engagement					-0.0048 [0.0054]	0.0119** [0.0055]	-0.0061 [0.0053]	0.0111** [0.0053]
<b>Self-perception</b>								
Self-esteem					0.0023 [0.0056]	0.0028 [0.0057]	0.0051 [0.0053]	-0.0040 [0.0053]
Self-efficacy					-0.0101** [0.0044]	0.0244*** [0.0042]	-0.0033 [0.0039]	0.0062* [0.0037]
Self-mastery					0.0008 [0.0054]	0.0044 [0.0054]	-0.0020 [0.0051]	0.0093* [0.0051]
<b>Social Support</b>					0.0070* [0.0042]	-0.0192*** [0.0047]	0.0057 [0.0041]	-0.0124*** [0.0044]
<b>Parental Behaviour</b>								
Monitoring behaviour					0.0032 [0.0026]	0.0061** [0.0030]	0.0016 [0.0024]	0.0068** [0.0028]
Nurturance behaviour					-0.0038 [0.0040]	0.0101*** [0.0038]	-0.0029 [0.0047]	0.0038 [0.0038]
Inconsistent discipline					-0.0031 [0.0037]	-0.0111*** [0.0034]	-0.0051 [0.0045]	-0.0042 [0.0034]
<b>Reading Ability</b>					-0.0006*** [0.0001]	0.0021*** [0.0001]	-0.0004*** [0.0001]	0.0013*** [0.0001]
<b>Observations</b>	16825		15204		15114		15114	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 6: MNL PSE Access Models, Detailed Immigrant Indicators with Grades and Scales**

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>Female (Male)</b>	-0.0296*** [0.0099]	0.1659*** [0.0103]	-0.0103 [0.0100]	0.0785*** [0.0102]	-0.0195* [0.0105]	0.0820*** [0.0108]	-0.0071 [0.0104]	0.0515*** [0.0105]
<b>HS location - Urban (Rural)</b>	-0.0313*** [0.0116]	0.0488*** [0.0119]	-0.0283** [0.0116]	0.0584*** [0.0115]	-0.0238** [0.0116]	0.0346*** [0.0118]	-0.0264** [0.0116]	0.0459*** [0.0114]
<b>HS Province (ON)</b>								
<b>Newfoundland and Labrador</b>	-0.1125*** [0.0187]	0.1233*** [0.0202]	-0.1205*** [0.0178]	0.1376*** [0.0200]	-0.1209*** [0.0183]	0.1254*** [0.0203]	-0.1189*** [0.0178]	0.1282*** [0.0197]
<b>Prince Edward Island</b>	-0.1789*** [0.0172]	0.1867*** [0.0185]	-0.1450*** [0.0171]	0.1148*** [0.0185]	-0.1953*** [0.0157]	0.2228*** [0.0177]	-0.1644*** [0.0179]	0.1649*** [0.0179]
<b>Nova Scotia</b>	-0.1624*** [0.0165]	0.1548*** [0.0177]	-0.1303*** [0.0160]	0.1046*** [0.0175]	-0.1817*** [0.0154]	0.1943*** [0.0169]	-0.1477*** [0.0155]	0.1412*** [0.0170]
<b>New Brunswick</b>	-0.1680*** [0.0160]	0.1428*** [0.0175]	-0.1271*** [0.0159]	0.0927*** [0.0173]	-0.1739*** [0.0152]	0.1856*** [0.0173]	-0.1435*** [0.0157]	0.1326*** [0.0167]
<b>Quebec</b>	0.0121 [0.0175]	-0.0696*** [0.0163]	0.0301 [0.0187]	-0.0947*** [0.0171]	0.0158 [0.0186]	-0.0712*** [0.0172]	0.0216 [0.0192]	-0.0858*** [0.0168]
<b>Manitoba</b>	-0.1862*** [0.0158]	0.0907*** [0.0177]	-0.1649*** [0.0156]	0.0648*** [0.0176]	-0.1880*** [0.0155]	0.1088*** [0.0171]	-0.1699*** [0.0154]	0.0827*** [0.0171]
<b>Saskatchewan</b>	-0.1618*** [0.0160]	0.0837*** [0.0176]	-0.1303*** [0.0160]	0.0379** [0.0173]	-0.1711*** [0.0155]	0.1096*** [0.0168]	-0.1438*** [0.0157]	0.0678*** [0.0166]
<b>Alberta</b>	-0.0981*** [0.0162]	-0.0297* [0.0161]	-0.1174*** [0.0155]	0.0399** [0.0159]	-0.0823*** [0.0163]	-0.0585*** [0.0159]	-0.1056*** [0.0156]	0.0026 [0.0157]
<b>British Columbia</b>	-0.0851*** [0.0166]	-0.0310* [0.0168]	-0.0818*** [0.0163]	-0.0286* [0.0171]	-0.0878*** [0.0163]	-0.0235 [0.0169]	-0.0823*** [0.0160]	-0.0267 [0.0167]
<b>Linguistic Minority (Speaks Provincial Language)</b>								
<b>French outside QC</b>	0.0310 [0.0230]	0.0041 [0.0262]	-0.0020 [0.0205]	0.0295 [0.0208]	-0.0232 [0.0205]	0.0808*** [0.0246]	-0.0185 [0.0198]	0.0694*** [0.0202]
<b>Other outside QC</b>	-0.0031 [0.0310]	0.0826** [0.0345]	-0.0223 [0.0295]	0.0739** [0.0310]	-0.0156 [0.0304]	0.0764** [0.0318]	-0.0257 [0.0286]	0.0797*** [0.0298]
<b>English in QC</b>	0.0410 [0.0268]	0.0378 [0.0307]	0.0291 [0.0247]	0.0632** [0.0301]	0.0412 [0.0260]	0.0607* [0.0339]	0.0366 [0.0250]	0.0603* [0.0313]
<b>Other in QC</b>	0.0351 [0.0448]	0.0495 [0.0526]	0.0123 [0.0446]	0.0573 [0.0478]	-0.0129 [0.0415]	0.1139** [0.0491]	0.0024 [0.0415]	0.0833* [0.0469]
<b>Family Type (Two Parents)</b>								
<b>Mother only</b>	-0.0025 [0.0174]	0.0073 [0.0189]	-0.0087 [0.0176]	0.0003 [0.0179]	-0.0082 [0.0175]	-0.0029 [0.0183]	-0.0072 [0.0176]	-0.0048 [0.0176]
<b>Father only</b>	0.0595* [0.0346]	-0.0517 [0.0347]	-0.0057 [0.0327]	0.0025 [0.0327]	0.0112 [0.0317]	-0.0354 [0.0315]	-0.0030 [0.0319]	-0.0083 [0.0310]
<b>Other</b>	-0.0010 [0.0538]	-0.0142 [0.0677]	-0.0269 [0.0502]	-0.0058 [0.0532]	-0.0387 [0.0490]	0.0129 [0.0603]	-0.0369 [0.0474]	0.0102 [0.0509]
<b>Parent's Education (HS completed)</b>								
<b>Less than HS</b>	-0.0064 [0.0208]	-0.1425*** [0.0225]	-0.0009 [0.0215]	-0.0790*** [0.0221]	0.0142 [0.0227]	-0.0898*** [0.0227]	0.0107 [0.0224]	-0.0721*** [0.0217]
<b>Some PSE</b>	0.0108 [0.0211]	0.0442* [0.0228]	0.0124 [0.0208]	0.0169 [0.0217]	0.0241 [0.0214]	-0.0008 [0.0219]	0.0170 [0.0208]	0.0042 [0.0207]
<b>Trade/College</b>	-0.0052 [0.0130]	0.0733*** [0.0138]	0.0030 [0.0132]	0.0396*** [0.0139]	0.0116 [0.0132]	0.0280** [0.0137]	0.0107 [0.0131]	0.0245* [0.0133]
<b>University-below BA degree</b>	-0.0698*** [0.0230]	0.2054*** [0.0254]	-0.0548** [0.0221]	0.1401*** [0.0238]	-0.0376 [0.0232]	0.1184*** [0.0260]	-0.0353 [0.0225]	0.1076*** [0.0246]
<b>University-BA</b>	-0.1005*** [0.0153]	0.2824*** [0.0171]	-0.0525*** [0.0156]	0.1596*** [0.0175]	-0.0501*** [0.0158]	0.1529*** [0.0177]	-0.0381** [0.0155]	0.1263*** [0.0171]
<b>University-Grad</b>	-0.1873*** [0.0182]	0.3992*** [0.0190]	-0.1199*** [0.0202]	0.2442*** [0.0224]	-0.1222*** [0.0214]	0.2425*** [0.0230]	-0.1013*** [0.0207]	0.2045*** [0.0230]
<b>Other/unknown</b>	0.0178 [0.1682]	-0.0532 [0.1672]	-0.0246 [0.1369]	0.0191 [0.1160]	-0.0326 [0.1137]	0.0657 [0.0933]	-0.0457 [0.1065]	0.0763 [0.0814]
<b>Family Income Level (\$50 000 to \$75 000)</b>								
<b>Extremely low (\$0-\$5 000)</b>	0.0183 [0.0534]	-0.0307 [0.0551]	-0.0134 [0.0470]	0.0172 [0.0616]	-0.0278 [0.0504]	0.0601 [0.0593]	-0.0228 [0.0487]	0.0487 [0.0615]
<b>\$5 000 to \$25 000</b>	-0.0156 [0.0218]	-0.0538** [0.0229]	-0.0190 [0.0231]	-0.0150 [0.0239]	-0.0200 [0.0225]	-0.0107 [0.0236]	-0.0231 [0.0227]	-0.0026 [0.0231]
<b>\$25 000 to \$50 000</b>	0.0048 [0.0141]	-0.0484*** [0.0144]	-0.0064 [0.0141]	-0.0140 [0.0139]	-0.0054 [0.0143]	-0.0155 [0.0141]	-0.0099 [0.0140]	-0.0044 [0.0136]
<b>\$75 000 to \$100 000</b>	-0.0127 [0.0142]	0.0348** [0.0153]	-0.0279** [0.0135]	0.0461*** [0.0142]	-0.0230* [0.0137]	0.0373** [0.0145]	-0.0274** [0.0145]	0.0430*** [0.0138]
<b>\$100 000 and up</b>	-0.0103 [0.0170]	0.0840*** [0.0185]	-0.0203 [0.0161]	0.0802*** [0.0179]	-0.0174 [0.0162]	0.0691*** [0.0186]	-0.0180 [0.0158]	0.0705*** [0.0178]
<b>Generation and Origin (Not an Immigrant)</b>								
<b>1st Generation, origin of the student</b>								
<b>Americas (Except USA)</b>	0.0125 [0.0614]	-0.1345** [0.0599]	0.0344 [0.0664]	-0.1233** [0.0586]	0.0312 [0.0688]	-0.1255* [0.0675]	0.0288 [0.0645]	-0.1064* [0.0611]
<b>Africa</b>	-0.0107 [0.1056]	0.1727 [0.1387]	0.0719 [0.1125]	0.1186 [0.1646]	0.0260 [0.0920]	0.1765 [0.1861]	0.0564 [0.1153]	0.1380 [0.1776]
<b>China</b>	-0.1859*** [0.0617]	0.4468*** [0.0666]	-0.1459*** [0.0531]	0.3597*** [0.0654]	-0.1936*** [0.0463]	0.4181*** [0.0538]	-0.1565*** [0.0470]	0.3736*** [0.0634]
<b>Other East &amp; South-east Asia</b>	0.1385* [0.0709]	-0.0526 [0.0754]	0.1300 [0.0840]	-0.0464 [0.0718]	0.1023 [0.0791]	0.0012 [0.0829]	0.1136 [0.0823]	-0.0241 [0.0732]
<b>Other Asia</b>	-0.0110 [0.0687]	0.1448* [0.0837]	-0.0249 [0.0659]	0.1102 [0.0725]	-0.0447 [0.0678]	0.1392* [0.0788]	-0.0349 [0.0635]	0.1209* [0.0720]

cont...

Table 6: MNL PSE Access Models, Detailed Immigrant Indicators with Grades and Scales - cont.

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>1st Generation - cont.</b>								
Western or Northern Europe	0.0043 [0.1093]	0.0214 [0.0784]	0.0325 [0.1016]	-0.0156 [0.0929]	0.0485 [0.1145]	-0.0129 [0.1067]	0.0483 [0.1065]	-0.0184 [0.1088]
Southern or Eastern Europe	0.0635 [0.0642]	-0.0182 [0.0705]	0.0822 [0.0668]	-0.0440 [0.0705]	0.0741 [0.0666]	-0.0621 [0.0730]	0.0862 [0.0687]	-0.0651 [0.0698]
Anglosphere	-0.0829 [0.0644]	0.0291 [0.0667]	-0.0629 [0.0700]	0.0384 [0.0538]	-0.0790 [0.0673]	0.0567 [0.0622]	-0.0626 [0.0687]	0.0299 [0.0572]
Others/unknown	0.1416 [0.1597]	-0.0889 [0.1732]	0.1026 [0.1260]	-0.0095 [0.2172]	0.2068 [0.1893]	-0.1264 [0.2393]	0.1722 [0.1972]	-0.0794 [0.2468]
<b>2nd Generation, mixture of the parent(s)' origin</b>								
Mother Canadian Father imm.	-0.0273 [0.0267]	0.1088*** [0.0278]	-0.0308 [0.0241]	0.0894*** [0.0244]	-0.0334 [0.0256]	0.0976*** [0.0270]	-0.0303 [0.0240]	0.0842*** [0.0249]
Father Canadian Mother imm.	-0.0206 [0.0308]	0.0378 [0.0310]	-0.0166 [0.0297]	0.0203 [0.0276]	-0.0169 [0.0305]	0.0235 [0.0300]	-0.0148 [0.0295]	0.0146 [0.0275]
Both parents imm. but different origin	-0.1362*** [0.0434]	0.0914* [0.0489]	-0.1227*** [0.0434]	0.0892** [0.0427]	-0.1265*** [0.0449]	0.0755 [0.0535]	-0.1241*** [0.0443]	0.0702 [0.0461]
<b>Both parents immigrants from the same origin</b>								
Americas (Except USA)	0.0756 [0.0635]	-0.0435 [0.0659]	0.0641 [0.0589]	0.0594 [0.0820]	0.0926 [0.0678]	0.0112 [0.0858]	0.0616 [0.0601]	0.0488 [0.0765]
Africa	-0.1089 [0.1143]	0.3487** [0.1408]	-0.0378 [0.0844]	0.2137 [0.1408]	-0.0687 [0.0847]	0.2683* [0.1581]	-0.0446 [0.0754]	0.2318 [0.1510]
China	-0.1494** [0.0732]	0.3546*** [0.0799]	-0.1215* [0.0685]	0.2707*** [0.0927]	-0.1302* [0.0779]	0.2711*** [0.0823]	-0.1116 [0.0762]	0.2489** [0.0979]
Other East & South-east Asia	-0.0138 [0.0604]	0.1497** [0.0613]	-0.0003 [0.0534]	0.1201** [0.0527]	-0.0186 [0.0527]	0.1306*** [0.0499]	-0.0022 [0.0502]	0.1144** [0.0492]
Other Asia	0.0036 [0.0605]	0.2124** [0.0927]	0.0637 [0.0548]	0.1208 [0.1003]	0.0493 [0.0573]	0.1368 [0.1088]	0.0726 [0.0590]	0.1034 [0.1002]
Western or Northern Europe	0.1007 [0.1060]	0.0689 [0.1251]	0.0580 [0.0953]	0.0714 [0.1220]	0.0599 [0.0812]	0.0718 [0.0975]	0.0581 [0.0820]	0.0682 [0.1089]
Southern or Eastern Europe	-0.0315 [0.0470]	0.0474 [0.0550]	-0.0367 [0.0447]	0.0257 [0.0460]	-0.0467 [0.0446]	0.0399 [0.0449]	-0.0315 [0.0435]	0.0198 [0.0435]
Anglosphere	0.0673 [0.0665]	-0.0378 [0.0637]	0.0791 [0.0681]	-0.0290 [0.0685]	0.0984 [0.0735]	-0.0514 [0.0663]	0.1054 [0.0806]	-0.0467 [0.0704]
Other / Unknown / Single parent	-0.0099 [0.0396]	0.1142** [0.0476]	-0.0356 [0.0361]	0.1354*** [0.0458]	-0.0330 [0.0365]	0.1552*** [0.0462]	-0.0331 [0.0349]	0.1450*** [0.0443]
Generation unknown	0.0153 [0.0417]	-0.0465 [0.0460]	-0.0018 [0.0425]	0.0125 [0.0425]	0.0148 [0.0435]	-0.0124 [0.0474]	-0.0005 [0.0421]	0.0102 [0.0422]
<b>High School Grades</b>								
Overall grade			-0.0040*** [0.0008]	0.0143*** [0.0008]			-0.0035*** [0.0008]	0.0108*** [0.0008]
Math grade			-0.0013*** [0.0005]	0.0008* [0.0005]			-0.0012*** [0.0005]	0.0008 [0.0005]
Main language grade			-0.0023*** [0.0006]	0.0056*** [0.0006]			-0.0019*** [0.0006]	0.0038*** [0.0006]
Science Grade			-0.0024*** [0.0004]	0.0070*** [0.0004]			-0.0017*** [0.0004]	0.0039*** [0.0004]
<b>High School Engagement</b>								
Academic identification					-0.0008 [0.0061]	0.0166*** [0.0063]	0.0028 [0.0058]	0.0061 [0.0058]
Academic participation					-0.0258*** [0.0061]	0.1002*** [0.0067]	-0.0199*** [0.0059]	0.0664*** [0.0060]
Social engagement					-0.0050 [0.0054]	0.0123** [0.0054]	-0.0064 [0.0053]	0.0114** [0.0052]
<b>Self-perception</b>								
Self-esteem					0.0027 [0.0055]	0.0033 [0.0057]	0.0053 [0.0053]	-0.0033 [0.0053]
Self-efficacy					-0.0102** [0.0044]	0.0236*** [0.0041]	-0.0034 [0.0039]	0.0061* [0.0037]
Self-mastery					-0.0006 [0.0053]	0.0061 [0.0054]	-0.0030 [0.0051]	0.0105** [0.0051]
<b>Social Support</b>								
					0.0068 [0.0042]	-0.0185*** [0.0047]	0.0055 [0.0041]	-0.0118*** [0.0044]
<b>Parental Behaviour</b>								
Monitoring behaviour					0.0038 [0.0027]	0.0052 [0.0032]	0.0019 [0.0025]	0.0061** [0.0031]
Nurturance behaviour					-0.0062 [0.0044]	0.0144*** [0.0039]	-0.0052 [0.0052]	0.0086* [0.0048]
Inconsistent discipline					-0.0023 [0.0041]	-0.0132*** [0.0035]	-0.0049 [0.0050]	-0.0050 [0.0044]
<b>Reading Ability</b>								
					-0.0006*** [0.0001]	0.0022*** [0.0001]	-0.0004*** [0.0001]	0.0013*** [0.0001]
<b>Observations</b>	16825		15126		15114		15114	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



## Appendix 1: Immigration Regions

Region in Model	Region classification by United Nations		Countries within Region		
	Continent	Region			
Americas (Except USA)	Americas	North America	Bermuda	St.Pierre and Miquelon	
		South America	Argentina Bolivia Brazil Chile	Colombia Ecuador Guyana Paraguay	Peru Uruguay Venezuela South America unspecified
		Latin America and the Caribbean	Aruba Bahamas Barbados Cuba	Grenada Haiti Jamaica St.Lucia	St.Vincent/Grenadines Trinidad-Tobago
		Central America	Belize Costa Rica El Salvador	Guatemala Honduras Mexico	Nicaragua Central America unspecified
Africa	Africa	Eastern Africa	Burundi Eritrea Ethiopia Kenya	Mauritius Mozambique Somalia Tanzania	Uganda Zambia Zimbabwe East Africa unspecified
		Middle Africa	Angola	Congo	
		Northern Africa	Algeria Egypt	Libya Morocco	Sudan Tunisia
		Southern Africa	Botswana	Lesotho	Republic of South Africa
		Western Africa	Cape Verde Islands Ghana Africa unspecified	Mali Nigeria	Sierra Leone Togo West Indies
		China	Asia	East Asia	Hong Kong Taiwan
East and South-East Asia		East Asia	South Korea Korea unspecified	Japan Mongolia	
		South-East Asia	Brunei Indonesia Kampuchea Laos	Malaysia Philippines Singapore	Thailand Union of Myanmar Viet Nam
Other Asia		Southern Asia	Afghanistan Bangladesh	India Iran	Pakistan Sri Lanka
		Western Asia	Bahrain Cyprus Iraq Israel Asia unspecified	Jordan Kuwait Lebanon Qatar	Saudi Arabia Syria Turkey United Arab Emirates

cont...

**Appendix 1: Immigration Regions - cont.**

<b>Region classification by United Nations</b>					
<b>Region in Model</b>	<b>Continent</b>	<b>Region</b>	<b>Countries within Region</b>		
<b>Western and Northern Europe</b>		<b>Western Europe</b>	Austria Belgium	France Germany	Luxembourg Netherlands Switzerland
		<b>Northern Europe</b>	Denmark Estonia Finland	Latvia Lithuania Codes Norway	Sweden Iceland
<b>Southern and Eastern Europe</b>		<b>Southern Europe</b>	Bosnia-Herzegovina Croatia Greece Italy	Malta Portugal Serbia	Slovenia Spain Yugoslavia
		<b>Eastern Europe</b>	Bulgaria Czech Republic Czechoslovakia  Europe unspecified	Hungary Moldavia Poland Romania	Russia Slovakia Ukraine USSR
<b>Anglosphere</b>	<b>Oceania</b>	<b>Australia and New Zealand</b>	Australia	New Zealand	
	<b>Europe</b>	<b>Northern Europe</b>	United Kingdom Republic of Ireland (EIRE)	Ireland unspecified	
	<b>Americas</b>	<b>North America</b>	USA		
<b>Others/unknown</b>	<b>Oceania</b>	<b>Melanesia</b>	Fiji Other		

## Appendix 2: Sample Selection

	% of Obs. In the Starting Sample	Observations Deleted	Observations Left
<b>Starting Sample</b> (YITS-A participants over all 4 cycles)			17,374
<b>High School Continuer</b>	0.88	153	17,221
<b>High School Status Unknown</b>	0.49	85	17,136
<b>Non-Canadian Citizen</b>	0.25	43	17,093
<b>Missing Values</b>			
<b>Unknown visible minority status</b>	0.25	43	17,050
<b>Unknown PSE status</b>	1.30	225	16,825
<b>High Schol Grades</b>	9.33	1,621	15,204
<b>Scales</b>	0.52	90	15,114

Note: The sample includes only those respondents whose parents responded to the YITS-Parent questionnaire in Cycle 1.

**Appendix 3a: MNL PSE Access Models, Aggregate Immigrant Indicators with Grades and Scales, Males**

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>HS location - Urban (Rural)</b>	-0.0203*** [0.0165]	0.0692*** [0.0162]	-0.0114*** [0.0172]	0.0636*** [0.0154]	-0.0140** [0.0172]	0.0428*** [0.0164]	-0.0124 [0.0173]	0.0512*** [0.0154]
<b>HS Province (ON)</b>								
<b>Newfoundland and Labrador</b>	-0.0861*** [0.0279]	0.1208*** [0.0290]	-0.0855*** [0.0292]	0.1113*** [0.0294]	-0.1032*** [0.0287]	0.1326*** [0.0299]	-0.0948*** [0.0291]	0.1189*** [0.0287]
<b>Prince Edward Island</b>	-0.1827*** [0.0250]	0.2038*** [0.0272]	-0.1460*** [0.0257]	0.1191*** [0.0267]	-0.1974*** [0.0239]	0.2440*** [0.0272]	-0.1650*** [0.0247]	0.1732*** [0.0267]
<b>Nova Scotia</b>	-0.1467*** [0.0240]	0.1457*** [0.0253]	-0.1289*** [0.0240]	0.0989*** [0.0240]	-0.1779*** [0.0231]	0.1951*** [0.0246]	-0.1422*** [0.0235]	0.1353*** [0.0239]
<b>New Brunswick</b>	-0.1705*** [0.0228]	0.1474*** [0.0255]	-0.1299*** [0.0243]	0.0875*** [0.0245]	-0.1767*** [0.0231]	0.2028*** [0.0265]	-0.1457*** [0.0237]	0.1334*** [0.0244]
<b>Quebec</b>	0.0158 [0.0263]	-0.0800*** [0.0204]	0.0311 [0.0297]	-0.1241*** [0.0210]	0.0111 [0.0286]	-0.0762*** [0.0218]	0.0178 [0.0212]	-0.1080*** [0.0212]
<b>Manitoba</b>	-0.2145*** [0.0218]	0.1039*** [0.0260]	-0.2097*** [0.0212]	0.0964*** [0.0244]	-0.2279*** [0.0218]	0.1465*** [0.0250]	-0.2136*** [0.0213]	0.1203*** [0.0237]
<b>Saskatchewan</b>	-0.1834*** [0.0219]	0.1023*** [0.0246]	-0.1756*** [0.0219]	0.0678*** [0.0227]	-0.2040*** [0.0218]	0.1337*** [0.0232]	-0.1858*** [0.0216]	0.0951*** [0.0219]
<b>Alberta</b>	-0.1261*** [0.0223]	0.0042 [0.0218]	-0.1359*** [0.0220]	0.0450*** [0.0211]	-0.1150*** [0.0227]	-0.0287*** [0.0211]	-0.1310*** [0.0211]	0.0177 [0.0206]
<b>British Columbia</b>	-0.1100*** [0.0236]	0.0090 [0.0232]	-0.0988*** [0.0237]	-0.0053 [0.0229]	-0.1114*** [0.0241]	0.0210 [0.0239]	-0.0997*** [0.0239]	0.0008 [0.0232]
<b>Linguistic Minority (Speaks Provincial Language)</b>								
<b>French outside QC</b>	0.0518 [0.0318]	-0.0082 [0.0369]	0.0215 [0.0331]	0.0017 [0.0294]	-0.0047 [0.0289]	0.0700* [0.0410]	0.0028 [0.0324]	0.0463 [0.0297]
<b>Other outside QC</b>	0.0405 [0.0374]	0.1114*** [0.0424]	0.0227 [0.0363]	0.0641* [0.0386]	0.0233 [0.0378]	0.0707* [0.0395]	0.0168 [0.0362]	0.0660* [0.0370]
<b>English in QC</b>	0.0511 [0.0360]	0.0384 [0.0388]	0.0508 [0.0357]	0.0622* [0.0377]	0.0639* [0.0376]	0.0561* [0.0420]	0.0642* [0.0385]	0.0554 [0.0391]
<b>Other in QC</b>	0.0619 [0.0594]	0.0474 [0.0657]	0.0590 [0.0674]	0.0410 [0.0620]	0.0284 [0.0584]	0.0932** [0.0635]	0.0428 [0.0622]	0.0669* [0.0588]
<b>Family Type (Two Parents)</b>								
<b>Mother only</b>	-0.0143 [0.0247]	-0.0065 [0.0263]	-0.0282 [0.0249]	0.0100 [0.0231]	-0.0303 [0.0246]	0.0052 [0.0239]	-0.0286 [0.0246]	0.0106 [0.0225]
<b>Father only</b>	0.0569* [0.0511]	-0.0530 [0.0438]	-0.0018 [0.0456]	-0.0103 [0.0379]	-0.0054 [0.0479]	-0.0281 [0.0447]	-0.0084 [0.0465]	-0.0159 [0.0400]
<b>Other</b>	0.0099 [0.0835]	0.0098 [0.1020]	-0.0346 [0.0707]	0.0270 [0.0711]	-0.0564 [0.0741]	0.0343 [0.0908]	-0.0377 [0.0713]	0.0244 [0.0720]
<b>Parent's Education (HS completed)</b>								
<b>Less than HS</b>	-0.0529* [0.0306]	-0.1475*** [0.0333]	-0.0317 [0.0334]	-0.0923*** [0.0311]	-0.0201 [0.0351]	-0.0772** [0.0343]	-0.0196 [0.0345]	-0.0723** [0.0304]
<b>Some PSE</b>	0.0254 [0.0317]	0.0264 [0.0327]	0.0385 [0.0327]	-0.0233 [0.0291]	0.0386 [0.0342]	-0.0164 [0.0325]	0.0354 [0.0335]	-0.0244 [0.0291]
<b>Trade/College</b>	0.0043 [0.0192]	0.0560*** [0.0195]	0.0109 [0.0199]	0.0329* [0.0189]	0.0129 [0.0197]	0.0304* [0.0193]	0.0134 [0.0198]	0.0234 [0.0185]
<b>University-below BA degree</b>	-0.0577* [0.0337]	0.1997*** [0.0384]	-0.0567* [0.0331]	0.1603*** [0.0359]	-0.0475 [0.0340]	0.1438*** [0.0361]	-0.0446 [0.0339]	0.1367*** [0.0362]
<b>University-BA</b>	-0.0947*** [0.0213]	0.2899*** [0.0244]	-0.0617*** [0.0220]	0.1645*** [0.0232]	-0.0716*** [0.0220]	0.1833*** [0.0240]	-0.0583*** [0.0219]	0.1451*** [0.0227]
<b>University-Grad</b>	-0.1876*** [0.0255]	0.4449*** [0.0276]	-0.1239*** [0.0278]	0.2848*** [0.0323]	-0.1418*** [0.0298]	0.3038*** [0.0316]	-0.1112*** [0.0290]	0.2529*** [0.0330]
<b>Other/unknown</b>	-0.2862*** [0.0189]	0.1857 [0.1958]	-0.2834*** [0.0172]	0.1900 [0.1264]	-0.2817*** [0.0192]	0.2489** [0.1241]	-0.2821*** [0.0174]	0.2321** [0.1118]
<b>Family Income Level (\$50 000 to \$75 000)</b>								
<b>Extremely low (\$0-\$5 000)</b>	-0.0321 [0.0657]	0.0692 [0.0588]	-0.0562 [0.0635]	0.0654 [0.0626]	-0.0675 [0.0643]	0.1036* [0.0586]	-0.0635 [0.0631]	0.0837 [0.0588]
<b>\$5 000 to \$25 000</b>	-0.0073 [0.0329]	-0.0096 [0.0327]	0.0243 [0.0396]	0.0026 [0.0335]	0.0055 [0.0369]	0.0109 [0.0350]	0.0183 [0.0385]	0.0071 [0.0324]
<b>\$25 000 to \$50 000</b>	-0.0214 [0.0197]	0.0169 [0.0195]	-0.0250 [0.0204]	0.0499*** [0.0180]	-0.0231 [0.0208]	0.0374** [0.0189]	-0.0258 [0.0204]	0.0483*** [0.0176]
<b>\$75 000 to \$100 000</b>	-0.0013 [0.0204]	0.0541*** [0.0209]	-0.0191** [0.0198]	0.0555*** [0.0191]	-0.0096* [0.0203]	0.0389** [0.0198]	-0.0148 [0.0198]	0.0445** [0.0187]
<b>\$100 000 and up</b>	0.0158 [0.0242]	0.0744*** [0.0253]	0.0038 [0.0238]	0.0729*** [0.0243]	0.0111 [0.0242]	0.0462* [0.0250]	0.0065 [0.0242]	0.0587** [0.0242]

cont...

Appendix 3a: MNL PSE Access Models, Aggregate Immigrant Indicators w/ Grades and Scales, Males - cont.

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>Immigrant Generation (Not an Immigrant)</b>								
1st Generation	-0.0011 [0.0412]	0.0473 [0.0416]	-0.0009 [0.0419]	0.0452 [0.0392]	-0.0084 [0.0432]	0.0756* [0.0428]	0.0023 [0.0426]	0.0516 [0.0402]
2nd Generation	-0.0149 [0.0224]	0.0841*** [0.0230]	-0.0125 [0.0219]	0.0690*** [0.0219]	-0.0212 [0.0223]	0.0863*** [0.0235]	-0.0137 [0.0218]	0.0689*** [0.0219]
Generation unknown	-0.0451 [0.0543]	-0.0268 [0.0631]	-0.0494 [0.0529]	0.0340 [0.0511]	-0.0309 [0.0609]	0.0071 [0.0690]	-0.0497 [0.0544]	0.0339 [0.0560]
<b>High School Grades</b>								
Overall grade			-0.0058*** [0.0011]	0.0146*** [0.0011]			-0.0051*** [0.0012]	0.0115*** [0.0011]
Math grade			-0.0023*** [0.0007]	0.0012* [0.0007]			-0.0023*** [0.0008]	0.0012* [0.0007]
Main language grade			-0.0033*** [0.0009]	0.0054*** [0.0008]			-0.0027*** [0.0009]	0.0036*** [0.0008]
Science grade			-0.0021*** [0.0006]	0.0068*** [0.0006]			-0.0014** [0.0006]	0.0042*** [0.0006]
<b>High School Engagement</b>								
Academic identification					-0.0061 [0.0088]	0.0248*** [0.0084]	-0.0001 [0.0086]	0.0086 [0.0077]
Academic participation					-0.0262*** [0.0088]	0.0904*** [0.0083]	-0.0190** [0.0085]	0.0570*** [0.0075]
Social engagement					-0.0028 [0.0077]	0.0030 [0.0074]	-0.0038 [0.0077]	0.0020 [0.0069]
<b>Self-perception</b>								
Self-esteem					0.0004 [0.0077]	0.0095 [0.0074]	0.0031 [0.0074]	0.0035 [0.0068]
Self-efficacy					-0.0081 [0.0056]	0.0228*** [0.0051]	-0.0006 [0.0052]	0.0044 [0.0046]
Self-mastery					0.0018 [0.0073]	0.0005 [0.0070]	-0.0023 [0.0070]	0.0052 [0.0064]
<b>Social Support</b>								
					0.0035 [0.0060]	-0.0183*** [0.0063]	0.0006 [0.0063]	-0.0093*** [0.0060]
<b>Parental Behaviour</b>								
Monitoring behaviour					0.0022 [0.0037]	0.0075* [0.0043]	0.0016 [0.0033]	0.0070* [0.0041]
Nurturance behaviour					-0.0056 [0.0065]	0.0157*** [0.0057]	-0.0046 [0.0071]	0.0084 [0.0056]
Inconsistent discipline					-0.0034 [0.0061]	-0.0172*** [0.0050]	-0.0058 [0.0070]	-0.0076 [0.0050]
<b>Reading Ability</b>								
					-0.0007*** [0.0001]	0.0020*** [0.0001]	-0.0005*** [0.0001]	0.0011*** [0.0001]
<b>Observations</b>	8216		7254		7249		7249	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Appendix 3b: MNL PSE Access Models, Aggregate Immigrant Indicators with Grades and Scales, Females

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>HS location - Urban (Rural)</b>	-0.0431*** [0.0166]	0.0382** [0.0182]	-0.0463*** [0.0160]	0.0600*** [0.0179]	-0.0390** [0.0160]	0.0390** [0.0177]	-0.0441*** [0.0158]	0.0503*** [0.0175]
<b>HS Province (ON)</b>								
<b>Newfoundland and Labrador</b>	-0.1395*** [0.0258]	0.1387*** [0.0286]	-0.1487*** [0.0231]	0.1650*** [0.0273]	-0.1377*** [0.0243]	0.1297*** [0.0280]	-0.1388*** [0.0232]	0.1416*** [0.0273]
<b>Prince Edward Island</b>	-0.1807*** [0.0239]	0.1830*** [0.0258]	-0.1488*** [0.0229]	0.1182*** [0.0253]	-0.1959*** [0.0206]	0.2103*** [0.0229]	-0.1663*** [0.0213]	0.1607*** [0.0237]
<b>Nova Scotia</b>	-0.1801*** [0.0230]	0.1766*** [0.0251]	-0.1329*** [0.0223]	0.1170*** [0.0257]	-0.1852*** [0.0208]	0.1997*** [0.0237]	-0.1525*** [0.0210]	0.1510*** [0.0244]
<b>New Brunswick</b>	-0.1702*** [0.0229]	0.1489*** [0.0249]	-0.1273*** [0.0221]	0.1040*** [0.0249]	-0.1767*** [0.0201]	0.1810*** [0.0230]	-0.1454*** [0.0203]	0.1378*** [0.0231]
<b>Quebec</b>	0.0051 [0.0242]	-0.0493* [0.0268]	0.0269 [0.0241]	-0.0632** [0.0279]	0.0211 [0.0246]	-0.0588** [0.0274]	0.0256 [0.0246]	-0.0622** [0.0268]
<b>Manitoba</b>	-0.1581*** [0.0235]	0.0770*** [0.0260]	-0.1218*** [0.0231]	0.0342 [0.0267]	-0.1513*** [0.0225]	0.0765*** [0.0248]	-0.1307*** [0.0224]	0.0486* [0.0248]
<b>Saskatchewan</b>	-0.1442*** [0.0236]	0.0763*** [0.0262]	-0.0943*** [0.0233]	0.0168** [0.0265]	-0.1440*** [0.0223]	0.0961*** [0.0250]	-0.1105*** [0.0226]	0.0495* [0.0255]
<b>Alberta</b>	-0.0735*** [0.0241]	-0.0535** [0.0248]	-0.1005*** [0.0221]	0.0361 [0.0244]	-0.0544*** [0.0237]	-0.0784*** [0.0247]	-0.0844*** [0.0224]	-0.0075 [0.0243]
<b>British Columbia</b>	-0.0888*** [0.0241]	-0.0217 [0.0254]	-0.0815*** [0.0227]	-0.0218 [0.0250]	-0.0852*** [0.0224]	-0.0258 [0.0242]	-0.0815*** [0.0218]	-0.0215 [0.0236]
<b>Linguistic Minority (Speaks Provincial Language)</b>								
<b>French outside QC</b>	0.0059 [0.0334]	0.0261 [0.0366]	-0.0299 [0.0284]	0.0554* [0.0299]	-0.0422 [0.0285]	0.0918*** [0.0301]	-0.0433 [0.0266]	0.0877*** [0.0278]
<b>Other outside QC</b>	-0.0597* [0.0358]	0.1775*** [0.0413]	-0.0583* [0.0302]	0.1484*** [0.0347]	-0.0578* [0.0332]	0.1522*** [0.0388]	-0.0552* [0.0306]	0.1420*** [0.0361]
<b>English in QC</b>	0.0179 [0.0412]	0.0548 [0.0516]	0.0011 [0.0373]	0.0790 [0.0501]	0.0066 [0.0388]	0.0800 [0.0575]	0.0012 [0.0365]	0.0802 [0.0522]
<b>Other in QC</b>	0.0250 [0.0656]	0.0657 [0.0872]	-0.0205 [0.0611]	0.0677 [0.0716]	-0.0379 [0.0555]	0.1191* [0.0697]	-0.0252 [0.0538]	0.0894* [0.0683]
<b>Family Type (Two Parents)</b>								
<b>Mother only</b>	0.0116 [0.0227]	0.0195 [0.0256]	0.0050 [0.0219]	0.0077 [0.0254]	0.0100 [0.0222]	0.0059 [0.0250]	0.0094 [0.0220]	0.0016 [0.0245]
<b>Father only</b>	0.0760* [0.0480]	-0.0502 [0.0562]	0.0245 [0.0452]	0.0110 [0.0521]	0.0412 [0.0448]	-0.0292 [0.0483]	0.0219 [0.0450]	0.0049 [0.0486]
<b>Other</b>	-0.0072 [0.0709]	-0.0029 [0.0815]	-0.0193 [0.0684]	0.0109 [0.0796]	-0.0346 [0.0631]	0.0384 [0.0781]	-0.0345 [0.0613]	0.0350 [0.0746]
<b>Parent's Education (HS completed)</b>								
<b>Less than HS</b>	0.0367 [0.0291]	-0.1475*** [0.0313]	0.0325 [0.0292]	-0.0847*** [0.0327]	0.0430 [0.0302]	-0.1065*** [0.0324]	0.0394 [0.0301]	-0.0865*** [0.0324]
<b>Some PSE</b>	-0.0008 [0.0296]	0.0474 [0.0323]	-0.0019 [0.0275]	0.0359 [0.0315]	0.0147 [0.0287]	0.0014 [0.0306]	0.0077 [0.0274]	0.0141 [0.0294]
<b>Trade/College</b>	-0.0086 [0.0183]	0.0792*** [0.0199]	0.0038 [0.0182]	0.0375* [0.0201]	0.0157 [0.0182]	0.0204 [0.0198]	0.0160 [0.0178]	0.0174 [0.0192]
<b>University-below BA degree</b>	-0.0826*** [0.0319]	0.2116*** [0.0355]	-0.0521* [0.0303]	0.1262*** [0.0328]	-0.0284 [0.0323]	0.0971** [0.0387]	-0.0273 [0.0307]	0.0834** [0.0347]
<b>University-BA</b>	-0.0969*** [0.0234]	0.2671*** [0.0262]	-0.0332 [0.0223]	0.1510*** [0.0281]	-0.0190 [0.0228]	0.1256*** [0.0279]	-0.0071 [0.0222]	0.1055*** [0.0275]
<b>University-Grad</b>	-0.1868*** [0.0267]	0.3530*** [0.0265]	-0.1169*** [0.0305]	0.2045*** [0.0297]	-0.1063*** [0.0321]	0.1852*** [0.0340]	-0.0926*** [0.0312]	0.1570*** [0.0317]
<b>Other/unknown</b>	0.4217 [0.5414]	-0.3011* [0.1798]	0.3076 [0.3679]	-0.1894 [0.1828]	0.2575 [0.2282]	-0.1456 [0.1770]	0.2175 [0.2019]	-0.1022 [0.1574]
<b>Family Income Level (\$50 000 to \$75 000)</b>								
<b>Extremely low (\$0-\$5 000)</b>	0.0413 [0.0769]	-0.0906 [0.0865]	-0.0049 [0.0676]	-0.0024 [0.1106]	-0.0439 [0.0675]	0.0734 [0.0896]	-0.0315 [0.0664]	0.0544 [0.1031]
<b>\$5 000 to \$25 000</b>	-0.0340 [0.0293]	-0.0789** [0.0323]	-0.0652** [0.0285]	-0.0173 [0.0334]	-0.0568** [0.0285]	-0.0076 [0.0328]	-0.0686** [0.0279]	0.0057 [0.0323]
<b>\$25 000 to \$50 000</b>	0.0279 [0.0201]	-0.1027*** [0.0215]	0.0055 [0.0195]	-0.0628*** [0.0213]	0.0042 [0.0195]	-0.0491** [0.0211]	-0.0023 [0.0191]	-0.0393* [0.0207]
<b>\$75 000 to \$100 000</b>	-0.0255 [0.0210]	0.0177 [0.0231]	-0.0404** [0.0190]	0.0399* [0.0210]	-0.0407** [0.0194]	0.0408* [0.0214]	-0.0443** [0.0183]	0.0451** [0.0204]
<b>\$100 000 and up</b>	-0.0356 [0.0261]	0.0920*** [0.0292]	-0.0426* [0.0229]	0.0863*** [0.0271]	-0.0429* [0.0234]	0.0903*** [0.0292]	-0.0409* [0.0219]	0.0835*** [0.0272]

cont...

Appendix 3a: MNL PSE Access Models, Aggregate Immigrant Indicators w/ Grades and Scales, Females - cont.

	Basic Model		Grades Only		Scales Only		Grades and Scales	
	College	University	College	University	College	University	College	University
<b>Immigrant Generation (Not an Immigrant)</b>								
1st Generation	-0.0168 [0.0439]	0.0329 [0.0480]	0.0057 [0.0406]	0.0096 [0.0465]	-0.0128 [0.0424]	0.0316* [0.0481]	-0.0063 [0.0402]	0.0232 [0.0469]
2nd Generation	-0.0341 [0.0237]	0.0815*** [0.0257]	-0.0377* [0.0209]	0.0820*** [0.0232]	-0.0252 [0.0216]	0.0720*** [0.0245]	-0.0276 [0.0205]	0.0702*** [0.0228]
Generation unknown	0.0704 [0.0621]	-0.1012 [0.0646]	0.0347 [0.0653]	-0.0427 [0.0693]	0.0660 [0.0634]	-0.0726 [0.0667]	0.0446 [0.0646]	-0.0486 [0.0647]
<b>High School Grades</b>								
Overall grade			-0.0029*** [0.0011]	0.0145*** [0.0012]			-0.0026** [0.0011]	0.0106*** [0.0012]
Math grade			-0.0006 [0.0006]	0.0009 [0.0007]			-0.0005 [0.0006]	0.0006 [0.0007]
Main language grade			-0.0012 [0.0009]	0.0053*** [0.0010]			-0.0009 [0.0009]	0.0037*** [0.0010]
Science grade			-0.0028*** [0.0005]	0.0069*** [0.0006]			-0.0021*** [0.0005]	0.0035*** [0.0006]
<b>High School Engagement</b>								
Academic identification					0.0047 [0.0088]	0.0080 [0.0098]	0.0071 [0.0083]	0.0022 [0.0092]
Academic participation					-0.0257*** [0.0088]	0.1187*** [0.0116]	-0.0199** [0.0086]	0.0835*** [0.0106]
Social engagement					-0.0072 [0.0075]	0.0225*** [0.0082]	-0.0094 [0.0073]	0.0214*** [0.0079]
<b>Self-perception</b>								
Self-esteem					0.0042 [0.0079]	-0.0044 [0.0089]	0.0082 [0.0074]	-0.0128 [0.0084]
Self-efficacy					-0.0147** [0.0070]	0.0259*** [0.0069]	-0.0074 [0.0059]	0.0080 [0.0056]
Self-mastery					0.0001 [0.0079]	0.0073 [0.0085]	-0.0027 [0.0075]	0.0143* [0.0080]
<b>Social Support</b>								
					0.0101* [0.0059]	-0.0193*** [0.0072]	0.0089 [0.0055]	-0.0137** [0.0066]
<b>Parental Behaviour</b>								
Monitoring behaviour					0.0037 [0.0041]	0.0047 [0.0053]	0.0017 [0.0031]	0.0064 [0.0040]
Nurturance behaviour					-0.0052 [0.0051]	0.0022 [0.0051]	-0.0037 [0.0058]	-0.0024 [0.0052]
Inconsistent discipline					0.0003 [0.0047]	-0.0037 [0.0049]	-0.0013 [0.0054]	0.0015 [0.0049]
<b>Reading Ability</b>								
					-0.0005*** [0.0001]	0.0023*** [0.0001]	-0.0003*** [0.0001]	0.0015*** [0.0001]
<b>Observations</b>	8609		7872		7865		7865	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis. Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## Appendix 4: Explanation of Scale Variables

**General description:** All of the various scales used in the YITS 15-year-old 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

#### 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:**

YSA9K People at school are interested in what I have to say;  
YSA9O I have friends at school whom I can talk to about personal things;  
YSA9P I have friends at school who can help me with school work, if needed;  
ST31Q01 My school is a place where I feel like an outsider;  
ST31Q02 My school is a place where I make friends easily;  
ST31Q03 My school is a place where I feel like I belong;  
ST31Q04 My school is a place where I feel awkward and out of place;  
ST31Q05 My school is a place where other students seem to like me;  
ST31Q06 My school is a place where I feel lonely.

#### 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:**

YSA6 hours on homework outside of class during free periods and at home;  
YSA7 number of time I cut or skipped a class without permission;  
YSA8B I completed my assignments;  
ST32Q01 I completed homework on time;  
ST33Q01 On average, time spent each week on homework and study in these subject areas: test language, mathematics and science,  
ST33Q02 respectively.  
ST33Q03

#### 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:**

YSA8I I get along well with teachers;  
YSA8J I am interested in what I am learning in class;  
YSA9E School is one of the most important things in my life;  
YSA9F Many of the things we learn in class are useless;  
YSA9G Most of my teachers don't really care about me  
YSA9H Most of the time, I would like to be any place other than in school;  
YSA9J Most of what I learn in school will be useful when I get a job;  
YSA9L School is often a waste of time;  
YSA9M School is more important than most people think;  
YSA9N Most of my teachers do a good job of teaching;  
ST30Q03 Most of my teachers really listen to what I have to say;  
ST30Q04 If I need extra help, I will receive it from my teachers;  
ST30Q05 Most of my teachers treat me fairly;  
ST31Q07 My school is a place where I do not want to go;  
ST32Q06 I am giving interesting homework.

### Self-perception:

#### Self-esteem

**Description:** The self-esteem scale that was chosen for YITS is Morris Rosenberg's 22 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:**

YS11A I feel I am a person of worth, at least on an equal basis with others;  
YS11B I feel that I have a number of good qualities;  
YS11C All in all, I tend to feel that I am a failure;  
YS11D I am able to do things as well as most other people;  
YS11E I feel I do not have much to be proud of;  
YS11F I have a positive attitude toward myself;  
YS11G On the whole, I am satisfied with myself;  
YS11H I wish I could like myself more;  
YS11I I certainly feel useless at times;  
YS11J At times I think I am no good at all.

cont . . .



## Appendix 4 - 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 scale<sup>25</sup>, 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).

Appendix 5: MNL PSE Access Models, Mother's Vs. Father's Origin

	Mother's Origin		Father's Origin		Both Parents' Origin	
	College	University	College	University	College	University
<b>Female (Male)</b>	-0.0285***	0.1649***	-0.0291***	0.1661***	-0.0296***	0.1659***
	[0.0099]	[0.0103]	[0.0099]	[0.0102]	[0.0099]	[0.0103]
<b>HS location - Urban (Rural)</b>	-0.0316***	0.0485***	-0.0310***	0.0477***	-0.0313***	0.0488***
	[0.0116]	[0.0119]	[0.0116]	[0.0119]	[0.0116]	[0.0119]
<b>HS Province (ON)</b>						
<b>Newfoundland and Labrador</b>	-0.1129***	0.1231***	-0.1131***	0.1238***	-0.1125***	0.1233***
	[0.0187]	[0.0202]	[0.0187]	[0.0202]	[0.0187]	[0.0202]
<b>Prince Edward Island</b>	-0.1791***	0.1866***	-0.1791***	0.1870***	-0.1789***	0.1867***
	[0.0172]	[0.0185]	[0.0172]	[0.0185]	[0.0172]	[0.0185]
<b>Nova Scotia</b>	-0.1622***	0.1545***	-0.1629***	0.1556***	-0.1624***	0.1548***
	[0.0166]	[0.0178]	[0.0165]	[0.0177]	[0.0165]	[0.0177]
<b>New Brunswick</b>	-0.1681***	0.1425***	-0.1684***	0.1436***	-0.1680***	0.1428***
	[0.0160]	[0.0175]	[0.0160]	[0.0175]	[0.0160]	[0.0175]
<b>Quebec</b>	0.0118	-0.0705***	0.0119	-0.0702***	0.0121	-0.0696***
	[0.0175]	[0.0163]	[0.0175]	[0.0163]	[0.0175]	[0.0163]
<b>Manitoba</b>	-0.1867***	0.0902***	-0.1859***	0.0905***	-0.1862***	0.0907***
	[0.0157]	[0.0176]	[0.0158]	[0.0177]	[0.0158]	[0.0177]
<b>Saskatchewan</b>	-0.1622***	0.0836***	-0.1627***	0.0852***	-0.1618***	0.0837***
	[0.0160]	[0.0177]	[0.0160]	[0.0176]	[0.0160]	[0.0176]
<b>Alberta</b>	-0.0986***	-0.0309*	-0.0990***	-0.0293*	-0.0981***	-0.0297*
	[0.0162]	[0.0160]	[0.0162]	[0.0160]	[0.0162]	[0.0161]
<b>British Columbia</b>	-0.0858***	-0.0320*	-0.0873***	-0.0295*	-0.0851***	-0.0310*
	[0.0167]	[0.0168]	[0.0166]	[0.0168]	[0.0166]	[0.0168]
<b>Linguistic Minority (Speaks Provincial Language)</b>						
<b>French outside QC</b>	0.0292	0.0048	0.0300	0.0035	0.0310	0.0041
	[0.0232]	[0.0258]	[0.0231]	[0.0263]	[0.0230]	[0.0262]
<b>Other outside QC</b>	0.0021	0.0757**	0.0000	0.0743**	-0.0031	0.0826**
	[0.0312]	[0.0351]	[0.0310]	[0.0348]	[0.0310]	[0.0345]
<b>English in QC</b>	0.0397	0.0389	0.0393	0.0411	0.0410	0.0378
	[0.0267]	[0.0305]	[0.0267]	[0.0307]	[0.0268]	[0.0307]
<b>Other in QC</b>	0.0348	0.0462	0.0340	0.0468	0.0351	0.0495
	[0.0442]	[0.0527]	[0.0447]	[0.0536]	[0.0448]	[0.0526]
<b>Family Type (Two Parents)</b>						
<b>Mother only</b>	-0.0022	0.0153	-0.0058	0.0103	-0.0025	0.0073
	[0.0168]	[0.0184]	[0.0174]	[0.0190]	[0.0174]	[0.0189]
<b>Father only</b>	0.0654*	-0.0532	0.0616*	-0.0527	0.0595*	-0.0517
	[0.0358]	[0.0353]	[0.0346]	[0.0344]	[0.0346]	[0.0347]
<b>Other</b>	0.0015	-0.0157	-0.0019	-0.0116	-0.0010	-0.0142
	[0.0543]	[0.0678]	[0.0538]	[0.0679]	[0.0538]	[0.0677]
<b>Parent/Guardian Education (HS completed)</b>						
<b>Less than HS</b>	-0.0068	-0.1419***	-0.0057	-0.1420***	-0.0064	-0.1425***
	[0.0208]	[0.0225]	[0.0209]	[0.0224]	[0.0208]	[0.0225]
<b>Some PSE</b>	0.0088	0.0453**	0.0106	0.0430*	0.0108	0.0442*
	[0.0210]	[0.0228]	[0.0211]	[0.0228]	[0.0211]	[0.0228]
<b>Trade/College</b>	-0.0059	0.0733***	-0.0051	0.0730***	-0.0052	0.0733***
	[0.0130]	[0.0138]	[0.0130]	[0.0138]	[0.0130]	[0.0138]
<b>University-below BA degree</b>	-0.0711***	0.2061***	-0.0702***	0.2054***	-0.0698***	0.2054***
	[0.0230]	[0.0254]	[0.0231]	[0.0255]	[0.0230]	[0.0254]
<b>University-BA</b>	-0.1011***	0.2822***	-0.1008***	0.2824***	-0.1005***	0.2824***
	[0.0153]	[0.0170]	[0.0154]	[0.0171]	[0.0153]	[0.0171]
<b>University-Grad</b>	-0.1879***	0.3993***	-0.1877***	0.3999***	-0.1873***	0.3992***
	[0.0182]	[0.0190]	[0.0182]	[0.0190]	[0.0182]	[0.0190]
<b>Other/unknown</b>	0.0157	-0.0564	0.0190	-0.0544	0.0178	-0.0532
	[0.1675]	[0.1671]	[0.1688]	[0.1667]	[0.1682]	[0.1672]
<b>Parental Income Level (\$50000 to \$75000)</b>						
<b>Extremely low (\$0-\$5000)</b>	0.0148	-0.0300	0.0151	-0.0301	0.0183	-0.0307
	[0.0539]	[0.0561]	[0.0531]	[0.0552]	[0.0534]	[0.0551]
<b>\$5000 to \$25000</b>	-0.0164	-0.0556**	-0.0162	-0.0551**	-0.0156	-0.0538**
	[0.0218]	[0.0229]	[0.0218]	[0.0229]	[0.0218]	[0.0229]
<b>\$25000 to \$50000</b>	0.0043	-0.0488***	0.0043	-0.0486***	0.0048	-0.0484***
	[0.0141]	[0.0144]	[0.0141]	[0.0144]	[0.0141]	[0.0144]
<b>\$75000 to \$100000</b>	-0.0126	0.0346**	-0.0120	0.0336**	-0.0127	0.0348**
	[0.0143]	[0.0153]	[0.0143]	[0.0153]	[0.0142]	[0.0153]
<b>\$100000 and up</b>	-0.0095	0.0833***	-0.0098	0.0841***	-0.0103	0.0840***
	[0.0170]	[0.0185]	[0.0170]	[0.0185]	[0.0170]	[0.0185]

cont...

Appendix 5: MNL PSE Access Models, Mother's Vs. Father's Origin - cont.

	Mother's Origin		Father's Origin		Both Parents' Origin	
	College	University	College	University	College	University
<b>Generation &amp; Origin (Original Canadians)</b>						
<b>1st Generation, origin of the student</b>						
Americas (Except USA)	0.0100	-0.1314**	0.0125	-0.1302**	0.0125	-0.1345**
	[0.0610]	[0.0604]	[0.0614]	[0.0605]	[0.0614]	[0.0599]
Africa	-0.0129	0.1759	-0.0127	0.1758	-0.0107	0.1727
	[0.1055]	[0.1384]	[0.1055]	[0.1385]	[0.1056]	[0.1387]
China	-0.1890***	0.4505***	-0.1884***	0.4496***	-0.1859***	0.4468***
	[0.0604]	[0.0651]	[0.0608]	[0.0656]	[0.0617]	[0.0666]
Other East & South-east Asia	0.1343*	-0.0470	0.1367*	-0.0463	0.1385*	-0.0526
	[0.0705]	[0.0759]	[0.0705]	[0.0764]	[0.0709]	[0.0754]
Other Asia	-0.0148	0.1507*	-0.0141	0.1509*	-0.0110	0.1448*
	[0.0686]	[0.0835]	[0.0686]	[0.0838]	[0.0687]	[0.0837]
Western or Northern Europe	0.0019	0.0255	0.0033	0.0253	0.0043	0.0214
	[0.1091]	[0.0786]	[0.1085]	[0.0786]	[0.1093]	[0.0784]
Southern or Eastern Europe	0.0591	-0.0110	0.0609	-0.0100	0.0635	-0.0182
	[0.0643]	[0.0711]	[0.0640]	[0.0713]	[0.0642]	[0.0705]
Anglosphere	-0.0834	0.0297	-0.0827	0.0304	-0.0829	0.0291
	[0.0646]	[0.0669]	[0.0644]	[0.0670]	[0.0644]	[0.0667]
Others/unknown	0.1359	-0.0810	0.1386	-0.0811	0.1416	-0.0889
	[0.1603]	[0.1751]	[0.1596]	[0.1757]	[0.1597]	[0.1732]
<b>2nd Generation, origin of the parent</b>						
<b>Parent is Canadian by birth</b>						
	<b>Mother Only</b>		<b>Father Only</b>			
	-0.0252	0.1081***	-0.0234	0.0393		
	[0.0265]	[0.0277]	[0.0306]	[0.0307]		
Americas (Except Canada and USA)	0.0204	0.0387	0.0358	0.0182		
	[0.0409]	[0.0454]	[0.0496]	[0.0517]		
Africa	-0.1066	0.3381***	-0.1166*	0.2797***		
	[0.0836]	[0.0983]	[0.0670]	[0.0647]		
China	-0.1434**	0.3477***	-0.1302**	0.3269***		
	[0.0673]	[0.0746]	[0.0627]	[0.0698]		
Other East & South-east Asia	-0.0116	0.1495***	-0.0432	0.1520**		
	[0.0512]	[0.0530]	[0.0595]	[0.0661]		
Other Asia	-0.0065	0.2050***	0.0069	0.2095**		
	[0.0542]	[0.0703]	[0.0539]	[0.0830]		
Western or Northern Europe	-0.0098	0.0533	-0.0309	0.1404***		
	[0.0519]	[0.0516]	[0.0443]	[0.0458]		
Southern or Eastern Europe	-0.0370	0.0558	-0.0496	0.0875**		
	[0.0375]	[0.0425]	[0.0356]	[0.0390]		
Anglosphere	-0.0105	0.0171	-0.0129	0.0159		
	[0.0319]	[0.0338]	[0.0330]	[0.0323]		
Other / Unknown / No Mom (No Dad)	-0.0763	0.1263	0.0100	0.1011*		
	[0.0745]	[0.0772]	[0.0424]	[0.0524]		
<b>2nd Generation, mixture of the parent(s)' origin</b>						
Mother Canadian Father imm.					-0.0273	0.1088***
					[0.0267]	[0.0278]
Father Canadian Mother imm.					-0.0206	0.0378
					[0.0308]	[0.0310]
Both parents imm. but different origin					-0.1362***	0.0914*
					[0.0434]	[0.0489]
Both parents immigrants from the same origin						
Americas (Except Canada and USA)					0.0756	-0.0435
					[0.0635]	[0.0659]
Africa					-0.1089	0.3487**
					[0.1143]	[0.1408]
China					-0.1494**	0.3546***
					[0.0732]	[0.0799]
Other East & South-east Asia					-0.0138	0.1497**
					[0.0604]	[0.0613]
Other Asia					0.0036	0.2124**
					[0.0605]	[0.0927]
Western or Northern Europe					0.1007	0.0689
					[0.1060]	[0.1251]
Southern or Eastern Europe					-0.0315	0.0474
					[0.0470]	[0.0550]
Anglosphere					0.0673	-0.0378
					[0.0665]	[0.0637]
Other / Unknown / Single parent					-0.0099	0.1142**
					[0.0396]	[0.0476]
Generation unknown	0.0144	-0.0446	0.0155	-0.0472	0.0153	-0.0465
	[0.0418]	[0.0460]	[0.0418]	[0.0460]	[0.0417]	[0.0460]
<b>Observations</b>	16825		16825		16825	

Notes: Average marginal effects are shown. Omitted categories are in parenthesis  
Standard errors are in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.