The Influence of Parental Education and Gender on the Major Choice of Canadian Post-Secondary Graduates

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1. Introduction

Although intergenerational mobility, or the lack thereof, is not a new subject of study in economics (see, e.g., Becker and Tomes, 1979), it has experienced a resurgence of interest (along with the "1% percent" literature) in the recent years in both academia and the popular press with the now famous "Great Gatsby Curve". For example, the Journal of Economic Perspectives devoted a symposium on the issue in 2013.[1]

One often cited factor that can improve intergenerational mobility is education as high education is associated to higher earnings and 'better' occupations (see Restuccia and Urrutia, 2004). But, there is also plenty of evidence that the returns of a university degree exhibit significant heterogeineity across fields of study (Altonji et al. 2012, 2016) and there is evidence that students from less privileged socioeconomic backgrounds tend to enroll in less prestigious and financially rewarding programs such as medicine and STEM (Estevan et al. (2019). Hence, for the same level of education, individuals from less privileged socioeconomic backgrounds could end up in 'worse' occupations than individuals from more privileged socioeconomic backgrounds, which would in turn affect intergenerational mobility.

In this paper, I investigate whether parental education affects the determinants one's choice of university program. In particular, I test whether parental education affects factors such as the perceived importance of future employment opportunity when it comes to choosing a post-secondary program. I also consider other the effect of parental education on the perceived importance of: personal interests, parental and friend recommendations, reputation of the program, reputation of the institution, proximity to home, when choosing a post-

[1] In particular, this issue summarizes the work of Miles Corak and his co-authors on intergenerational mobility in Canada and the United States (Corak, 2013).

secondary program. I then explore whether there appear to be gender differences in the way parental education affects these perceptions.

To do this analysis, I use the Canadian National Graduate Survey (NGS) of 2013. The NGS allows me to investigate the above questions as it asks its respondents a series of questions regarding the perceived determinants of post-secondary program choice.

The results from this study will shed light on the perceived important factors in the case of program choice and whether parental socioeconomic status could affect them. These will, in turn, will inform us on whether the differences in perceived importance could exacerbate intergenerational mobility.

The paper is organized as follows. The next section presents a brief review of the literature in sociology and economics regarding intergenerational mobility. Section 3 presents the data used in this study. Section 4 presents the empirical strategy and Section 5 describes and discusses the results. Finally, Section 5 concludes.

2. Brief Review of the Literature

Arguably, sufficient social mobility helps to narrow the wealth/income gap and reduce the opportunity inequality. Lack of social mobility involves deteriorating social inequality and relative economic disadvantage problems. There is also evidence that the lack of social mobility affects growth and development. For example, in an investigation of economic development over 30 years, across 35 different countries, Evans and Rauch (1999) found that the maintenance of nobility among the social classes to emphasize bureaucracy in the Philippines caused that the country suffered a lag in development compared to South Korea,

despite the fact that the two countries were of similar economic standing. There are, however, significant barriers that prevent upward social mobility for many individuals.

Tang (2010), states that an individual's professional ability has a less significant impact on deciding whether or not that individual is capable of occupying a leadership position when compared to the influence of parental social/economic status. A man in a leadership position will often remain in that post until it is passed on to their offspring, thus many leadership positions are "hereditary" occupations (Service 1971). Jenkins (2004) shows that parents influence African American students in both their occupational attainments and their academic achievements by providing the economic resources necessary to achieve their goals, whilst also serving as role models for achievement, and suggests the importance of parents providing their children with social statuses and material benefits. After analyzing 12 European Union countries, Iannelli (2001) finds that a young person's educational attainment, and early occupational status, are heavily influenced by their parent's educational and social background, whereas the strength of this influence is heterogeneous among countries.

A second dimension of social mobility in the positional market is gender difference (i.e., the participation status of women). As Tsukahara (2007) stated, children in Japan tend to participate in the same occupation as their father, and this is especially true among males. Meanwhile, Soopramanien and Johnes (2001) found that men with the same characteristics are more readily accepted into managerial and professional positions than women, and there exist heterogeneous returns derived from this gender positional inequality.

Even though social mobility does not solely depend on individual professional ability, education is still the primary method (as human capital investment) for people to learn the

professional knowledge required for their careers and to prepare them for their desire field of work. Usually professional and 'high-risk'occupations are associated with high socioeconomic status (Tang 2010).

Altonji Blom and Meghir (2012), find significant heterogeneity in returns to education (year of studying) across majors. They present considerable gaps in log wage rates between not only between college graduates and high school graduates, but also across majors (such as electrical engineering) and general education majors (such as career teaching). Moreover, highly selective programs are also associated with larger returns, especially programs in health, science/technology and social fields (Hasting, Neilson and Zimmerman 2013). Hence, if students form disadvantaged backgrounds select into lower rewarding post-secondary majors (see Estevan et al. 2019), we can imagine that social intergenerational mobility could be affected by heterogeneous returns to majors.

Gordon (2002) presents evidence that encouraging people to achieve higher educational (especially in STEM) attainment, and personal meritocracy accelerates the economic growth rate (i.e., acceleration of productivity growth based on technological advancement) in national terms. Hasting, Neilson and Zimmerman (2013) similarly suggested that educational policies should support people from an underprivileged background in attending higher-return degree programs.

A number of previous studies found that university or program choice affected income, and parents with higher incomes (education) are likely to have higher children with higher incomes (education). On the other hand, a few studies suggest that individuals with higher education parents choose post-secondary programs differently compared with individuals

with less educated parents. When students from different backgrounds (especially parental education and personal gender status) consider their major choices, the question should be asked, do they put weight on different aspects of post-secondary benefit/cost elements? This work explores the extent to which parental education levels influence graduates' valuation about considerations regarding post-secondary program/intuition choice, or even if such effects heterogeneously exist at all. Currently, the answer to this question is unclear.

3. Data Source

The data used are drawn from the 2013 National Graduate Survey (NGS), which is a survey designed to assist researchers in understanding the experience and outcomes of Canadian post-secondary graduates. This survey a sample survey with a cross-sectional design and a longitudinal follow-up, and is carried out every five years by Statistics Canada.

All the participants in the survey are graduates from Canadian public post-secondary education institutions. Graduates from private postsecondary education institutions, as well as those from a continuing-education program, are not sampled (if they do not have a diploma from a public post-secondary institution). All respondents graduated or completed the requirements for degrees, diplomas or certificates during the reference school year, which is 2009/10. The NGS was conducted in 2013, three years after the participants had graduated, so those counted in the dataset were required to be living in Canada or the United States at the time of the survey.

A total of 14,745 observations are included in the 2013 NGS. Many of the records are incomplete, unfortunately, because some respondent failed to answer all of the questions. Therefore, this will cause response bias. Only the observations from respondents, who

completed responses to all the required questions, were kept, and the 1,672 incomplete observations were excluded from this work. This results in a final sample of 13,073 observations.

3.1 Descriptive Statistics

This paper focuses on an individual's considerations for choosing post-secondary programs (both in benefits and costs) used them as endogenous variables to represent the preference of study fields. Six different major-choice determinants are taken into consideration: potential employment opportunities, personal interest, parental recommendations, program reputations, institution reputations, and the proximity to the individual's home.

The outcome variables of interest are categorical, which is easier to understand if those categorical variables are transited into dummy variables by recoding the original classification of those descriptive factors. For example, each of the six original endogenous variables describes the respondent's perception of the importance of considerations in regard to choosing a field of study, which is subjectively evaluated by these graduates. I construct dummy variables such that they equal one when individuals consider the aspect to be "Very Important", and zero otherwise.

This work considers the level of a student's parental education as the primary explanatory variable. The educational attainment variable is also categorical, and takes one of five different values of certification: the trade/vocational certificate or diploma in Quebec only, college diploma, bachelor's degree, master's degree, and doctorate. The NGS also contains information regarding the individuals' ethnic and racial group identified by "visible minority", their language background, and the individuals' gender during the reference 2013 year. Unfortunately, information regarding the respondent's specific field of study is not available.

The education variables are constructed as follows:

Father Education (Years): This is an independent variable referring to the highest level of studies that has been achieved by the student's father at the time of interview (that is, 2013), and will be expressed in terms of years schooling (as opposed to the original highest education degree attained) as this is done in many studies. Similarly "Mother Education (Years)" refers to the highest level of studies that has been achieved by the student's father at the time of interview. "Father Education (Years)" equals eight is the father did not complete his high school courses or equivalent. "Father Education (Years)" equals 12 if he has a high school diploma or achieved a high school equivalency certificate. It equals 13 means in the case of a trade certificate or diploma. "Father Education (Years)" equals 14 if the father has completed his college or CEGEP program with a diploma and 16 if he has completed a bachelor's degree or first professional degree at a university. Unfortunately, master's degree and doctorates are not treated separately. So, finally, "Father Education (Years)" equals 18 if the father has earned a master's degree, a doctorate, or any diploma above a bachelor's degree. "Mother Education (Years)" is coded using the exact same procedure.

The variable "Male" is equal one when the respondent is male. Conversely, if the respondent is female then the variable "Male" is equal to zero. Additionally, there are five more interaction terms in which the gender indicator is crossed with other exogenous variables in order to test whether the effect of these variables differ across gender.

The two other sets of control variables refer to ethnic and linguistic characteristics. "Visible Minority" equals one if the respondent identifies as a member of a visible minority ethnic or racial group, and zero otherwise. Linguistic background information variable is initially grouped into three categories: (1) English, (2) French, and (3) Other languages. These

languages refer to the language that has been first learned at home and is still understood. I generate two dummy variables based on this information: “Francophone” and “Allophone” indicator variables. “Francophone” equals one when the respondents learned only French as their first language at home and still understand it; otherwise, “Francophone” equals zero. “Allophone” equals one when the respondents learned only a language other than English or French as their first language at home and still understand it; otherwise, it equals zero. English as a first language represents the base (or comparison) group.

Table 1 presents the descriptive statistics of the main variables of interest, including the six outcome variables, six exogenous variables, and the other five interaction variables. All variables except the ones involving parental education are dummy variables and should therefore be interpreted as proportions.

Not surprisingly, Table 1 suggests that personal interest and employment opportunity are the two most important factors determining the respondents’ program choice. 80 percent of respondents said that personal interest is very important when it comes to choosing a post-secondary program while 67 percent said employment opportunity was very important. The program and institution reputation seem to be determinant factors as 43 and 46 percent of respondents, respectively, mentioned they are very important when it comes to choosing a program. Maybe surprisingly, 41 percent of respondents mentioned that the proximity ot the institution is very important. This could suggest that respondent see the implied (monetary and psychological) cost of studying further to home. We might expect that this factor could be more important for students from disadvantaged students and our regression results will inform us about this possibility. Finally, only 12 percent think that parent and friend recommendation are very important.

The next step is to consider the control variables. The average parental (both father and mother) education is 13.6 years, which corresponds roughly to completing a trade certificate or diploma. According to Table 1, the sample used in this study is composed of 41 percent of males, 23 percent of the responses can be identified as a visible minority, and 62 percent of them learned English as their first language. These numbers are in line with the typical post-secondary education population—this is not surprising as the sample is supposed to be representative of this population.

4. Methodology

Reminded that the study is interested in the impact of parents' education level on children's perceived determinants of program choice, as well as the potential gender differences of these impacts, I now state the hypotheses that I plan to test:

Ho1 There is no relationship between parental education level of Canadian postsecondary graduates and the importance of students' determining factors when choosing their programs.

Ho2 There is no gender difference in the influence of fathers' and mothers' education on Canadian postsecondary graduates' on the perceived determining factors when choosing their programs.

In order to test these hypotheses, I use Ordinary Least Squares (OLS) regressions with heteroskedasticity-robust standard errors. For each outcome variable, four model specifications (with different control variables) are estimated. These specifications are detailed below.

4.1 Linear Regression Analysis

This work chiefly is interested into two primarily explanatory variables regarding parental education levels. Therefore, the first specification (the simplest) solely correlates the outcomes of interest with the parental education of the respondents. This is summarized in Equation 1.

1) $\text{Yi} = \alpha + \beta 1 * Father\ education + \beta 2 * Mother\ education + \varepsilon i$

   Here Yi is a dummy outcome variable of interest indicating whether the potential determining factor of program choice is very important. Again these six potential factors are (1) potential employment opportunity, (2) personal interest, (3) parental recommendations, (4) the reputation of programs, (5) the reputation of institutions and (6) the proximity to home. β1 (β2) captures the changes in the probability of considering the factor of program choice to be very important, associated with an increase of one year of father (or mother) education. Each first column of Tables 2-7 presents estimates of the above baseline specification.

   Specification 2 adds typical controls variables to take into account individual characterisitcs such as gender, visible minority status, and linguistic background:

2) $\text{Yi} = \alpha + \beta 1 * Father\ education + \beta 2 * Mother\ education + \beta 3 * Male + \beta 4 * Visible\ minority + \beta 5 * Francophone + \beta 6 * Allophone + \varepsilon i.$

   Here β3 (β4) captures the effect of being a male (visible minority) on the importance of program choice perceived determinant relative to females (Caucasian in a race), while β5 and β6 capture the gaps in the outcome variable between Francophones and Anglophones, and Allophones and Anglophones, respectively. Each second column of Tables 2-7 presents estimates of above baseline.

   Next, in order to test whether there are gender differences in the way father and mother education affect our outcomes of interest, I construct two interaction terms "FAMA" and "MOMA". FAMA (MOMA) is the product of father (mother)

education and the male dummy variable. Thus β7 (or β8) in equation 3) captures the gender difference in the effect of a father (or mother) education on the outcome variable.

3) $\text{Yi} = \alpha + \beta 1 * Father\ education + \beta 2 * Mother\ education + \beta 3 * Male + \beta 4 * Visible\ minority + \beta 5 * Francophone + \beta 6 * Other\ language + \beta 7 * Male * Father\ education + \beta 8 * Male * Mother\ education + \varepsilon i$

Each column 3 of Table 2-7 presents estimates of above baseline.

Finally, in addition to the FAMA and MOMA interaction terms the fourth and most flexible specification interacts all regressors of interest with the male dummy variable:

4) $\text{Yi} = \alpha + \beta 1 * Father\ education + \beta 2 * Mother\ education + \beta 3 * Male + \beta 4 * Visible\ minority + \beta 5 * Francophone + \beta 6 * Other\ language + \beta 7 * Male * Father\ education + \beta 8 * Male * Mother\ education + \beta 9 * Visible\ minority * Male + \beta 10 * Male * Francophone + \beta 11 * Male * Allophone + \varepsilon i.$

The estimation of equation 4) is equivalent to estimating equation 2) separately for males and females (and dropping the male dummy) but has the advantage that we can directly test whether there are significant gender differences in the effect of our regressors. Results of Equation 4 appear in each column 4 of Table 2-7.

5. Results and Discussion

5.1 Parental Education and Importance of Employment Opportunity

I begin by testing the first hypotheses, which mainly focus on the effect parental education on the importance of employment opportunity when choosing a post-secondary program. Columns 1 and 2 suggest that parental education decreases the probability to see employment

opportunity as an important determining factor as both mother and father education coefficient estimates are negative and statistically significant ($p < 0.01$). These results suggest that our first hypothesis (Ho1) is violated in favor of the alternative. Interestingly, the coefficient estimates of father and mother education are very similar once we control for student characteristics (specification 2). They both suggest that increasing parental education by one year decreases the probability to see employment opportunity as an important determining factor when choosing a program by 0.8 percentage points (p.p.). To put things in perspective a student with a father with a university degree would be 3.2 p.p. less likely to see employment opportunity as important than a similar student with a high-school education father, ceteris paribus.

Visible minorities and students with a mother tongue other than English are significantly more likely to report employment opportunity as important. For example, visible minorities are 3.5 p.p. more likely than Anglophones to cite employment opportunity as an important determining factor—this difference is similar to the high-school-university father education gap.

Columns 3 and 4 allow for heterogeneity across gender. Boys and girls seem to be similarly affected by their mother's education as the male*mother education interaction terms is small and statistically insignificant. On the other hand, boys are less affected than girls by their father's education. While the estimated effect for girls is -.86 p.p., it is -.06 p.p. (-.86+.8 p.p.) for boys (and statistically insignificant). These results are evidence that Ho2 does not hold and that there are significant gender differences in the impact of parental education.
Note that none of interaction terms for males and linguistic and racial control variables are statistically significant and the point estimates for the male * parental education are very

similar in columns 3 and 4, which suggests that, for our questions of interest, adding these gender-language and gender-race interaction terms do not add much to the story. It does seem to affect slightly the point estimate for the race and language dummy-variable parameter estimates.

In all cases we can see that the R-squared is small, but note that this is normal as the dependent variable is a binary variable.

5.2 Parental Education and Importance of Personal Interests

Table 3 presents the results for the effect of parental education on the importance of personal interests. In this case, only mother's education seems to affect the probability of reporting personal interests as an important factor when choosing a post-secondary program. This is true for all four specifications. Increasing mother's education by one year, increases the probability of list personal interests as an important factor by 0.4 p.p.

Specification 4 suggests that visible minorities (females and males) are 3.8 p.p. less likely to report personal interests as an important factor while Francophones females (males) are 13.4 p.p. (17.2 p.p.) more likely. These last differences are surprisingly large.

5.3 Parental Education and Importance of Recommendations

Table 4 presents the results for the effect of parental education and the importance of friend/parent recommendations. Maybe surprisingly, parental education does not affect the importance that student put on their recommendations. We don't observe any gender differences, but visible minorities and students with a mother tongue other than English are significantly more likely to report friend/parent recommendations as important. These differences are similar to the ones found when looking at the importance of employment opportunity.

5.4 Parental Education and Importance of Program/Institution Reputation

Given how similar the results are I present both the results for program and institution reputation together. Tables 5 and 6 present these results. Interestingly, parental education seems to reduce the probability of listing program (or institution) reputation as an important determining factor. This is a bit surprising as more educated parents are more likely to have attended a post-secondary institution. One exception here is that, for males, father education does not significantly affect the probability of citing the institution reputation as an important factor.

Again, there are important differences regarding racial and linguistic background. Visible minorities and Allophones (both being more likely to be immigrants) are more likely to consider the reputation of the program or the institution as a determining factor when it comes to choosing a post-secondary program. White Anglophone males are less likely to be concerned with the reputation of the program (-9 p.p.) or institution (-17.7 p.p). On the other hand, white Francophone males are 6.1 (4.4) p.p. more likely than their Anglophone counterparts to mention that the program (institution) reputation is important.

5.4 Parental Education and Importance of Proximity of the Institution

Finally, Table 7 presents the results on the effect of parental education on the importance of the institution proximity. In this case, the results are in line with what we would expect. Given that attending an institution that is far from home might induce additional costs and the higher parental education is associated with high parental income, we would expect parental education to reduce the probability of proximity of the institution as a determining factor (especially if parents/students can be credit constrained). This is what we observe in Table 7.

An extra year of parental education is associated with a 1 p.p. decrease in the probability to cite proximity of the institution as a determining factor.

5.5 Summary of the Results

Overall, except for the importance of friend/parent recommendations, the results suggest that parental education parental affect students' perceived important determining factors of post-secondary program. Higher parental education is associated with putting less importance on future employment opportunities, program/institution reputation, and proximity of the institution. On the other hand, higher parental education is associated with putting more importance on personal interest. These results suggest that students from disadvantaged families may put more importance on the monetary aspects of post-secondary education.

There is some evidence of heterogeneity across gender in the effect of parental education in particular for employment opportunity and institution reputation where father's education seems to affect males differently than females.

Although not related to the main questions of interest, I find important differences in the way visible minorities and students without English as mother tongue evaluate the important determining factors of program choice.

6. Conclusions

This paper investigates the effect of parental education on graduates' determining factors of their specific study field and its potential heterogeneity across gender using the 2013 National Graduate Survey (NGS). Using linear probability models, I find a small but significant effect of parental education on the importance of different aspects of specific post-secondary

program. All the results assess that parental education affects graduates' judgment of preferences on different aspects in specific study fields differently, suggesting students do weight different determining factors differently and that parental education also affect them differently.

One potential caveat of this study is that I assume that the parental schooling is exogenous. It is quite possible that students share unobserved characteristics with their parents such as risk attitude and preferences when it comes to post-secondary educational choice. If these unobserved characteristics are correlated with parental education, then the parental coefficient estimates could capture the effect of these unobserved characteristics. In the case of the gender-parental education interaction terms, I would run into a similar problem if the unobserved characteristics are shared differently for females and males. For example, if males are more likely to share similar unobserved characteristics of their father (or mother) than females. Unfortunately, the data do not provide enough information to find a credible instrument for parental education (that would take different values for father and mother education). A special case that would give me consistent estimator for the gender interaction term coefficient is if the unobserved characteristics had similar correlation across gender. Then the parental education parental education parameter estimates would be inconsistent but we could hope the estimator for the gender interaction term coefficients would be consistent. Nevertheless, even if my estimates are not causal, they are still informative, in a descriptive way.

The results found in this paper suggests that students' socioeconomic background is correlated with the way they choose their post-secondary and there is some evidence that parental education affects females and males differently. If we believe these estimates to be

causal and we want to facilitate intergenerational mobility, then policies providing information regarding potential outcomes of different post-secondary programs to students from disadvantaged background could be a to change their perspectives (or determining factors) on the importance of different characteristics of post-secondary institutions (see, e.g., Bettinger, Long, Oreopoulos, and Sanbonmatsu, 2012).

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Table 1. Summary statistics of variables of interest

	Obs.	Mean	S. D.	Min	Max
Importance in					
Employment Opportunity	13,073	0.67	0.47	0	1
Personal Interest	13,073	0.80	0.40	0	1
Recommendation	13,073	0.12	0.33	0	1
Program	13,073	0.43	0.50	0	1
Institution	13,073	0.46	0.50	0	1
Proximity	13,073	0.41	0.50	0	1
Father Education (Years)	13,073	13.60	3.08	8	18
Mother Education (Years)	13,073	13.58	2.72	8	18
Male	13,073	0.41	0.50	0	1
Visible Minority	13,073	0.23	0.42	0	1
Francophone	13,073	0.18	0.38	0	1
Allophone	13,073	0.20	0.40	0	1
Male*Father education	13,073	5.73	7.08	0	18
Male* Mother education	13,073	5.68	6.97	0	18
Male*Visible minority	13,073	0.11	0.31	0	1
Male*Francophone	13,073	0.07	0.25	0	1
Male*Allophone	13,073	0.10	0.30	0	1

Table 2. Parental education and importance of employment opportunity

VARIABLES	(1) Importance of Employment Opportunity	(2) Importance of Employment Opportunity	(3) Importance of Employment Opportunity	(4) Importance of Employment Opportunity
Father Education (Years)	-0.0070***	-0.0081***	-0.0114***	-0.0113***
	(0.002)	(0.002)	(0.002)	(0.002)
Mother Education (Years)	-0.0095***	-0.0077***	-0.0085***	-0.0086***
	(0.002)	(0.002)	(0.002)	(0.002)
Male		-0.0051	-0.1381***	-0.1462***
		(0.008)	(0.045)	(0.047)
Visible Minority		0.0346***	0.0343***	0.0417**
		(0.013)	(0.013)	(0.017)
Francophone		0.0502***	0.0505***	0.0403***
		(0.011)	(0.011)	(0.014)
Allophone		0.0460***	0.0467***	0.0347**
		(0.013)	(0.013)	(0.018)
Male*Father education			0.0081**	0.0080**
			(0.003)	(0.003)
Male* Mother education			0.0016	0.0018
			(0.004)	(0.004)
Male*Visible minority				-0.0179
				(0.026)
Male*Francophone				0.0258
				(0.023)
Male*Allophone				0.0286
				(0.027)
Constant	0.8896***	0.8567***	0.9106***	0.9133***
	(0.023)	(0.023)	(0.029)	(0.030)
Observations	13,073	13,073	13,073	13,073
R-squared	0.008	0.012	0.013	0.013

Heteroskedasticity-robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 3. Parental education and importance of personal interest

VARIABLES	(1) Importance of Personal Interest	(2) Importance of Personal Interest	(3) Importance of Personal Interest	(4) Importance of Personal Interest
Father Education (Years)	-0.0013	0.0005	0.0000	0.0002
	(0.001)	(0.001)	(0.002)	(0.002)
Mother Education (Years)	0.0039***	0.0035**	0.0039**	0.0036*
	(0.002)	(0.002)	(0.002)	(0.002)
Male		-0.0509***	-0.0515	-0.0713*
		(0.007)	(0.039)	(0.040)
Visible Minority		0.0371***	0.0372***	0.0374***
		(0.011)	(0.011)	(0.014)
Francophone		0.1487***	0.1487***	0.1335***
		(0.007)	(0.007)	(0.008)
Allophone		0.0022	0.0022	-0.0146
		(0.011)	(0.011)	(0.015)
Male*Father education			0.0011	0.0006
			(0.003)	(0.003)
Male* Mother education			-0.0011	-0.0002
			(0.003)	(0.003)
Male*Visible minority				-0.0008
				(0.023)
Male*Francophone				0.0388**
				(0.015)
Male*Allophone				0.0383*
				(0.024)
Constant	0.7689***	0.7539***	0.7540***	0.7608***
	(0.019)	(0.019)	(0.025)	(0.024)
Observations	13,073	13,073	13,073	13,073
R-squared	0.001	0.029	0.029	0.030

Heteroskedasticity-robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4. Parental education and importance of recommendations

VARIABLES	(1) Importance of Recommendation	(2) Importance of Recommendation	(3) Importance of Recommendation	(4) Importance of Recommendation
Father Education (Years)	0.0024**	0.0013	0.0014	0.0012
	(0.001)	(0.001)	(0.001)	(0.001)
Mother Education (Years)	-0.0016	0.0002	-0.0011	-0.0009
	(0.001)	(0.001)	(0.002)	(0.002)
Male		-0.0145**	-0.0535	-0.0462
		(0.006)	(0.033)	(0.033)
Visible Minority		0.0542***	0.0545***	0.0654***
		(0.009)	(0.009)	(0.013)
Francophone		0.0344***	0.0345***	0.0317***
		(0.008)	(0.008)	(0.010)
Allophone		0.0297***	0.0299***	0.0326***
		(0.010)	(0.010)	(0.013)
Male*Father education			-0.0003	0.0002
			(0.002)	(0.002)
Male* Mother education			0.0032	0.0025
			(0.003)	(0.003)
Male*Visible minority				-0.0248
				(0.019)
Male*Francophone				0.0072
				(0.016)
Male*Allophone				-0.0040
				(0.019)
Constant	0.1111***	0.0827***	0.0988***	0.0964***
	(0.016)	(0.016)	(0.022)	(0.022)
Observations	13,073	13,073	13,073	13,073
R-squared	0.000	0.010	0.010	0.010

Heteroskedasticity-robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5. Parental education and importance of program reputation

	(1) Importance of Program	(2) Importance of Program	(3) Importance of Program	(4) Importance of Program
VARIABLES				
Father Education (Years)	-0.0012	-0.0027	-0.0037*	-0.0036*
	(0.002)	(0.002)	(0.002)	(0.002)
Mother Education (Years)	-0.0078***	-0.0052***	-0.0045*	-0.0047*
	(0.002)	(0.002)	(0.002)	(0.002)
Male		-0.0542***	-0.0641	-0.0880*
		(0.009)	(0.048)	(0.050)
Visible Minority		0.0724***	0.0721***	0.0679***
		(0.013)	(0.013)	(0.018)
Francophone		0.0213*	0.0213*	-0.0026
		(0.012)	(0.012)	(0.015)
Allophone		0.0511***	0.0512***	0.0442**
		(0.014)	(0.014)	(0.019)
Male*Father education			0.0027	0.0025
			(0.003)	(0.003)
Male* Mother education			-0.0020	-0.0012
			(0.004)	(0.004)
Male*Visible minority				0.0098
				(0.027)
Male*Francophone				0.0611**
				(0.024)
Male*Allophone				0.0163
				(0.028)
Constant	0.5532***	0.5294***	0.5332***	0.5418***
	(0.024)	(0.024)	(0.031)	(0.032)
Observations	13,073	13,073	13,073	13,073
	0.002	0.012	0.013	0.013

Heteroskedasticity-robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6. Parental education and importance of institution reputation

VARIABLES	(1) Importance of Institution	(2) Importance of Institution	(3) Importance of Institution	(4) Importance of Institution
Father Education (Years)	-0.0010	-0.0028*	-0.0057***	-0.0055**
	(0.002)	(0.002)	(0.002)	(0.002)
Mother Education (Years)	-0.0112***	-0.0082***	-0.0078***	-0.0080***
	(0.002)	(0.002)	(0.002)	(0.002)
Male		-0.0745***	-0.1563***	-0.1765***
		(0.009)	(0.048)	(0.050)
Visible Minority		0.0718***	0.0713***	0.0719***
		(0.013)	(0.013)	(0.018)
Francophone		0.0066	0.0067	-0.0106
		(0.012)	(0.012)	(0.015)
Allophone		0.0746***	0.0751***	0.0594***
		(0.014)	(0.014)	(0.019)
Male*Father education			0.0074**	0.0070**
			(0.003)	(0.003)
Male* Mother education			-0.0014	-0.0006
			(0.004)	(0.004)
Male*Visible minority				-0.0023
				(0.027)
Male*Francophone				0.0443*
				(0.024)
Male*Allophone				0.0360
				(0.028)
Constant	0.6259***	0.6070***	0.6399***	0.6469***
	(0.024)	(0.024)	(0.031)	(0.031)
Observations	13,073	13,073	13,073	13,073
R-squared	0.004	0.020	0.020	0.021

Heteroskedasticity-robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7. Parental education and importance of proximity to home

VARIABLES	(1) Importance of Proximity to Home	(2) Importance of Proximity to Home	(3) Importance of Proximity to Home	(4) Importance of Proximity to Home
Father Education (Years)	-0.0097***	-0.0075***	-0.0095***	-0.0098***
	(0.002)	(0.002)	(0.002)	(0.002)
Mother Education (Years)	-0.0083***	-0.0099***	-0.0087***	-0.0085***
	(0.002)	(0.002)	(0.002)	(0.002)
Male		-0.0453***	-0.0716	-0.0677
		(0.009)	(0.048)	(0.049)
Visible Minority		-0.0103	-0.0109	-0.0152
		(0.013)	(0.013)	(0.017)
Francophone		0.0360***	0.0360***	0.0318**
		(0.012)	(0.012)	(0.015)
Allophone		-0.0778***	-0.0776***	-0.0577***
		(0.014)	(0.014)	(0.018)
Male*Father education			0.0051	0.0058*
			(0.003)	(0.003)
Male* Mother education			-0.0032	-0.0038
			(0.004)	(0.004)
Male*Visible minority				0.0124
				(0.026)
Male*Francophone				0.0109
				(0.024)
Male*Allophone				-0.0446
				(0.027)
Constant	0.6527***	0.6760***	0.6863***	0.6855***
	(0.023)	(0.024)	(0.031)	(0.031)
Observations	13,073	13,073	13,073	13,073
R-squared	0.009	0.018	0.018	0.018

Heteroskedasticity-robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1