Canadian Journal of Regional Science
Revue canadienne des sciences régionales

Immigrant access to work in Montreal and Toronto

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We would like to thank Mikal Skuterud, participants at the Canadian Economic Association 2010 meeting, three anonymous referees and the editor of this Journal for their help and advice. All mistakes are our own.

Received 7 January 2011. Accepted 29 September 2011.

Grenier, G, & Nadeau, S. 2011. Immigrant access to work in Montreal and Toronto. *Canadian Journal of Regional Science / Revue canadienne des sciences régionales 34(1),* 19-32.

A main reason why the employment rate gap between immigrants and Canadian born individuals is larger in Montreal than in Toronto is language: relative to Canadian born individuals, immigrants in Montreal are significantly less likely to know French than their Toronto counterparts to know English and their knowledge of French is less rewarded than their Toronto counterparts' knowledge of English. Another possible reason is labour market discrimination. However, this discrimination would be French language related as opposed to being ethnicity/place of birth related. As a matter of fact, holding other factors constant, the performance of immigrants according to their countries of origin in Montreal is remarkably comparable to that in Toronto. Results are generally similar for both male and female immigrants.

Une raison importante de l'écart de taux d'emploi entre les immigrants et les personnes nées au Canada qui est plus grand à Montréal qu'à Toronto est la langue: par rapport aux Canadiens de naissance, les immigrants à Montréal sont beaucoup moins susceptibles de connaître le français que leurs homologues à Toronto de connaître l'anglais, et leur connaissance du français est moins récompensée que la connaissance de l'anglais des immigrants à Toronto. Une autre raison possible est la discrimination sur le marché du travail. Toutefois, cette discrimination serait liée à la langue française plutôt qu'à l'ethnicité. En effet, toutes choses égales par ailleurs, la performance des immigrants selon le pays d'origine est remarquablement similaire à Montréal et à Toronto. Les résultats sont généralement similaires pour les hommes et pour les femmes

Statistics Canada estimates that net international immigration contributed about two-thirds of Canada's population growth between 2001 and 2006, and that, by about 2030, it could become the only source of population growth (Statistics Canada 2007). While increasing immigration may not be the panacea to Canada's population aging challenges that it is sometimes argued to be,[1] it has been and probably will remain a pillar of Canada's labour market strategy for the foreseeable future.[2] In that context, important questions for policy analysis are whether or not immigrants are well integrated in the labour market and, if not, why?

As a province of Canada, Quebec has demographic characteristics similar to the rest of the country. Across Canada, immigration is seen as an important element in the labour market, but Quebec faces a special challenge because it has to integrate immigrants into a culture different from the dominant one on the continent. While immigrants in the rest of Canada are thought to readily assimilate to the English language, those in Quebec often face a situation where English and French are in competition. This has the potential to create different outcomes in terms of the economic integration of immigrants.

It has recently been noticed that immigrants in Quebec may not perform as well as immigrants elsewhere in Canada compared to their Canadian born counterparts.[3] Two key measures of labour market integration for immigrants are the employment rate gap (the difference in employment rates between immigrants and Canadian born) and the wage gap (the relative difference in average wages between immigrants and Canadian born). Most studies focus on the wage gap.[4] They find that the wage gap between Canadian born and immigrant workers is due mainly to immigrants' poorer language skills and the lack of recognition of immigrants' foreign experience and education. Discrimination is generally not ruled out. This paper focuses instead on the employment rate gap. Indeed, if one characterizes migration as an investment decision in a risk-return framework wherein return is measured by wage, and risk is measured inversely by the employment rate, previous papers compare the difference in returns while this paper compares the difference in risk to migration. We analyze and compare the employment rate gap between immigrants and Canadian born individuals in the Montreal and Toronto metropolitan area.[5] Those regions are the main places of settlement of immigrants in Quebec and in the rest of Canada (ROC). The focus is on employment, rather than on wages, because we observe (see below) that it is immigrant access to work relative to Canadian born individuals that is lower in Montreal than in Toronto: in contrast, the wage gap is actually slightly larger in Toronto than in Montreal.

From a policy point of view, understanding labour market outcomes can be useful for Quebec for two reasons. First, since Quebec's population is aging more rapidly than that of ROC, successful integration of immigrants in Quebec is even more important than in ROC. It is ironic that the place in Canada where immigration could provide the largest economic benefit is the one where immigrants have performed poorly. Second, since Quebec has a different immigration policy than ROC, it is important for Quebec to un-

Table 1. Characteristics of immigrant and Canadian-born individuals

	Males				*Females*			
	Montreal		*Toronto*		*Montreal*		*Toronto*	
	Can. born	*Immi-grant*	*Can. born*	*Immi-grant*	*Can. born*	*Immi-grant*	*Can. born*	*Immi-grant*
Proportion of population (%)	77	23	49	51	78	22	47	53
EM (%)	57	50	60	58	45	34	47	41
EX (years)	22	25	20	25	23	24	20	25
HE								
No certificate (%)	15	16	12	13	13	18	9	15
High School certificate (%)	23	19	30	24	24	20	29	25
College/Trade certificate (%)	36	26	26	23	34	26	26	23
Univ. diploma/certificate (%)	5	7	4	7	6	8	5	8
Bachelor degree (%)	16	20	22	22	18	20	26	21
Masters or Ph.D. (%)	5	12	7	10	5	8	6	7
HL								
English (%)	16	20	96	46	16	19	96	46
French (%)	82	31	1	0	83	28	1	1
Other (%)	2	51	4	54	2	53	3	53
MA (%)	56	68	51	71	57	65	53	68
OL								
English only (%)	3	18	89	91	2	19	85	89
French only (%)	32	18	0	0	40	26	0	0
English and French (%)	65	62	11	5	58	52	15	6
None (%)	0	2	0	4	0	4	0	6
PC								
Youngest under 2 (%)	5	8	6	7	5	8	6	7
Youngest 2 to 15 (%)	19	26	19	28	22	30	22	29
Youngest older than 15 (%)	10	14	8	17	12	16	11	18
SC (%)	18	19	20	15	20	21	22	17
Sample size (thousands)	170	50	147	155	178	50	149	169

Source: Calculated by authors using the 2006 Census Microdata Master File

derstand if Montreal is less effective in attracting successful immigrants than Toronto so that it can adjust its selection criteria accordingly, if possible. We investigate a number of explanations in that regard, including: the extent to which immigrants in Montreal have poorer languages skills than immigrants in Toronto; the extent to which immigrants in Montreal have less transferable human capital than immigrants in Toronto because of their countries of origin; whether Quebec's immigration policy puts too much emphasis on French skills and not enough on "other skills;" and the extent to which immigrants might be more discriminated against in Montreal than in Toronto.

This paper is organized as follows. We describe the model, the data used, and discuss summary statistics. We propose explanations for the observed difference. We present a variant of the Blinder-Oaxaca decomposition method to statistically validate these explanations. We then present empirical results and draw conclusions.

Model, data, and summary Statistics

This paper is built around an equation that predicts, for individuals in a labour market, the likelihood of working full-time full-year. Since such participation is an outcome of the local labour market and therefore reflects considerations of both demand and supply, the estimated equation therefore is a reduced form. For each gender, four linear equations are estimated: one Canadian-born worker equation and one immigrant worker equation for each labour market. Let the superscripts B and I, and the subscripts M and T, respectively denote Canadian-born, immigrant, Montreal and Toronto. Then, assuming linear probability models, for a given census year, in Montreal say, the employment rates of Canadian born workers and immigrant workers can be respectively expressed as Equations (1) and (2) where β and γ are vectors of OLS estimated coefficients: see Box 1.

In equation (1), the explanatory vector X includes variables that affect the probability that anyone works full-time full-year As an analytical framework, we can think of a person holding a job full-time full-year if the wage offered on the market is greater than that person's reservation wage. The offered wage depends on a person's value in the labour market, which is related basically to human capital. Therefore, all the variables that usually enter a human capital earnings function should be included in the employment equation (e.g., education, experience, language skills). The reservation wage depends on a person's preferences and budget constraints. It is related to family characteristics that can affect the decision to seek full-time full-year work, such as the number and age of children at home and the availability of other sources of income.[6] Some of the variables that affect the offered wage can also affect the reservation wage, so that what we basically estimate is, in this second sense also a reduced form equation. In other words, in our empirical model, the proportion of individuals working full-time is a joint outcome of supply side factors and demand side factors and, as a result, it may be difficult to unravel the effect of any one factor.

Concerning the language characteristics, we include both the ability to speak the two official languages and the language spoken at home, whether it is English, French or a non-official language. The rationale for using those two variables is that in Canada—what is generally key is whether a worker can speak at least one official language—controlling for the language spoken at home is an indirect way of assessing fluency in speaking that official language. For example, we would expect that immigrants who speak French at home in Montreal would be more fluent in French than those who speak either English or another language at home, and would therefore be more likely to be employed full-time. We would also expect

Table 2. For immigrants, distribution by country of birth (in percent)

	Males		*Females*	
	Montreal	*Toronto*	*Montreal*	*Toronto*
United States of America	1.9	1.4	2.1	1.6
Central America	4.1	1.3	4.0	1.3
Haiti	7.1	0.1	9.2	0.1
Jamaica	0.6	3.9	0.9	5.1
Trinidad	0.6	2.0	0.7	2.4
Other Caribbean	1.5	1.4	2.1	1.7
Guyana	0.4	3.2	0.4	3.5
Other South America	5.0	2.7	5.5	2.8
France	5.7	0.2	5.2	0.3
Germany	0.8	0.9	0.8	0.9
Other Western Europe	1.4	0.7	1.4	0.6
Romania	3.2	1.1	3.2	1.1
Poland	1.3	3.1	1.7	3.1
Ukraine	0.5	1.0	0.6	1.1
Russia	1.1	1.3	1.2	1.3
Hungary	0.3	0.4	0.3	0.5
Other Eastern Europe	1.2	1.2	1.1	1.2
United Kingdom	1.5	4.9	1.4	4.7
Other Northern Europe	0.2	0.5	0.3	0.5
Greece	2.3	1.2	2.3	1.1
Italy	6.3	4.5	5.8	3.9
Portugal	2.6	3.7	2.7	3.4
Other Southern Europe	1.3	2.7	1.3	2.5
West Africa	1.5	1.2	1.1	1.0
East Africa	1.7	2.5	1.6	2.7
Algeria	4.1	0.0	3.1	0.0
Egypt	2.0	0.7	1.8	0.5
Morocco	4.9	0.2	4.0	0.1
Other Northern Africa	2.5	0.4	1.9	0.3
Southern Africa	0.1	0.6	0.1	0.6
Lebanon	5.6	0.6	4.5	0.5
Afghanistan	0.5	0.8	0.5	0.8
Iran	1.4	2.3	1.1	2.0
Iraq	0.3	0.7	0.3	0.6
Other West Central Asia	4.3	2.4	4.1	2.0
China	4.0	7.3	4.4	7.7
Hong Kong	0.9	5.3	0.9	5.3
South Korea	0.4	1.7	0.5	1.7
Taiwan	0.4	0.7	0.5	0.8
Other East Asia	0.1	0.3	0.2	0.3
Philippines	1.8	5.1	3.2	6.7
Vietnam	3.6	3.1	3.7	3.1
Other South East Asia	2.3	1.2	2.3	1.3
India	2.4	10.2	2.2	9.3
Sri Lanka	1.6	4.2	1.4	3.7
Pakistan	1.3	3.8	1.1	3.2
Bangladesh	1.2	0.9	1.0	0.7
Other	0.1	0.4	0.1	0.3

Source: Calculated by authors using the 2006 Census Microdata Master

to observe a similar pattern for immigrants who speak English in Toronto.

In a similar way, Y in equation (2) denotes a vector of characteristics (e.g., source country, years since immigration, Canadian citizenship, location of highest degree) that are thought to also affect the likelihood of working full-year full-time among immigrants.

The data for our analysis come from the Statistics Canada 2006 Census Microdata Master File that contains census data for 20 per cent of the population. In the Master File, all countries of origin of immigrants appear individually in the database, as opposed to being aggregated as in the Public Use data files. The sample is restricted to working age men and women living in the metropolitan areas of Montreal and Toronto aged 18 through 64. The sample excludes non-permanent residents (foreign students, workers with temporary permits and those waiting to receive the status of refugee).

Dependent variable

EM Work status: EM is 1 if the individual worked full-time full-year in 2005, and 0 otherwise. Full-year is defined as 48 weeks or more. We make use of the question in the Census that asks whether the weeks worked in 2005 were mainly full-time or part-time. Workers here include persons self-employed. Because our definition of work status assessed for the year 2005, our sample excludes immigrants who arrived in 2005 and 2006.

X variables (applicable to everyone)

EX Work experience: As the 2006 census does not provide a way of calculating work experience directly, In this paper, EX is simply age minus 18. Our models allow the employment rate to vary with EX and its square.

HE Highest education: defined on the basis of the highest certificate, degree or diploma. HE has six categories: (1) no certificate, (2) high school graduation certificate or equivalent, (3) trade, apprenticeship, college or CEGEP certificate or diploma, (4) university certificate or diploma below bachelor level, (5) university bachelor level and (6) masters or doctorate (including medicine, dentistry and similar programs).

HL Language spoken most often at home. In the Census, multiple answers (such as English and French) are allowed to that question and there is also a sub-question about a possible second language used regularly at home, which also allows multiple answers. Here we

Table 3. Comparative indicators of the labour market integration of immigrants, Montreal and Toronto metropolitan areas, 2005

	Males				Females			
	Employment Rate Gap[a]	|t|	*Wage Gap*[b]	|t|	*Employment Rate Gap*[a]	|t|	*Wage Gap*[b]	|t|
Montreal	-0.07	25.2	-0.26	38.1	-0.11	40.9	-0.22	29.4
Toronto	-0.02	8.5	-0.28	62.4	-0.05	27.5	-0.28	62.4
Difference	-0.06	15.9	+0.02	3.0	-0.06	17.2	+0.06	6.6

Notes: [a] Simple difference between the mean full-time full-year employment rate of immigrants and that of Canadian born. [b] Simple difference between the mean log of weekly wages of immigrant full-time full-year workers and that of Canadian born full-time full-year workers.

Source: Authors' calculations from Statistics Canada 2006 census data.

code based only on the first part (the sub-question is not used) and allocate multiple answers to the lower status language, with English having the highest status, French being second, and the non-official languages being third. For example, the response "English and French" is allocated to French, and the response "French and a non-official language" is allocated to the non-official languages. HL consists of three categories: (1) English, (2) French, and (3) a non-official language.

MA Marital status: MA is 1 if person married, and 0 for all other marital statuses (single, widowed, separated, or divorced).

OL Knowledge of official languages. The categories are (1) English only, (2) French only, (3) both English and French, and (4) neither English nor French.

OT Other income: OT is the total income of the census family minus the person's earnings (self-employment income, wages and salaries) in 2005 in thousands of dollars.

PC Presence of children: This variable has the following categories: (1) no children present, (2) youngest child under 2 years, (3) youngest 2 to 15, and (4) youngest older than 15.

SC School status: SC is 1 if an individual attended school during the nine months prior to the census, and 0 otherwise.

X variables (for immigrants only)

CI Citizenship. Here, CI is 1 if immigrant is a Canadian citizen by 2006, and 0 otherwise. Why does citizenship increase the likelihood of full-time full-year work? One is because it widens the immigrant's job market (for example, in Canada, citizenship is required for all Canadian federal jobs and it allows foreign-born Canadian residents to obtain TN visas to work in the U.S.). Alternatively, it may provide a signal of stability to the employers—reflecting a commitment to stay in Canada and to acquire additional skills valued in Canada's labour market. In addition, citizenship may be correlated with full-time full-year work because of unmeasured characteristics of those who become citizens. A number of empirical studies show that citizenship increases total earnings (a proxy for full-time full-year work) even after correcting for length of time since immigration.[7]

LO Location of highest degree (if immigrant holds at a post-secondary diploma/degree). A key determinant in the labour market integration of immigrants in Canada is the relative quality of education: see Sweetman (2004). To take account of the possibility that a degree earned in a foreign country may not be recognized by Canadian employers as much as a diploma/degree earned in Canada, LO is 1 if diploma/de-gree was received in a foreign country, and 0 otherwise (i.e., diploma/degree received in Canada or no university education).

PL Place of birth. Differences in culture, tradition and religion could have an effect on the employment rate of immigrants, both through the offered wage (if there is discrimination) and the reservation wage (if preferences towards work vary). For this analysis 48 countries or groups of countries are defined. We identify as many specific countries as possible; the others are aggregated based on the region of the world. In practice, the first 15 countries in terms of the number of immigrants are specifically identified in Montreal and the first 25 in Toronto (because Toronto has a larger immigrant population). A few other countries are also identified if the sample is large enough. For example, there are very few immigrants from Haiti in Toronto, but they are identified because that country is an important source of immigration in Montreal. Because of the large number of observations, sample size for each place of birth is reasonable (the smallest sample size for a specific place of birth is 72 for female immigrants from Algeria in Toronto).

YE Years since immigration. YE is 2005 minus year landed immigrant status was first granted. To reflect the possibility that while the labour market integration of immigrants at the time of immigration may fall short of that of similarly skilled Canadian born individuals, it can catch up over time, we allow for the employment rate of immigrants to vary with YE and its square.[8]

Summary statistics

Key statistical characteristics of the samples are reported in Table 1 and Table 2. The samples are divided between males and females, Canadian born and immigrants, and Montreal and Toronto. Among the many features that are shown, two facts from Table 1 and Table 2 will play a key role

Table 4. Male employment rate gap by place of birth, 2006

Ten most common countries of origin (in descending order)					
	Gap[b] Montreal[a]	|t|		*Gap[b] Toronto[c]*	|t|
1. Haiti	-0.08	7.95	1. India	0.00	1.15
2. Italy	-0.01	1.45	2. China	-0.10	18.4
3. France	0.01	0.74	3. Hong Kong	-0.04	6.69
4. Lebanon	-0.07	6.60	4. Philippines	0.04	7.03
5. Morocco	-0.15	13.7	5. U.K.	0.08	13.1
6. Algeria	-0.18	14.7	6. Italy	0.02	3.70
7. China	-0.18	14.6	7. Sri Lanka	-0.03	4.52
8. Vietnam	-0.04	3.39	8. Jamaica	-0.02	2.13
9. Romania	-0.06	4.30	9. Pakistan	-0.09	12.2
10. Portugal	0.05	3.16	10. Portugal	0.02	2.38

Notes: [a] 47 percent of all immigrants in Montreal. [b] Average employment rate of immigrant workers minus average employment rate of Canadian born workers. [c] Represent 53 percent of all immigrants in Toronto.

Source: Authors' compilations from Statistics Canada census data.

in our analysis. First, immigrants in Toronto are more likely to know the predominant language of work where they live than immigrants in Montreal. For example, 96 percent of male immigrants living in Toronto know English compared with 80 percent of male immigrants knowing French in Montreal. Second, immigrants in Toronto come from different countries than those in Montreal. For example, compared with male immigrants in Montreal, male immigrants in Toronto are more than twice as likely to come from East and South-East Asia (45 percent compared with 20 percent) and half as likely to come from Africa, the Middle East and Western Central Asia (12 percent compared with 29 percent).

Table 3 reports indicators of the integration of immigrants in the Montreal and Toronto labour markets in 2005, for both males and females. The indicators are expressed as differences between the values for immigrants and those for Canadian born; a negative entry meaning a disadvantage for immigrants. A couple of observations are in order. First, as has been pointed out elsewhere,[9] immigrants in both metropolitan areas are significantly less likely to work full-time full-year than their Canadian born counterparts, and when they work, they earn considerably less than the latter (for example, in Montreal, male immigrants are 7 percent less likely to work full-time full-year and earn almost 26 percent less than their Canadian born counterparts). Second, relative to Canadian born, immigrants are much less likely to work full-time full-year in Montreal than in Toronto (almost 6 percentage points less likely in fact, as shown in the bottom row of Table 3). In contrast, the wage gap between immigrants and Canadian born individuals is actually smaller in Montreal than in Toronto.

Explaining the employment rate gap

Conceptually, one would expect that the employment rate gap would be affected by some of the same factors as the wage gap. Therefore, based on the literature on the sources of the wage gap, we can think of at least four reasons why immigrants could have more difficulty finding full-time full-year work in Montreal than in Toronto.

First, there is the language issue. Increasingly, knowledge of French is important to be economically successful in Quebec.[10] While the proportion of immigrants who can speak French in Quebec has significantly increased over the last thirty years,[11] compared to Canadian born individuals, there are still fewer immigrants who can speak French in Montreal than there are who can speak English in Toronto. For example, according to Table 1, 80 percent of male immigrants in Montreal can speak French (compared to 98 percent of Canadian born males) while 96 percent of male immigrants in Toronto can speak English (compared to almost 100 percent of Canadian born males). These results suggest that immigrants may not meet the language requirements of Montreal's labour market as well as they meet those of Toronto's, which could explain some of the differential between the employment rate gap in Montreal and that in Toronto.[12]

Second, the employment rate gap in Montreal might be larger than that in Toronto because of the different countries of origin of immigrants. Because of its language situation, Quebec has always attracted fewer immigrants from countries that have cultures and education systems very similar to those of the rest of Canada (countries such as the U.S. and U.K.). Among the more recent cohorts, there are also fewer immigrants in Quebec from Asia and more from Africa than in the rest of Canada: see Boudarbat & Boulet (2010). In consequence, the skills that immigrants in Montreal have acquired in their countries of origin may be less transferable than those of immigrants in Toronto.[13] This theory gets some credence if we compare the gross employment rates of immigrants by place of birth. Indeed, according to Table 4, male immigrants from eight out of the 10 most common countries of origin in Montreal have lower employment rates than their Canadian born counterparts, while the equivalent figure is five in Toronto.

A third possible reason is that the government of Quebec has an important say in immigration policy, while in the rest of Canada (ROC), the Federal Government has until recently been the sole voice of that policy. There are three main classes of immigrants in Canada: the independent class, the family reunification class and the refugee class. Individuals in the first class as often labeled economic immigrants, while those in the latter two classes are labeled non-economic immigrants. Indeed, since the Cullen-Couture agreement of 1978, Quebec has been using its own points system to select independent immigrants, taking into account various economic and social factors to assess their potential ability to integrate and prosper in the

TABLE 5. Selection Grids for Skilled Workers (Maximum Number of Points)

	Circa 2003[a]		*Fall 2009*[b]	
	Canada	*Quebec*	*Canada*	*Quebec*
Schooling	25	11	25	28
Assured employment	15	15	10	10
Work experience	21	10	21	8
Adaptability[c]			10	6
Age	10	10	10	16
Knowledge of English (French) for Canada (Quebec)	16	18	16	16
Knowledge of French (English) for Canada (Quebec)	8	6	8	6
Spouse's schooling	5	5		16
Family or friends in Canada (Quebec)	5			8
Children				8
Financial autonomy				1
Total	105	75	100	123
Pass	75	58	67	63

Note: [c]Includes points for Spouse's Schooling for Canada in 2009.

Source: [a]DeVoretz and Pivninko (2008). [b]Citizenship and Immigration Canada (2010) and Immigration et Communautés Culturelles Québec (2010).

province.[14] And, since the Canada-Quebec Accord Immigration Accord in 1991, Quebec has had sole responsibility to select all independent immigrants and refugees who want to live in that province.[15] While Quebec's selection criteria have many of the same features as Canada's selection criteria, they differ in several respects. A key difference is that Quebec has historically put more importance on the knowledge of French upon prospective immigrants than Canada. For example, currently, under Quebec's selection grid for independent immigrants, the knowledge of French accounts for about 25 per cent of the passing grade while under Canada's selection grid, it accounts for about 12 per cent (see Table 5). Also, in the past Quebec put relatively less weight on education and workplace experience and more weight on certain occupations than Canada in selecting its immigrants. Because of these differences, Quebec might have been less effective in attracting successful immigrants than the ROC, which could help explain the larger employment rate gap in Montreal.[16]

Finally, a fourth possible reason is discrimination. Some studies hint at the possibility that immigrants may be discriminated against in Canada in general and in Quebec in particular.[17] In light of the Bouchard-Taylor Commission, the "reasonable accommodation crisis," and the recent burka ban for public employees in Quebec, and the way these matters have sometimes been portrayed in media outside Quebec, a legitimate issue is whether immigrants could be more discriminated against in Montreal than in Toronto.[18]

Another possible explanation for the larger employment rate gap in Montreal than in Toronto might be the difference in labour market institutions. According to Antecol, Kuhn & Trejo (2003), the employment rate gap should be larger in jurisdictions (such as Montreal) with higher unionization rates and more generous welfare income support programs (see Statistics Canada 2006 for information on provincial unionization rates and National Council of Welfare 2006 for information on provincial welfare income support). While this explanation seems to be supported by the data (see Table 3 and Table 1, which shows that even Canadian born individuals have a lower employment rate in Montreal than in Toronto), its relative significance cannot be distinguished from that of other factors because of statistical identification issues and is therefore not assessed in this paper.

Statistical framework and estimation

The statistical framework used in this paper is based on the well-known Blinder-Oaxaca decomposition method.[19] We assume that the labour market in Montreal is different than that in Toronto. Furthermore, we allow for the possibility that the employment determination process within these markets is different between immigrant and Canadian born individuals and between males and females as is customary in the labour economics literature where sample size permits.[20] Thus, we assume a total of eight distinct labour markets.

Our models allow the employment rate to vary with EX and its square. To reflect the possibility that while the labour market integration of immigrants at the time of immigration may fall short of that of similarly skilled Canadian born individuals, it can catch up over time (see Chiswick 1978, Bloom, Grenier and Gunderson 1995), we allow for the employment rate of immigrants to vary with YE and its square.

Alternatives to assuming linear probability models would be to assume probit or logit models. However, for our purpose, the former presents at least two advantages over the latter. One is that Blinder-Oaxaca decompositions are computationally significantly less demanding under linear probability models than under the alternatives, which is a serious consideration in our case as we are dealing with a sample size in excess of one million observations of close to one hundred variables. Another advantages is that the Blinder-Oaxaca decomposition has more attractive properties under linear probability models than under probit or logit models. In particular, the results of the decomposition do not depend on the ordering of the variables (see Fairlie 2005) and the predicted probabilities evaluated at the means of the independent variables are equal to the sample probabilities. We believe that these advantages outweigh the lower statistical efficiency of linear probability models (especially in the context where the loss in efficiency is probably minimal in the

Box 1. Equations

$$p_M^B = X_M^B \beta_M^B \quad (1)$$

$$p_M^I = X_M^I \beta_M^I + Y_M \gamma_M \quad (2)$$

$$(p_M^I - p_M^B) = (X_M^I - X_M^B)\beta_M^B + X_M^I(\beta_M^I - \beta_M^B) + Y_M \gamma_M \quad (3)$$

$$(p_M^I - p_M^B) - (p_T^I - p_T^B) = \left\{(X_M^I - X_M^B)\beta_M^B - (X_T^I - X_T^B)\beta_T^B\right\} + \left\{X_M^I(\beta_M^I - \beta_M^B) - X_T^I(\beta_T^I - \beta_T^B)\right\} + \left\{Y_M \gamma_M - Y_T \gamma_T\right\} \quad (4)$$

first place given the very large sample size).

As a result, the employment rate gap within a labour market, Montreal's labour market for example, can be decomposed as into three components: see Equation (3). The first term in the decomposition (3) is the explained component of the employment rate gap. This component measures the portion of the employment rate gap due to differences between the observed attributes of immigrants and those of Canadian born workers, evaluated with the coefficients of the latter.[21] The second term in equation (3) is the unexplained component of the employment rate gap. The third term reflects the impact of immigrant specific characteristics. Given equation (3), the difference between the employment rate gaps in Montreal and Toronto can be decomposed as in Equation (4) where the terms between the first, second and third set of braces respectively correspond to the difference in the explained, unexplained and immigrant specific effect components of the Montreal-Toronto employment rate gaps.

The coefficient estimates of the human capital and family related variables in the regressions are generally of the same signs as those reported elsewhere in the literature: see Tables 6 and 7.[22] Of particular interest are the magnitudes of the coefficient estimates of the Knowledge of official languages, Place of birth, and Citizenship variables. According to Table 6, beside school attendance, the most important determinant of whether an immigrant works full-time full-year is the knowledge of the language prevailing in the relevant metropolitan area. Indeed, in Montreal, a male immigrant is 10 percentage points less likely to be employed if he cannot speak either French or English (the equivalent figure is 5 percentage points for female immigrants). Likewise, in Toronto, an immigrant (whether male or female) who does not know English is 10 percentage points less likely to be employed. [23]

The degree of fluency in an official language seems also to significantly increase an immigrant's probability of being employed. As a point of fact, in Montreal, an immigrant (whether male or female) who does not speak either official language at home is 4 percent less likely to be employed full-time (the equivalent figures are 3 percent for males and 5 percent for females in Toronto).

With regards to the coefficients of the Place of birth variables (see Table 7), we observe that controlling for human capital and family situation variables can significantly alter the perception we have of the employment performance of certain immigrant groups. A case in point is that of male immigrants from Haiti living in Montreal. If we compare gross employment rates, we find that they are on average 8 percentage points less likely to work full-time full-year than their Canadian born counterparts (see Table 4). However, once we control for standard determinants of employment, we find that statistically speaking, they perform as well as their Canadian born counterparts: according to Table 7, male immigrants from Haiti in Montreal are only 2 percentage points less likely on average to be employed than similarly skilled Canadian born males: statistically insignificant.

The employment rate of immigrants significantly varies across countries of origin, even after controlling for standard determinants of employment. However, there are some common themes. One of them is that except for female Russian immigrants in Montreal, statistically speaking, immigrants from Europe perform as well as or better than similarly skilled Canadian born individuals (whether males or females, and whether in Montreal or Toronto). Immigrants from India also perform well across the board.

Our last observation about the estimated coefficients concerns CI. As expected, being a Canadian citizen helps in finding full-time full-year work. However, what is surprising is the magnitude of this effect. As a point of comparison, all other things being the same, being a Canadian citizen increases the likelihood of working full-time full-year for a male immigrant by at least three times as much as that of having graduated from a Canadian university (as opposed to having graduated from a foreign institution).

Decomposing the employment rate gap

We first discuss the sources of the employment rate gap in Montreal and that in Toronto; we then examine differences between the two labour markets in that respect.[24]

Sources of the employment rate gap in Montreal

Selected elements of the decomposition (3) for the employment rate gap in Montreal are reported in Table 8. The sources of the employment rate gap for males (top panel) are similar to those for female workers (bottom panel). A major reason why the em-

Table 6. Linear Probability Regression Model Coefficients—Common Regressors

	Males								*Females*							
	Montreal				*Toronto*				*Montreal*				*Toronto*			
	Canadian born		*Immigrant*		*Canadian born*		*Immigrant*		*Canadian born*		*Immigrant*		*Canadian born*		*Immigrant*	
	Coef.	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*	*Coef.*	*|t|*
Constant	0.19	17.9	0.16	7.7	0.25	52.2	0.18	15.2	0.15	16.8	0.05	2.5	0.24	47.8	0.08	6.9
EX	0.03	54.3	0.02	23.9	0.04	53.7	0.03	52.9	0.04	84.1	0.03	29.8	0.04	80.5	0.03	62.8
$EX^2/100$	-0.08	63.6	-0.05	27.3	-0.08	76.6	-0.06	57.6	-0.09	95.8	-0.06	34.0	-0.09	84.1	-0.07	68.7
HE (Reference: H.S. certificate)																
No certificate	-0.09	20.6	-0.03	3.2	-0.09	20.1	-0.04	8.3	-0.14	33.8	-0.05	7.0	-0.10	19.3	-0.07	15.4
College/Trade cert.	0.02	4.7	0.04	4.7	0.05	15.3	0.07	16.2	0.03	8.4	0.06	7.6	0.05	13.9	0.06	16.3
Univ. diploma/cert.	0.04	6.2	0.05	4.7	0.05	7.0	0.07	12.6	0.08	14.4	0.09	8.7	0.05	7.9	0.08	15.2
Bachelor's degree	0.07	17.5	0.07	8.4	0.08	22.9	0.10	22.8	0.08	21.7	0.10	12.1	0.08	21.3	0.12	26.8
Masters or Ph.D.	0.05	8.9	0.09	9.2	0.07	13.4	0.11	19.7	0.08	12.1	0.12	11.5	0.10	16.8	0.14	23.1
HL (Reference: English)																
French	0.02	5.1	-0.01	0.6	0.02	1.2	0.02	0.9	0.05	12.5	0.00	0.4	0.02	1.1	0.03	1.4
Other	-0.03	3.2	-0.04	5.2	-0.03	3.8	-0.03	9.7	-0.02	1.8	-0.04	4.6	-0.04	4.9	-0.05	14.9
MA	0.15	43.1	0.12	18.0	0.14	39.5	0.12	27.8	0.04	11.7	0.03	6.1	0.03	7.3	0.02	5.2
OL (Reference: English only)																
French only	0.07	8.4	0.00	0.4	0.07	1.0	-0.19	3.6	0.05	5.5	0.00	0.5	-0.09	1.5	-0.09	2.5
English and French	0.10	11.7	0.06	7.4	-0.01	2.6	-0.01	1.8	0.09	10.8	0.07	10.1	-0.01	2.9	0.00	0.8
None	-0.12	2.3	-0.10	5.3	-0.15	3.4	-0.10	12.2	-0.04	0.8	-0.05	4.0	-0.13	2.6	-0.09	16.0
OT/100	-0.04	4.2	-0.04	5.1	-0.01	6.7	-0.01	1.7	-0.04	12.6	-0.02	5.8	-0.02	9.4	-0.01	4.5
PC (Reference: No children)																
Youngest under 2	0.03	5.1	-0.02	1.7	0.05	8.7	0.03	4.6	-0.32	56.1	-0.23	26.6	-0.36	60.6	-0.27	51.7
Youngest 2 to 15	0.05	12.6	0.01	1.7	0.04	9.1	0.01	2.4	-0.10	25.8	-0.09	13.2	-0.17	42.1	-0.10	25.8
Youngest older than 15	0.10	20.3	0.07	8.0	0.07	13.4	0.03	7.3	0.03	6.7	0.03	4.2	-0.03	6.2	0.00	1.0
SC	-0.19	48.0	-0.19	28.3	-0.21	53.5	-0.15	35.8	-0.17	46.8	-0.15	23.6	-0.19	48.2	-0.12	32.2
R^2	0.19		0.13		0.26		0.14		0.15		0.12		0.16		0.13	

Notes: Dependent variable is 1 if the individual works full-time full-year, 0 otherwise.

Source: Authors' calculations from Statistics Canada census data.

ployment rate of immigrants in Montreal is lower than that of Canadian born individuals is language. Although the language make-up of immigrants in Montreal is much more French than in Toronto, it is—as pointed out in Section 3—much less French than that of the general population. Furthermore, the rewards for knowing French are much lower for immigrants than for Canadian born individuals. For example, compared to knowing only English, knowing only French slightly reduces the probability of working full-time full-year for immigrant males while it increases the probability of being employed by 7 percentage points for Canadian born males (see Table 6). Similarly, an immigrant male who knows both official languages is 6 percent more likely to be employed than his English only counterpart, while the equivalent figure is 10 percentage points for a Canadian born individual.

From Table 8, if immigrants had the same language characteristics and were rewarded the same as their Canadian born counterparts, their employment rate would be 6 percentage points higher for males and 5 percentage points higher for females. However, this is mostly due to the knowledge and rewards associated with knowing French. Indeed, if we isolate the contribution of knowing French and of using French at home (as an indicator of fluency) to the employment rate gap—the Majority language components in Table 8, we find that male immigrants in Montreal would be 5 percentage points more likely to work full time if they had the same French language characteristics and were rewarded the same as their Canadian born counterparts (the equivalent figure is 4 percentage points for females).[25]

Another major reason why the employment rate of immigrants is lower than that of Canadian born workers is that EX for immigrants is not valued as much as for Canadian born workers, which is consistent with findings in the literature on immigrant wages where the returns to pre-immigration labour market experience are generally thought to be lower than the returns to domestic experience.[26] For example, using coefficient estimates in Table 6, we find that an additional year of experience will increase the probability of a 25 year old male to work full-time full-year by 0.02 if the individual is Canadian born, compared with 0.01 if the individual is an immigrant and this additional year of experience is acquired outside Canada (0.02 if acquired in Canada). Overall, the effect of YE more than compensates for the effect of EX for males and just about compensates that for females.

While a degree earned in a foreign country seems to be less valued by Canadian employers than a degree earned in Canada (see Table 6), overall, education is not a factor in explaining the lower employment rate of im-

Table 7. Linear Probability Regression Model Coefficients—Immigrant Specific Variables

	Males				*Females*			
	Montreal		*Toronto*		*Montreal*		*Toronto*	
	Coef.	|t|	*Coef.*	|t|	*Coef.*	|t|	*Coef.*	|t|
CI	0.06	8.37	0.07	17.23	0.05	8.26	0.05	13.41
LO	-0.01	1.43	-0.02	4.78	-0.03	4.70	-0.03	6.74
PL (Reference: USA)								
Central America	0.00	0.22	0.00	0.02	-0.01	0.41	0.03	2.26
Haiti	-0.02	1.13	-0.16	2.74	0.03	1.90	-0.04	0.64
Jamaica	-0.07	2.05	-0.04	3.18	0.06	1.95	0.05	4.32
Trinidad	0.01	0.16	-0.03	2.01	0.06	1.75	0.03	2.13
Other Caribbean	0.02	0.66	-0.01	0.77	0.02	0.81	0.05	3.39
Guyana	0.02	0.46	0.00	0.18	0.06	1.37	0.07	5.57
Other South-America	-0.01	0.35	0.00	0.06	0.02	1.13	0.02	1.93
France	0.01	0.72	0.04	1.64	0.07	3.84	0.04	1.31
Germany	-0.03	0.85	0.01	0.36	0.01	0.17	0.00	0.02
Other Western Europe	0.02	0.71	0.03	1.51	0.03	1.11	0.01	0.75
Romania	-0.02	1.01	0.03	2.07	0.04	2.02	0.12	7.81
Poland	-0.01	0.46	0.01	0.86	0.02	0.81	0.05	3.85
Ukraine	-0.05	1.47	-0.03	1.61	0.01	0.25	0.02	1.54
Russia	0.02	0.68	0.00	0.12	-0.07	2.98	0.01	0.93
Hungary	-0.01	0.19	-0.04	1.57	0.00	0.11	-0.03	1.55
Other Eastern Europe	-0.08	3.13	-0.02	0.98	-0.01	0.44	0.02	0.97
U.K.	0.05	2.14	0.03	2.34	0.01	0.22	0.04	3.48
Other Northern Europe	-0.05	0.87	-0.01	0.46	0.11	2.02	0.03	1.37
Greece	0.00	0.15	-0.02	1.44	-0.01	0.26	0.00	0.05
Italy	-0.02	1.01	0.01	0.46	0.02	1.00	0.00	0.33
Portugal	0.04	2.00	0.00	0.31	0.04	1.78	0.04	3.62
Other Southern Europe	-0.04	1.68	-0.02	1.67	-0.02	0.64	0.03	2.74
West Africa	-0.03	1.10	-0.06	3.90	0.04	1.40	0.01	0.88
East Africa	-0.01	0.30	-0.05	3.83	0.01	0.28	-0.02	1.89
Algeria	-0.14	6.85	-0.14	2.22	-0.03	1.31	0.04	0.62
Egypt	0.00	0.19	-0.10	5.55	-0.01	0.30	-0.05	2.70
Morocco	-0.11	5.68	-0.04	1.10	-0.04	1.87	-0.06	1.58
Other Northern Africa	-0.08	3.62	-0.12	5.25	-0.04	1.66	-0.06	2.53
Southern Africa	-0.06	0.63	0.04	2.35	0.16	1.84	0.02	1.25
Lebanon	-0.06	3.12	-0.06	3.09	-0.08	4.43	-0.05	2.26
Afghanistan	-0.08	1.97	-0.16	8.62	-0.01	0.18	-0.10	6.27
Iran	-0.10	3.91	-0.12	9.19	-0.07	2.90	-0.06	4.42
Iraq	-0.16	3.76	-0.11	5.84	-0.20	5.43	-0.04	2.11
Other West Central Asia	-0.06	2.80	-0.09	7.14	-0.08	4.06	-0.05	4.30
China	-0.10	4.77	-0.10	8.39	0.00	0.18	0.01	1.28
Hong Kong	-0.02	0.64	-0.05	4.53	-0.02	0.59	0.02	1.62
South Korea	-0.06	1.66	-0.13	8.93	-0.03	0.75	-0.09	6.56
Taiwan	-0.13	3.52	-0.17	9.56	-0.07	1.85	-0.10	5.81
Other East Asia	-0.06	0.82	-0.06	2.36	-0.09	1.77	-0.02	0.90
Philippines	0.06	2.62	0.02	1.63	0.14	6.59	0.13	11.97
Vietnam	-0.05	2.40	-0.01	0.84	-0.01	0.61	0.08	6.04
Other South East Asia	-0.03	1.13	-0.04	2.32	-0.02	0.71	0.06	4.18
India	0.02	1.05	-0.02	1.40	0.01	0.56	0.03	2.99
Sri Lanka	-0.11	4.29	-0.02	1.73	-0.05	2.07	-0.02	1.39
Pakistan	-0.13	5.14	-0.10	8.07	-0.13	5.48	-0.15	12.73
Bangladesh	-0.17	6.14	-0.14	8.07	-0.09	3.51	-0.08	4.99
Others	-0.05	0.77	0.00	0.16	0.01	0.09	0.05	2.33
YE	0.01	9.91	0.01	12.24	0.01	10.89	0.01	20.95
$YE^2/100$	-0.01	7.76	-0.01	9.85	-0.01	8.75	-0.01	16.25

Source: Authors' calculations from Statistics Canada census data.

migrants in Montreal. Indeed, male immigrants, for example, are generally more educated and there is no evidence that, overall, the quality of their education (as measured by the HE component of the unexplained gap and the Source country of degree effect in Table 8) is lower than that of their Canadian born counterparts.

Finally, we observe that the PL accounts for about one-third of the employment rate gap for males (less than twenty percent for females).

Sources of the employment rate gap in Toronto

Among the specific sources of the employment rate gap that can be identified by our model, PL is the most significant one for males in Toronto. In fact, this variable explains the entire gap (see Table 8). For females though, the most important source of the employment rate gap is Language, which accounts for about 80 percent of the gap. Paradoxically, for males, Language actually subtracts 4 percentage points from the employment rate gap; this reflects, in part, the fact that all other things equal, in Toronto, knowing English increases much more the probability of being employed for immigrants than for Canadian born individuals.[27]

As in Montreal, whether for males or females, the experience of immigrants in Toronto is not valued as much as that of Canadian born individuals. For example, using coefficient estimates from Table 6, we find that an additional year of experience will increase the probability of a 25 year old male to work full-time full-year by 0.024 if the individual is Canadian born, compared with 0.019 if the individual is an immigrant and this additional year of experience is acquired outside Canada (0.024 if acquired in Canada). Also as in Montreal, the Years since immigration effect significantly compensates for the Experience effect.

Explanations for the larger employment rate gap in Montreal

This section discusses the legitimacy of some of the possible explanations for the larger employment rate gap in Montreal that were discussed in Section 3.

The role of languages skills: By far, the main reason why the employment rate gap is larger in Montreal than in Toronto is language. For example, focusing on males, if relative to Canadian

Table 8. Decomposition of Employment Rate Gaps

	Montreal		Toronto		Difference	
	Gap	|t|[b]	Gap	|t|	Gap	|t|
(a) Males						
Observed gap[a]	-0.07	25.3	-0.02	8.48	-0.06	15.9
Explained gap	-0.00	0.19	0.05	7.34	-0.05	4.68
EX	0.01	2.23	0.01	5.55	-0.01	2.07
HE	0.01	8.17	0.00	2.20	0.00	5.30
Language (HL and OL)	-0.04	8.73	-0.02	4.93	-0.02	3.77
Majority language[c]	-0.02	8.33	0.00	0.45	-0.02	5.31
Others (MA, OT, PC, SC)	0.03	13.1	0.05	33.4	-0.02	9.20
Unexplained gap	-0.15	13.6	-0.12	16.5	-0.03	2.35
Fixed effect	-0.08	3.68	-0.09	3.41	0.01	0.35
EX	-0.06	5.04	-0.06	7.58	-0.00	0.13
HE	-0.00	1.48	-0.00	4.93	0.00	1.76
Language (HL and OL)	-0.02	1.16	0.05	2.24	-0.07	2.52
Majority language	-0.02	2.05	0.05	2.27	-0.08	2.96
Others (MA, OT, PC, SC)	0.01	1.54	-0.02	5.54	0.03	4.12
Immigrant specific	0.08	8.20	0.05	9.43	0.02	2.05
CI	0.02	8.25	0.02	17.0	-0.00	1.45
LO	0.00	1.43	0.00	4.76	-0.00	1.15
PL	-0.02	4.34	-0.02	5.63	-0.00	0.32
YE	0.08	10.3	0.05	12.5	0.03	3.26
(b) Females						
Observed gap	-0.11	40.9	-0.05	27.5	-0.06	17.2
Explained gap	-0.05	7.35	-0.02	2.71	-0.03	3.87
EX	0.01	3.74	0.01	5.02	-0.00	0.34
HE	-0.00	5.35	-0.01	13.3	0.00	2.80
Language (HL and OL)	-0.05	9.97	-0.02	5.67	-0.02	3.62
Majority language	-0.03	8.82	-0.01	1.94	-0.22	5.19
Others (MA, OT, PC, SC)	-0.01	5.04	0.00	2.48	-0.01	5.37
Unexplained gap	-0.14	14.3	-0.14	19.1	-0.01	0.47
Fixed effect	-0.04	2.11	-0.00	0.20	-0.04	1.16
EX	-0.08	8.26	-0.08	10.2	-0.01	0.78
HE	-0.00	0.29	-0.00	3.71	0.00	2.02
Language (HL and OL)	-0.00	0.38	-0.02	0.84	0.01	0.54
Majority language	-0.01	1.30	-0.01	0.61	0.00	0.08
Others (MA, OT, PC, SC)	-0.01	3.61	-0.04	12.1	0.02	4.51
Immigrant specific	0.08	9.81	0.10	18.6	-0.02	1.73
CI	0.01	8.13	0.01	13.3	0.00	0.14
LO	0.01	4.68	0.00	6.71	0.00	1.05
PL	-0.02	3.87	-0.01	1.68	-0.01	2.09
YE	0.08	11.2	0.09	22.0	-0.00	0.64

Note: [a] Difference between the employment rate for immigrants and for Canadian born workers. [b] T-statistics computed using methods suggested in Jann (2008). [c] Majority language show how much of the contribution of the Language variables to the employment rate gaps is due to immigrants not knowing French or not speaking French at home as much as Canadian born individuals in Montreal, and to not knowing English and not speaking English at home as much as Canadian born individuals in Toronto.

Source: Authors' calculations from Statistics Canada census data

born individuals, the knowledge of French was as rewarded for immigrants in Montreal as the knowledge of English is rewarded for immigrants in Toronto,[28] then the difference in the observed immigrant male employment rate gap would decrease by 8 percentage points and would be completely eliminated (see last column of Table 8). Furthermore, if immigrants in Montreal were as likely to know French as immigrants in Toronto are likely to know English, then the difference in the male employment rate gap between Montreal and Toronto would be reduced by an additional 2 percentage points, which means that all in all, the differential would go from minus 6 percentage points to plus 4 percentage points. The results for females are in the same vein although not as dramatic. In their case, the absolute differential would be reduced from minus 6 percentage points to minus 3 percentage points.

The role of different countries of origin: As discussed in Section 3, comparing the gross employment rate gap of immigrants by place of birth might suggest that one reason why immigrants are less integrated in Montreal's labour market than in Toronto's is because of the different countries of origin of immigrants to these two cities. Results in Table 8 support this notion. While for males, the Place of birth total effect is statistically non-significantly different from zero, it explains about 15 percent of the difference in employment rate gaps for females.

The role of immigration policies: Following the discussion in Section 3, a key issue is whether Quebec's immigration policy has been too willing to sacrifice employability for French language skills in selecting its immigrants. Also, we need to keep in mind that the different emphasis on language skills, while being the most important, is not the only aspect in which Quebec's immigration policy differs from that of Canada. A way to assess the overall effectiveness of Quebec's immigration policy is to see how well the immigrants living in Toronto would have performed if they had been in Montreal's labour market. If their employment rate would have been higher than that of immigrants living in Montreal, then this suggests that at least from a labour market integration point of view, Quebec should have followed Canada's immigration policy. Conversely, if their employment rate would have been lower than that of immigrants living in Montreal, then this suggests that Quebec's immigration policy is more aligned with Quebec's labour market reality than Canada's immigration policy. This is indeed what we find using our statistical model: in 2006, if immigrants living in Toronto had lived in Montreal instead, then the employment rate in Montreal would have been lower for males (0.48 instead of 0.50) and lower for females (0.32 instead of 0.34).[29] The

major factor driving this result is by far language. Immigrants in Montreal are a much better fit from a language point of view than Toronto's immigrants would be if they lived in Montreal. In fact, our model estimates that if immigrants in Montreal had the same language characteristics as immigrants in Toronto, then the employment rate of immigrants in Montreal would be 3 percentage points lower for males (4 percentage point lower for females). That the employment rate of immigrants in Montreal is estimated to be significantly smaller with the current immigrants than it would be with the immigrants living in Toronto suggests two things. First, tt makes sense to have a different immigration policy for Quebec not only from a cultural point of view, but also from an economic point of view.[30] Second, Quebec's selection system may or may not be optimal, but it results in immigrants who are better fits to Quebec's labour market reality than Canada's selection system. In particular, Quebec's greater emphasis on knowing French just reflects the reality that in Quebec, knowing French is a significant determinant of success in the labour market. These conclusions are consistent with Nadeau & Seckin (2010) in the context of immigrant wages.

The role of discrimination: An always risky but unavoidable issue to discuss when comparing the labour market performance of immigrants with that of native individuals is that of discrimination. The impact of discrimination on the employment rate gap can enter our model through two main channels: the *unexplained components* (which pick up the impact of differential recognition of skills by employers depending on whether a worker is an immigrant or a Canadian born individuals) and the difference in return components of the *Source county* effect (which may pick up cultural/racial minority effects).[31] These variables are very incomplete measures of the extent of the impact of discrimination on labour market integration as they may pick up other effects as well such as differences in motivation and transferability of skills. Nevertheless, these measures are useful because if they are not significantly different from zero, then they do not provide evidence of discrimination.

According to our model, there is evidence that immigrants are more discriminated against in Montreal than in Toronto. It comes not from the difference in return components of the Place of birth effects (which are in fact not statistically different from zero). Instead, whether for males or females, relative to Canadian born individuals, the French language skills of immigrants in Montreal are less recognized than the English language skills of immigrants in Toronto. This result is especially striking for immigrant males. Indeed, we find that if their knowledge of French was as recognized as that of their Canadian born counterparts, then the employment rate gap would decrease by 2 percentage points in Montreal, while, in Toronto, if their knowledge of English was recognized the same as that of their Canadian born counterparts, then the employment rate gap would actually increase by 5.3 percentage points.[32] These results are intriguing. While we can postulate a number of explanations why French language skills would not be as recognized for immigrants as for Canadian born individuals in Montreal (*e.g.*, French-only speaking immigrants are unlikely to have access to as extensive social networks as French-only speaking Canadian born individuals), the issue is that we cannot exclude the possibility that employers in Montreal may discriminate against immigrants whose only official language known is French.[33]

Conclusions

This paper explores reasons why immigrants have more difficulty integrating Montreal's labour market, (in terms of access to work) than Toronto's labour market. A number of results stand out (for both male and female immigrants, unless specified otherwise). First, there is language. The lack of knowledge of French and of reward for knowing French in Montreal is a major reason why relative to Canadian born individuals, immigrants have a lower employment rate in Montreal than in Toronto. If relative to Canadian born individuals, immigrants in Montreal were as likely to know French and as rewarded for knowing French as their Toronto counterparts are likely to know English and are rewarded for knowing English, then the difference between the employment rate gap in Montreal and that in Toronto could be eliminated for males and substantially reduced for females.

A second key result is that whether in Montreal or Toronto, even after controlling for human capital and family related variables, immigrants from some countries integrate better in the labour market than immigrant from other countries. Interestingly though, the fact that Montreal attracts immigrants from different countries than Toronto generally explains relatively little about why the employment rate gap is larger in Montreal than in Toronto.

Another key result is that immigrants could be subject to more labour market discrimination in Montreal than in Toronto. However, this discrimination would be language related as opposed to be ethnicity related.[34] Indeed, whereas we find that immigrants from specific countries are treated relatively the same in Montreal as in Toronto, we find that knowing French in Montreal is less rewarding for immigrants than for Canadian born individuals, while knowing English in Toronto is at least as rewarding for immigrants as it is for Canadian born individuals.

Finally, we do not find any evidence that Quebec's different immigration policy has anything to do with the larger employment rate gap in Montreal. On the contrary, we find that if Montreal attracted the same kind of immigrants as Toronto, then the employment rate gap in Montreal would be larger. Greater emphasis on French skills in the selection of immigrants for Quebec is thus not only culturally but also economically justified. At this juncture though, besides attracting more immigrants who know French, a key public policy challenge

for Quebec is to ensure that the French skills of its immigrants are recognized as much as those of its Canadian born population. This does not mean that fewer immigrants who are not fluent in French should be hired. It just means that all other things equal, in Montreal, an immigrant who is fluent in French should be as likely to be hired as a Canadian born individual who is fluent in French.

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[1] See Mérette (2009) for a sobering assessment of the role that increased immigration could play in reducing the negative welfare impact of population aging in Canada.

[2] Since the 2006 budget, federal funding for immigrant related issues has increased by more than $400 million a year.

[3] See Boudarbat & Boulet (2010) and Nadeau & Seckin (2010).

[4] For studies of the causes of the wage gap between immigrant and Canadian born workers, see Bloom, Grenier, & Gunderson (1995), Schaafsma & Sweetman (2001), Grenier (2001), Aydemir & Skuterud (2005), Frenette & Morrissette (2005), Picot & Sweetman (2005), Picot & Hou (2009) Green & Worswick (2010), and Nadeau & Seckin (2010).

[5] This study is not the first to compare employment rate gap issues between Quebec and the rest of Canada: see Boudarbat & Boulet (2010). However, to our knowledge, there is no other study systematically comparing the sources of the employment rate gap in Montreal with those in Toronto. What possibly makes Montreal versus Toronto a more useful comparison than Quebec versus other provinces is that we can think of each metropolitan region as a distinct and homogeneous labour market.

[6] Our analysis ignores self-selection. For example, labour force participation may be linked to decisions to (1) immigrate or to relocate from one metropolitan labour market to another, (2) further one's education, (3) acquire language skills, (3) get married, (4) have children, (5) have a given living arrangement. Ignoring self-selection effects may lead to biased coefficient estimates. However, the methods of accounting for self-selection (e.g., switching regression models) often yield unreliable estimates: see Manski (1989).

[7] See Bratsberg, Ragan, Nasir, & Zafar (2002), DeVoretz & Pivnenko (2006) and Nadeau & Seckin (2010).

[8] See Chiswick (1978) and Bloom, Grenier, & Gunderson (1995).

[9] See Boudarbat & Boulet (2010).

[10] See Albouy (2008) and Nadeau (2010).

[11] See Boudarbat & Boulet (2010).

[12] We treat language fluency as exogenous, although we understand that individuals make decisions to learn a second language, as any other investment choice. Modeling language skills as an endogenous variable is difficult. See Grenier and Nadeau (2011) for an analysis of the determinants and impacts of using a second language at work in Montreal.

[13] According to the Times Higher Education-2008 QS World University Rankings, six of the top 100 universities in the world are located in Canada, 36 in the U.S., 17 in the U.K., 19 in the rest of Europe, 14 in Asia and eight in Australia and New Zealand. None are from Africa, Central and South America, which represent a larger source of immigrants for Montreal than for Toronto.

[14] Canada and Quebec have had immigration agreements since 1971. The Cullen-Couture Agreement came into effect on March 30, 1979. It was preceded by the Lang-Cloutier (1971) and Andras-Bienvenue (1975) agreements.

[15] For good summaries of Quebec's responsibilities in terms of immigration policy, see Becklumb (2008) and DeVoretz and Pivnenko (2008).

[16] There are differences in the distribution of immigrants among the admission classes that may affect the economic performance of immigrants. The proportion of economic immigrants used to be lower in Quebec than in the rest of Canada, but it has increased since 2000. Among the non-economic immigrants, relatively more refugees and fewer family class immigrants tend to settle in Quebec than in the rest of Canada. (Citizenship and Immigration Canada 2010, Gouvernement du Québec 2003). Since the census data do not include immigration classes, this issue cannot be addressed in this paper. There is also the issue of whether immigrants admitted under Quebec's government policy end up staying in Quebec. Immigrants are free to move within Canada after they arrive and many of them change province (Grenier, 2008). A recent study by Citizenship and Immigration Canada (Okonny-Myers 2010) indicates that, between 1991 and 2006, a significant majority of immigrants (79%) who landed in Quebec still lived in Quebec in 2006.

[17] See Bloom, Grenier & Gunderson (1995), Pendakur & Pendakur (2008), and Boudarbat & Boulet (2010).

[18] Using the Ethnic Diversity Survey, Bourhis et al. (2007, page 39) show that overall, the proportion of respondents who report having been victims of discrimination is about the same in Montreal as in Toronto. While they find that more Canadians of European origins living in Quebec say that they were victims of discrimination than Canadians of the same origins living in the rest of Canada (17 percent compared with 11 percent), they find the reverse for Canadians belonging to visible minorities, as a larger proportion of them say that they were victims of discrimination in the rest of Canada than in Quebec (35 compared with 30 percent). See Bourhis et al. (2007), page 40, Figure 3).

[19] See Blinder (1973) and Oaxaca (1973).

[20] See, for example, Bonikowska, Green and Riddell (2010) and Nadeau and Seckin (2010).

[21] We use the Canadian born coefficients as benchmark coefficients to evaluate the explained component on the assumption that Canadian born workers represent the "non-discriminatory group". This is in the spirit of what was done originally by Oaxaca (1973) and Blinder (1973). In other words, in an "ideal world" with no

discrimination, we would expect immigrants to be treated the same way as the native born are. However, there are several variations of the decomposition, depending on which coefficients are used to measure the explained components. At the other extreme of what we do, the immigrants' coefficients could be used as benchmark coefficients, or some weighted average of the Canadian born coefficients and of the immigrants' coefficients (see Oaxaca and Ransom 1994). As will be noted later, our major conclusions are not changed, and some are even reinforced, if the decomposition is done using the immigrants' coefficients as benchmark coefficients.

[22] To verify that we have eight distinct labour markets, we tested the hypotheses that the wage determination process in Montreal is the same as in Toronto (controlling for gender and immigrant status); that it is the same for immigrants and Canadian born individuals (controlling for metropolitan area and gender); and that it is the same for males and females (controlling for metropolitan area and immigrant status). These hypotheses were statistically rejected in all cases.

[23] Our results differ from those from Charles Castonguay (as reported in Gravel 2010) who finds that it is necessary for immigrants in Montreal to know English to be successful in the labour market. What we find is that knowing French is as important as knowing English to be employed in Montreal. As a point of fact, we find that statistically speaking, immigrants (whether male or female) who know only French are just as likely as immigrants who only know English to be employed in Montreal. Further, we find that knowing French actually increases the probability of being employed by 6 percentage points for a male immigrant who already knows English (7 percent for a female immigrant).

[24] As shown in Oaxaca and Ransom (1999), the detailed decomposition of the unexplained component in (3) is not invariant to the choice of reference groups when dichotomous variables are used in the regression equations. To solve this problem, we follow Gardeazabal and Ugidos (2004) and Yun (2005) and restrict the sum of the estimated coefficients of each set of dichotomous variables to zero in performing the decomposition (3).

[25] The result that knowing French is important for immigrants in Montreal is not due to the use of the Canadian born coefficients as the benchmark coefficients in decomposition (3). Indeed, if we used the immigrants coefficients as benchmark coefficients instead, then the key point that the employment rate would be 4 percentage points higher for males and 3 percent higher for females if immigrants in Montreal were as likely to know French and as rewarded for knowing French as their Canadian born counterparts would not change. The return to knowing both English and French over knowing only English is significant (0.06 for males and 0.07 for females). Decomposition estimates using the immigrants' coefficients as benchmark coefficients are available from the authors upon request.

[26] (Schaafsma & Sweetman 2001, Frenette & Morissette 2003, Aydemir & Skuterud 2005 and Green & Worswick 2010)

[27] For males in Toronto, in the regressions where there are no omitted dichotomous variables but where the sum of the estimated coefficients of each set of dichotomous variables is restricted to zero, the coefficient associated with the variable Knowledge of official language-English only is 0.08 for immigrants while it is 0.02 for Canadian born individuals.

[28] While the fact that there are many more English-speaking workplaces in Montreal than French-speaking workplaces in Toronto can explain why the return to knowing English in Montreal is greater than the return to knowing French in Toronto, it cannot explain why compared to that for Canadian born individuals, the return to knowing French for immigrants in Montreal is significantly lower than the returns to knowing English for immigrants in Toronto, which is the issue at hand here.

[29] This is done using the mean characteristics of immigrants in Toronto with the coefficients estimated for Montreal. In particular, this pre-supposes that those individuals who immigrated to Toronto would not have learned French if they had instead immigrated to Montreal. While we are not aware of statistics on the rate of French language skill acquisition among English speaking immigrants in Montreal, it is doubtful that it is zero as it is assumed in this exercise. Nevertheless, we would be surprised if it was as high as 30 percent, which is about what would be required for Toronto immigrants to have as high an employment rate as that of Montreal immigrants if they were living instead in Montreal.

[30] This does not say though that this policy should be administered by Quebec, something that at this point we are agnostic about. It just says that in particular, it makes sense to have a different point system for the evaluation of prospective immigrants to Quebec than that for prospective immigrants to the ROC.

[31] The reason why we did not incorporate a visible minority indicator in our regressions to assess the impact of discrimination is that immigrants can be discriminated against even if they are not a visible minority. In the majority of countries, immigrants come from a common ethnic group, but there are exceptions, such as South Africa.

[32] The result that the French language skills of immigrants are less recognized in Montreal than the English language skills of immigrants in Toronto is not due to the use of the Canadian born coefficients as benchmark coefficients in the decompositions.

[33] Explaining why English language skills are more recognized for immigrants than for Canadian born individuals in Toronto is even more challenging and is not addressed in this paper.

[34] This conclusion is similar to the one reached by Bourhis et al (2007) with *Ethnic Diversity Survey* data.