Recent Immigration to Canada and the United States: A Mixed Tale of Relative Selection

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Abstract

Using large-scale census data and adjusting for sending-country fixed effect to account for changing composition of immigrants, we study relative immigrant selection to Canada and the U.S. during 1990-2006, a period characterized by diverging immigration policies in the two countries. Results show a gradual change in selection patterns in educational attainment and host country language proficiency in favor of Canada as its post-1990 immigration policy allocated more points to the human capital of new entrants. Specifically, in 1990, new immigrants in Canada were less likely to have a B.A. degree than those in the U.S.; they were also less likely to have a high-school or lower education. By 2006, Canada surpassed the U.S. in drawing highly-educated immigrants, while continuing to attract fewer low-educated immigrants. Canada also improved its edge over the U.S. in terms of host-country language proficiency of new immigrants. Entry-level earnings, however, do not reflect the same trend: Recent immigrants to Canada have experienced a wage disadvantage compared to recent immigrants to the U.S., as well as Canadian natives. One plausible explanation is that, while the Canadian points system has successfully attracted more educated immigrants, it may not be effective in capturing productivity-related traits that are not easily measurable.

Introduction

Canada and the United States are two of the largest immigrant destinations in the world with long histories of immigration. For decades, the two neighboring countries have received large inflows of immigrants from many common sending nations even as they pursued strikingly different immigration policies and experienced diverse labor market conditions and institutional frameworks. It is widely accepted that immigrants[1] are not a random sample of population from sending countries. There are, however, only a limited number of cross-national studies on immigrant selection, in contrast to a growing comparative literature on immigrant assimilation. The existing research on immigrant selection between the U.S. and Canada is mostly based on pre-1991 data (Duleep and Regets 1992; Borjas 1993; Reitz 1998; Antecol, Cobb-Clark, and Trejo 2003;). There is surprisingly little comparative research since 1991, a period during which a massive flow of over 25 million new immigrants entered the two countries, such that by 2007 approximately 60 percent of the foreign-born population in both Canada and the U.S. were post-1990 arrivals (Citizenship and Immigration Canada 2009; Walters and Cortes 2010).

Cross-national research on immigration creates opportunities for nation-states to draw from the experience of others. Because many of the challenges encountered by large immigration destination countries are similar, comparative research has considerable policy relevance. It also opens domestic policy to international scrutiny that may not always capture the nuances of immigration policy debates in host countries. While in this research we have chosen two countries that are comparable on many cultural and institutional domains, several key differences make it challenging to pin down the exact cause of the difference in immigrant selection patterns at the two destinations.

[1] Throughout the paper, we use the terms "immigrants" and "foreign-born" interchangeably.

In the comparative case considered here we ask the following questions: Are there any systematic differences in immigrant selection in the two countries since 1990? How have changes in the Canadian points system affected the relative selection pattern between the two countries over time? What roles do destination-country characteristics (e.g.,, immigrant networks) and sending-country socioeconomic conditions (e.g.,, per capita GDP and income inequality) play in determining the "quality" of immigration? Answers to these questions are critical in assessing the implications of migration for both the sending and receiving countries[2] (Jasso and Rosenzweig 1990; Portes and Rumbaut 1996; Feliciano 2005) and in fully understanding the different processes of immigrant assimilation (e.g., why some groups achieve better outcomes than others).

In the empirical analysis, we conduct numerous tests to address these challenges and in the conclusion section we reflect on possible explanations for the differences in the selection patterns in Canada and the U.S. Specifically, we study multiple aspects of immigrant selection pertaining to human capital and labor market characteristics, namely, educational attainment, host-country language proficiency, and entry-level wages. Our study makes several contributions to the literature. First, most previous studies on immigrant selection used the native-born at each destination as the comparison group. Such a comparison would be biased if the native profiles at the two destinations differed. It is more appropriate to compare recent migrants from the same sending country who migrated to different destinations during the same period. To this end, we control for sending country fixed effects, which also help control for a wide array of supply-side time-invariant contextual factors that may have shaped the characteristics of emigrants. Further, we assess the importance of several sending and receiving country characteristics at emigration,

[2] While positive selection raises concerns about "brain drain" in sending countries, negative selection is often perceived as having a detrimental effect on the wages of low-skilled workers in receiving countries.

including origin socioeconomic conditions and destination immigrant networks, whereas earlier research primarily draws indirect inferences on the role of these macro contexts. Specifically, we test the self-selection model (Borjas 1987) and the network model (Massey 1987) of immigration, described in detail below, in a comparative framework. Arguably, a comparative framework provides a more robust test for these models as they hold across settings.

Finally, we investigate whether the Canadian point system, which screens immigrants on certain observable traits, also effectively captures less easily observed skills, an issue that has remained largely unexplored. We investigate this question by comparing multiple characteristics of immigrants at arrival, including those that form the basis of the points system (educational attainment and host-country language proficiency) and those not in the points system but capture unmeasured (or unobserved) skills and abilities (e.g., entry earnings), that is, the traits of immigrants such as motivations and skill transferability which are not straightforward or impossible to quantify and are thus often not collected in surveys. If immigrant earnings at arrival are more favorable in Canada than in the U.S. after controlling for observed characteristics, the points system would be considered effective in drawing immigrants on unobserved characteristics.

Data are from the Canadian census for 1991, 2001 and 2006, the U.S. census for 1990 and 2000, and the American Community Survey for 2005-2007. We use the 20% Canadian census data, instead of the publicly available 1-3 % censuses used in most previous research (which did not provide detailed information on country of origin or sufficiently large sample sizes to allow for sending-country level analyses). The 20% Canadian censuses provide sufficiently large samples, comparable in size to the U.S. samples, to permit analysis on recent immigrants from 103 common sending countries.

Immigration Policy and Socioeconomic Environment in Canada and the U.S.

Historically, Canada and the U.S. followed similar immigration policies. Both were open to immigration from the western hemisphere, but pursued highly restrictive policies toward immigrants from the eastern hemisphere. Since the mid-1960s, however, their immigration policies have diverged significantly (Boyd 1976; Greenwood and McDowell 1991). Canada began moving toward an explicit points system to screen for workers with special skills or high levels of education (Boyd 1976). At first, the policy was linked to the business cycle: More immigrants were allowed in periods of high growth to ameliorate shortages of specific skills, and fewer during recessions. Since the early 1990s, concerns about population aging and long-term economic growth resulted in policies that aimed at a steady increase in skilled immigration irrespective of short-term economic trends (Hiebert 2006). In addition, there was a massive increase in emphasis on educational attainment and language proficiency in the point system. Specifically, in 1992, the federal government allocated 12 points (out of 100) to high education and 15 to French or English proficiency. By 2006, prospective immigrants with a bachelor's degree received 20 points, and those with a master's or PhD received 25 points. The points allocated to language proficiency were raised to 24. Table 1 describes these policy changes.

With the 1965 Hart-Cellar Act (Immigration and Nationality Act), the U.S., in contrast, adopted an immigration system that emphasized family reunification, with unlimited admittance of immediate relatives of U.S. citizens – eligible immediate relatives included spouses, unmarried children under 21, and parents if the U.S. citizen was over the age of 21. Although the U.S. also has an employment-based immigration system, the proportion of immigrants admitted under this mechanism has remained relatively small. In 1990, almost 40 percent of all immigrants to Canada, compared to only 8 percent of legal U.S. immigrants, were admitted

under the skill category (Antecol, Cobb-Clark, and Trejo 2003). This has raised concerns about the "quality" of U.S. immigrants (Teitelbaum 1980; Borjas 1993). Partly in response, the U.S. Immigration Act of 1990 expanded the quota for employer-sponsored immigration (Vialet and Eig 1990).

In addition, a designated number of non-immigrant H-1B visas are issued annually to foreigners in specialty occupations, such as scientific research, information technology, and engineering.[3] New non-immigrant categories have also been created for high-skilled workers. Despite these more recent developments, the proportion of immigrants admitted based on skills or employment is smaller in scale in the U.S. than in Canada. But the small proportion that enters the U.S. through the employment system is likely to be more educated on average than immigrants who enter Canada through the points system. Furthermore, migrants who acquire permanent residency via the employment system become eligible to sponsor relatives through family reunification. Thus, large scale temporary immigration (e.g., via H1B visas) based on skilled employment and permanent migration through the employment channel have important implications for subsequent family-based immigration, and shape the overall skill profile of U.S. immigrants.

Despite these primary differences, there are certain overlaps in the immigration regimes of both countries. As in the case of the U.S., the Canadian immigration policy also emphasizes family ties (Greenwood and McDonwell 1999, Challinor 2011). Furthermore, Canada has also been developing an employment-based immigration policy, especially to draw skilled immigrants to provinces that have been underexplored as immigrant destinations, which is a tacit acknowledgement that the U.S. immigration policy pertaining to employment–based migration is

[3] From 1992 to 2000, the number of H-1B visas increased from 110,200 to 355,600, indicating an increase in skilled immigrants. The number of H-1B visas was reduced subsequently due to the weakening of the technology sector.

a useful model.

One distinct feature of U.S. immigration is the large scale presence of the undocumented, especially from Mexico. Over a third of all new immigrants since 1990 have been undocumented, overstaying their visa limits or entering without legal documentation, most often crossing the southern border. The selection process of these immigrants is more likely to be influenced by economic and institutional factors other than immigration policy. Because Canada has very few immigrants from Mexico, some previous U.S.-Canada comparative research has excluded Mexicans from the analysis and others have included sending country fixed effects to adjust for the uniqueness of U.S.-Mexico immigration (Antecol, Cobb-Clark, and Trejo. 2003; Borjas 1993; Picot and Hou, 2011).

Reitz (1998) outlines four major factors linked to the entry level attributes of immigrants: immigration policy, labor market structures, educational institutions, and welfare systems. Compared to Canada, the U.S. labor market provides higher economic returns to education (Bonikowska, Hou, and Picot. 2011; Card and Lemieux 2001; Boudarbat, Lemieux, and Craig Riddell 2010; Peracchi 2006). Empirical evidence also points toward a greater widening in income inequality in the U.S. than in Canada during the 1980s and 1990s (Gottschalk and Smeeding 1997). In contrast, Canada has stronger labor unions, higher minimum wages, and more generous unemployment insurance and welfare systems, including national health insurance (O'Connor, Orloff, and Shaver. 1999). Nevertheless, observational studies in Canada indicate that immigrants face a considerable degree of occupational mismatch, implying presence of obstacles that may limit immigrants from achieving their full potential (Reitz 2001).

Previous research suggests that skilled immigrants tend to choose countries with higher returns to skills and less-skilled immigrants prefer countries with a generous safety net (Cohen

and Haberfeld 2007). The interplay of immigration policy, labor market, and welfare institutions in the U.S.-Canada case, however, makes it difficult to predict selection patterns. Whereas the Canadian immigration policy (i.e., the point system) is more likely to allow high-skilled immigrants and restrict the entry of the low-skilled, Canada's more egalitarian wage structure coupled with a relatively generous welfare system may make it a less attractive destination for highly skilled immigrants than the U.S.

Finally, the scale of immigration has important implications for selection and assimilation. Approximately 1 million immigrants received permanent residency each year in the U.S. during 2002-2006 (Hoefer, Rytina, and Campbell 2006). For Canada, the corresponding number was about 240,000 (Smith and Ley 2008). However, as a proportion of each country's population, annual permanent migration to Canada (0.75% of the population) is more than double the annual permanent migration to the U.S. (0.3% of the population).[4] The difference in scale implies that challenges of absorbing immigrants in Canada are different, and arguably greater, than the challenges of absorbing immigrants in the U.S.

Selectivity of Immigrants in the U.S. and Canada

Previous studies have investigated how distinct immigration policies pursued by Canada and the U.S. have affected immigration patterns. Duleep and Regets (1992) find that Canadian immigrants had neither education nor earnings advantages relative to immigrants in the U.S., and conclude that the Canadian points-based system had little effect on immigrant characteristics. Using the U.S. and Canadian census data for 1970 and 1980, Borjas (1993) finds that immigrants in Canada were more educated than immigrants in the U.S. But this education advantage largely disappeared once immigrants from the same source country were compared. Borjas concludes

[4] Including the undocumented inflows, annual immigration to the U.S. is approximately 0.5% of the population (Hoefer, Rytina, and Campbell 2006).

that the Canadian immigration system had produced a favorable effect on immigrants' characteristics by altering the mix of source countries. Antecol, Cobb-Clark, and Trejo. (2003) arrive at similar results, which they attribute to the geographic and historical ties between Mexico and the U.S. Greenwood and McDowell (1991) examine the relative selection of immigrants to Canada and the U.S. over the 1982-1993 period. They find that during this period the percentage of highly skilled immigrants in both countries differs only slightly and that the two countries have very similar composition of immigrants in terms of age and skills.

These previous studies offer valuable insights, but are based on pre 1990/91 data. Bonikowska, Hou, and Picot. (2011) is the only exception that applies a comparative framework using the post-1991 data. But the paper's focus is returns to education for college-educated immigrants, not immigrant selection. Furthermore, most existing research uses the native-born population as the comparison group at each destination. Such a comparison would be biased if native profiles at the two destinations differed. For instance, because the average education of natives is higher in the U.S. than in Canada (see Table 2), the education of recent immigrants relative to natives would be higher in Canada even if there is no difference in the average education of the two streams of immigrants. Another approach is to compare immigrants with their non-immigrant counterparts in the home country, as in Feliciano (2005) that shows that nearly all U.S. immigrant groups were more educated than non-immigrants in the respective sending country. For comparative research on immigrant selection, recent immigrants from the same sending country at another destination are a more appropriate comparison group than non-immigrants.

Earlier research also examines how the origin and destination contexts shape the characteristics of immigrants. Using Roy's (1951 a,b) self-selection model, Borjas (1987)

postulates that immigrants are positively selected if the sending country has a relatively egalitarian income distribution compared to the receiving country and negatively selected if it has a relatively unequal distribution. The effect of origin contexts on immigrant selection has not been investigated in a comparative framework. Moreover, past studies have often overlooked the influence of historical immigration patterns and the resulting immigrant networks on immigrant selection. Massey (1987) argues that immigrants become less positively selected with each successive wave of immigration as expanding migrant networks help reduce the relative costs and risks of migration. But this thesis has not received much attention in a comparative framework.

We seek to address many of the aforementioned gaps, especially the use of post-1990 data and the fact that detailed sending country of immigrants was often not adjusted. Our analyses cover a more recent period and examine a range of human capital and labor market outcomes. We compare recent immigrants from the same sending country who migrated during the same period to the U.S. and Canada by including sending country and period of arrival effects. Our focus is on recent immigrants since their characteristics are more likely to resemble immigrant characteristics upon arrival (selection) and least likely to be affected by assimilation processes. In addition, inclusion of sending-country fixed effects allows us to control for a wide array of time-invariant supply-side contextual factors. Also, we specifically assess the importance of a number of sending- and receiving-country characteristics at the time of emigration to test Borjas's self-selection model and Massey's network model.

Immigrant selection occurs on various domains, some of which are easily observed (e.g.,, age, educational attainment, and language proficiency). Others, such as ambition and productivity, are not so straightforward to observe. Cohen and Haberfeld (2007) compare the

educational and earnings selection of former Soviet Union immigrants to the U.S. and to Israel and attribute the differences to unmeasured productivity-related characteristics. Following their study, we draw inferences about unmeasured aspects of selection for immigrants entering the U.S. and Canada by studying variations in selection between observed skills (e.g., education and language proficiency) and initial earnings. This analysis helps shed light on the effectiveness of the Canadian point system in raising immigrant "quality," measured by immigrant characteristics included in the screening process as well as characteristics that are not included.

Data and Measures

We use 20% samples of the 1991, 2001, and 2006 Canadian censuses, 5% samples of the 1990 and 2000 U.S. censuses, and the 2005-2007 American Community Survey (ACS)[5]. An advantage of using the 20% restricted-use Canadian census is that it provides detailed information on the country of birth of all foreign-born persons. We pool the 2005-2007 ACS such that the sample size is comparable with the 2006 Canadian census. For convenience, henceforth, we use "2006" to describe the 2005-2007 ACS data. All final analyses were carried out at a Statistics Canada Research Data Centre using pooled U.S. and Canadian data.

Our focus is foreign-born men and women aged 25 to 64 years who arrived in the host country less than five years prior to the respective census/survey. On average these immigrants have been in the host country for 2-3 years. In our analytic sample for Canada, 20-21 percent of

[5] The data sources we use under-count undocumented immigrants. It would be ideal to distinguish between legal and undocumented immigrants in the two destinations. However, neither the US nor Canadian data used allow us to do so. Official and private estimates suggest that the 2000 Census and ACS undercount the undocumented by 10% (Passel and Cohn 2005, Hoefer 2009). Warren and Warren (2013) set an undercount of 12.1 % for the undocumented who entered the U.S. during 2000-2009. Most estimates suggest that the undocumented were 30% of the permanent (legal and undocumented) migration during 1995-2007. Based on these estimates, the 2000 Census and ACS 2005-2007 have an overall immigrant undercount of 3% to 3.6% on account of the undocumented. Because there were fewer undocumented immigrants in 1990, it is likely that the immigrant undercount increased during our study period. In comparison, the magnitude of the undocumented in Canada is very small. Thus, exclusion of immigrants on account of this undercount in the Canadian Census is likely to be small. The overall under-coverage rate is 2.8% in the 2006 Canadian census and somewhat lower in previous censuses (Statistics Canada 2013).

the immigrants are enrolled in school/college. The proportion enrolled in the U.S. sample is 18 percent in 1990 and declined steadily to 13 percent in 2000 and 10 percent in 2005-2007. Excluding Mexican immigrants, the proportion of recent immigrants currently attending school or college in the U.S. sample was somewhat higher: 19 percent in 1990, 15 percent in 2000 and 14 percent in 2006. The wage analysis further restricts the sample to immigrants who are not self-employed, in school, or in the military. Both the censuses and the ACS contain detailed data on educational attainment, which are used to create two variables on educational qualifications: whether the respondent has a B.A. or an advanced degree, and whether the respondent has a high-school (HS) or lower education.

In addition, we also study years of schooling as an outcome as in previous studies. The 2006 Canadian Census did not ask the years of schooling, but only the highest certificate, diploma, or degree attained. For people with less than a HS degree, this means missing data on the exact years of schooling. For those individuals, therefore, we imputed years of schooling by calculating the average schooling years in 2001 by exact age, gender, and country of birth.

These data sets also contain information on proficiency in host-country language. In the U.S. data, we code the variable on host country language proficiency as equal to one if the respondent reports speaking only English, speaking English very well or well, and zero otherwise. In the Canadian data, we code the variable as 1 if the respondent is able to conduct a conversation in English and French, or is able to conduct a conversation in English only and lives in a majority English-speaking province, or is able to conduct a conversation in French only and lives in Quebec. Otherwise, the variable is coded as zero. Although the language variable is not identical across destinations, it is unlikely to affect our comparison of the over-time trend.

The U.S. censuses and ACS contain information on annual earnings, weeks worked the year before the census/survey, and usual hours worked per week, which are used to construct hourly wage. The Canadian census gathers data on annual earnings and weeks worked last year, but only includes hours worked in the reference week (the week prior to the census day). In order to include individuals who were unemployed or not working in the reference week but indicated having worked either full-time or part-time during the year, we calculate the average hours worked for full- and part-time workers who worked during the reference week and assign these values to those with missing information on hours worked. For part-time workers, the average assigned is 18 hours per week, and for full-time workers the average is 35 hours per week.[6] About 11 percent of the Canadian men's sample and 18 percent of the Canadian women's sample are assigned the average values. The hourly wage is constructed by dividing annual earnings by weeks and hours worked. All earnings data are expressed in U.S. dollars using the purchasing power parity (PPP) in respective years. A small number of observations with hourly wage less than U.S. $2 or more than $250 are dropped from the earnings analysis to ensure that extreme values do not influence the findings.

The census data provide information on the current province of residence (Canada) and the current state of residence (U.S.). They are used to compute the proportion of sending-country population in each province in Canada and each state in the U.S. in year t-5. The real wage of the native-born non-elderly adult population in year t is computed by age category (25-45, 46-64), education (less than HS, HS, some college, B.A.+), gender, and the state/province of residence.

With respect to the sending-country characteristics, we use data on per capita gross domestic product (GDP) in immigrant's country of birth, expressed in 2005 constant U.S.

[6] We re-estimated models assigning 20 hours of work for part-time and 40 hours for fulltime workers. Results were similar. We present the models with 18/35 hours of work to be consistent with other studies.

dollars, from the Penn World Table of the Center for International Comparisons (Heston, Summers, and Aten 2011). Data on Gini coefficients (an indicator of inequality) are from the Estimated Household Income Inequality dataset of the University of Texas Inequality Project and the World Bank (each source provides comparable Gini data for different sets of countries). All variables on the sending-country characteristics are lagged 5 years and merged with the U.S. and Canadian data by immigrant's country of birth and year of observation.

Appendix Table A1 shows the sending-country characteristics in year t-5 (i.e., 1985, 1995 and 2001). There are noticeable variations in per capita GDP and Gini coefficients over time as well as across countries in a particular year. This indicates that immigrants experienced different levels of socioeconomic development prior to emigration that may shape their selection patterns. Such variation also assures that these characteristics are not collinear with the sending-country fixed effects. Because the data on the Gini coefficients are missing for a number of sending countries, the analyses including this measure are based on a smaller sample and fewer countries. To test whether our estimates are affected by the reduced sample size, we conduct all analyses with and without Gini coefficients. The two sets of analyses show very similar results. We have elected to present results with controls for the Gini coefficients to offer more thorough analyses.

Empirical Framework

To compare the characteristics of recent immigrants at the two destinations and the over-time trends, we begin with the following logistic regression applied over a sample of non-elderly adult immigrants (aged 25-64) who arrived in Canada or the U.S. less than five years prior to the census/survey.

$$(1)\quad \text{logit}(E_{isdt}) = XB + \alpha * Canada + \gamma_t * P_t + \delta_t * Canada * P_t + \lambda_s * S_s$$

E_{isdt} denotes the skill level in year *t* of immigrant *i* (measured as whether the immigrant received a B.A. or an advanced degree, whether the immigrant received a high-school or lower education, and whether the immigrant is proficient in host-country language[7]) from sending country *s,* who recently arrived in destination *d*. The vector X denotes immigrant characteristics, namely age (a set of dummy variables of 5-year age groups), gender, whether currently married, and whether has children[8]. Note that although marital status and whether respondent has children are measured after migration, we included them in the analysis to provide more conservative estimates. Models that do not adjust for these variables are highly consistent. S_s denotes sending country fixed effects. The dummy variable *Canada* is equal to one if the immigrant currently lives in Canada, and zero if he or she lives in the U.S. It is interacted with the year of observation, denoted by P_t, to investigate whether immigrant selection to Canada relative to that in the U.S. has changed over time. The corresponding parameters (or vectors of parameters) are B, α, γ, δ, and λ.

We estimate equation (2) to further study whether there is an association between immigrant selection patterns and sending- and receiving-country characteristics, and whether this association differs for immigrants at the two destinations:

$$(2)\quad \begin{aligned}\text{logit}(E_{isdt}) = {} & XB + \alpha * Canada + \gamma_t * P_t + \delta_t * Canada * P_t + \mu * SC_{s(t-5)} + \\ & \xi * Canada * SC_{s(t-5)} + \phi * RN_{d(t-5)} + \theta * Canada * RN_{d(t-5)} + \lambda_s S_s\end{aligned}$$

$SC_{s(t-5)}$ denotes sending-country characteristics at emigration, namely, per capita GDP and Gini coefficient. We also examine one destination characteristic, $RN_{d(t-5)}$, the proportion (density) of population in each province in Canada (or each state in the U.S.) from country s, as a measure of

[7] We also studied a fourth outcome: whether the respondent has less than a high-school education. The overall trend was similar to that for high-school or lower education.
[8] Models with language proficiency as the dependent variable also control for respondent's educational attainment.

immigrant networks. These origin and destination characteristics are all *lagged* by five years to match with immigrants' actual period of emigration. While not indicated in equation (2), models with the density measure also include the state/province fixed effects to adjust for state/province specific factors that may be correlated with immigrant density.[9]

Distance is an important determinant of migration decisions and may influence selectivity in migration. Most previous research has used the distance between the capital of the sending country and the capital of the receiving province/state at the destination to compute a variable on distance. For immigrants from geographically large countries such as China, Russia, and India, this creates a problem. Distance between destination and origin of immigrants from these countries will have to be calculated under the assumption that all immigrants from any specific country came from the same city – which is a restrictive assumption. The analysis would also require us to assume that immigrants' current state/province of residence is the same as their state/province of residence when they initially migrated.

We partially address this issue by studying immigration to two countries that are geographically contiguous. We use sending country fixed effects to control for a number of time-invariant factors that are common for the two countries. This is a more parsimonious way to control for distance between origin and destination – for immigration from outside the Americas. The U.S. has a distance advantage for immigrants from Mexico, Central America, and South America. To address this issue we do the analysis by excluding immigrants from Mexico[10]. In the analysis done separately for each destination, sending country effects also allow controlling for time-invariant sending country specific factors such as distance between origin and

[9] The geographic units are 51 states in the US and 10 provinces in Canada. We conducted additional fixed-effects analyses using larger geographical aggregates in the US (9 regions instead of 51 states) to be consistent with the larger geographic units in the Canadian data. The results are very similar to those reported.

[10] We also did the analysis excluding immigrants from the Americas and the results were similar.

destinations, and official language at origin.

Most previous Canada-U.S. comparative studies on immigrant selection have examined years of schooling as the measure of educational attainment. Because such a measure does not fully illuminate the changing patterns in educational distribution, we have opted to focus on two dichotomous education variables that capture the distribution of educational attainment among immigrants. To compare our findings with the previous research, we also conduct a similar set of analyses with years of schooling as the dependent variable with ordinary least square regressions.

The final aspect of selection we examine is wage earnings of recent immigrants. Models similar to (1) and (2) are applied with some modifications. Because earnings are continuous, we use ordinary least square regressions with log-transformed wage earnings as the outcome. Since wages of immigrants are influenced by the economic conditions at the destination, we control for the (logged) average wage of the native residents by age, education, gender, and province/state of residence (also PPP adjusted). All earnings analysis is carried out separately by gender since labor market determinants for men and women are different. We estimate these models without and with additional controls for educational attainment and host-country language proficiency. The latter allows for a comparison of selection with respect to unobserved characteristics manifested in immigrant earnings, net of observed human capital, such as motivations and skills that are not easily measurable. Previous cross-national research on immigrant earnings uses the native-born as the comparison category. To relate our findings with previous research, we also estimate destination-specific regressions comparing recent immigrants in the U.S. with the U.S.-born, and recent immigrants in Canada with the Canadian-born population.

Immigrants from any single country of origin are likely to be similar. Across all models, we adjust for this similarity by estimating standard errors clustering on sending country at each

destination using the Huber-White sandwich estimator to obtain robust standard errors (White 1978). Without such adjustments, the results are likely to be sensitive to the size of the immigrant sample from each source country. All regression analyses are weighted using population weights provided in the census data. Such a procedure is required by the Statistics Canada for the 20% censuses.[11]

Descriptive Results

The analysis is restricted to sending countries with at least 100 observations of recent immigrants in the U.S. sample and at least 100 observations in the Canadian sample. We further restrict the sample to only sending nations that have observations in both the U.S. and Canadian data (which we refer to as "common sending-countries"). This procedure assures that the results are not confounded by differences in sending-country composition in U.S. and Canadian immigration. After applying these restrictions, two to three percent of the observations were dropped from both the Canadian and the U.S. samples.[12] In the analysis of educational outcomes and host-country language proficiency, the sample consists of 675,340 persons from 103 common sending countries. The earnings sample consists of 137,865 women from 103 different countries, and 198,908 men from 103 countries.

Table 2 shows the descriptive statistics of recent immigrants in Canada and the U.S. To facilitate comparison, we also present the corresponding statistics for the native populations in each destination country. There is a dramatic increase in the education level of new immigrants

[11] To test if our findings are affected by the weighting procedure, we conducted all analyses with public-use Canadian censuses and U.S. censuses with and without weights. The results from both analyses were similar. For brevity, we do not present these results.

[12] We also omitted migration between Canada and the U.S. to facilitate a clearer comparison of the selectivity of immigrants. During our study period, the proportion of recent immigrants from Canada in the U.S. and the proportion of recent immigrants from the U.S. in Canada are 2 percent to 3 percent. It is likely that immigrants' who choose Canada as an intermediate stop before migrating to the U.S. may find it easier to assimilate just as immigrants who choose the U.S. before migrating to Canada. However, there is no evidence of any large scale migration between the two neighboring countries that would alter the findings of our analysis.

to Canada during the study period. In 1991, 22% of recent immigrants in Canada had a B.A. or higher degree; the proportion more than doubled to 52% by 2006. Likewise, the proportion of new immigrants with a high-school or lower education dropped from 41 to 24%. The education level of new immigrants to the U.S. also improved, but the gain was modest in comparison. The proportion of new U.S. immigrants with a high-school or lower education remained more than 50 % throughout the study period, whereas the proportion with a B.A. or higher education increased from 28 to 33 %. While host-country language proficiency has improved in Canada, the trend in the U.S. has been the opposite, with a growing number of U.S. immigrants having limited proficiency in English.

Recent immigrants in Canada are more likely to be married and to have children than those in the U.S., and the gap has widened over the study period. This result may suggest that new immigrants to Canada are more likely to migrate with their families than new immigrants to the U.S. Because immigration policy in the U.S. is more focused on family unification, this may appear to be odd. But it is not improbable given that about a third of all immigrants to the U.S. in recent years have been undocumented and, therefore, outside the purview of the immigration policy. It may also be due to the fact that a large proportion of Canadian immigrants also follow existing family relationships.

In 1990/91, recent immigrants in Canada worked about 3 fewer hours per week (or 9 % less) and one week less per year than recent immigrants in the U.S. By 2006, the gap in weeks worked was further widened with recent immigrants in the U.S. working 3 weeks more than recent immigrants in Canada.[13] Finally, in 1990/91, recent immigrants in Canada had a 14 %

[13] Some of the difference in hours worked could be due to imputation of hours worked variable in the Canadian sample for those who were unemployed or not working in the reference week but indicated having worked either full-time or part-time during the year. However, the over-time trend should not be affected as the models include receiving country fixed effects.

higher average wage (PPP adjusted expressed in U.S. dollars) than recent immigrants in the U.S., but by 2006, the wage of recent immigrants in Canada was about 2 % lower.

The disparities between recent immigrants in Canada and the U.S. noted in Table 2 could be due to differences in the sending-country mix or differences in selection patterns from the same sending country at the two destinations. The regression analysis presents a more rigorous investigation of these differences by including sending-country fixed effects. At the bottom of Table 2, we show the percent of immigrants to the two destinations from four major regions. In Canada, we see an over-time increase in immigrants from Asia. In the U.S., by contrast, Latin America has become a growing sending region. In Appendix Table A2a,b, we provide data on the educational attainment of recent immigrants at the two destinations by the top 30 sending countries in each year. On average, immigrants from most sending countries are slightly more educated in Canada than in the U.S., with a few exceptions such as immigrants from India and a number of European countries. Consistent with the global rise in educational levels, there is an over-time improvement in the educational levels of new immigrants to both countries. We also find a bi-modal pattern of immigration to the U.S. from a few sending countries (e.g.,, Philippines): compared to Canada, a larger proportion of immigrants have entered the U.S. at the two ends of the education distribution—a higher proportion with at least a B.A. degree as well as a higher proportion with a high school or lower education.

Regression Results

In Table 3, regressions are based on pooled U.S. and Canadian data, which include immigrants from Mexico. Model 1 controls for age and sex. Model 2 adds sending-country fixed effects and Model 3 further includes controls for sending- and receiving-country characteristics as well as the state/province of immigrant's current residence. We present coefficients (log odds)

because the sign makes it easier to identify a positive versus negative relationship. In interpreting results, we sometimes convert log odds to odds ratios to facilitate interpretation of specific results (in which case we show the calculation). Results in Model 1 show that in 1990 new immigrants in Canada were less likely to have a B.A. degree than those in the U.S.; they were also less likely to have a high-school or lower education. The pattern of selection gradually moved in favor of Canada. Results in Model 2, which adjusts for sending-country effects, present a clear pattern of increasing human capital among new immigrants in both Canada and the U.S. The year and Canada interactions suggest that such an increase is particularly rapid for Canada compared to the U.S. For example, in 2006, the odds for a recent U.S. immigrant to have at least a B.A. degree are almost 1.8 times as high as the odds in 1990 (exp(0.584)=1.79). In Canada, in 2006, the odds are almost 3 times as high as in 1990 (exp(0.584+0.523)=3.03). In 1990, compared to the U.S., the odds for a Canadian immigrant to hold a B.A. degree are about half as much (exp(-0.595)=0.55), but the gap is largely eliminated by 2006 (exp (-0.595+0.523)= 0.93). Similarly, there is a decline in the inflow of immigrants with a high-school or less education to both Canada and the U.S. In 1990/1991, Canada attracts a lower proportion of less-educated immigrants compared to the U.S., and this advantage continues to prevail in 2006.[14]

Comparing the estimates in Models 1 and 2 reveals that the sharp decline of less-educated and rise of high-educated inflows to Canada (compared to the U.S.) is partly due to the change in sending-country mix of immigrants: The U.S. receives more immigrants from countries with a large fraction of low educated persons (e.g., Mexico) and Canada receives more immigrants from countries with a large fraction of highly educated persons (e.g., European countries). However,

[14] We conducted additional analysis similar to Table 3 by gender and found a pattern of more favorable immigrant selection to Canada for both men and women. There is also evidence of a distinct increase in the educational attainment of recent female immigration to the U.S., but not for male immigration, resulting in a more pronounced relative negative selection of male immigrants, than female immigrants, compared to Canada.

even after adjusting for the different sending-country composition of immigrants, the gap remains substantial, which suggests that Canada has been able to draw more educated people from the same sending countries.

To be sure that the results in Table 3 are not driven by the greater Mexican immigration to the U.S., we also conducted additional analyses restricting the samples to non-Mexican immigrants in both destinations (Table 4). These analyses yielded very similar results with respect to the cross-country differences and over-time changes. Specifically, over time Canada has attracted more immigrants with a bachelor or higher degree from other countries (other than Mexico) than the U.S; Canada has also drawn a lower proportion of less educated immigrants (with a high-school or lower education) compared to the U.S. Importantly, as expected, excluding immigrants from Mexico (who tend to be less educated and earn lower incomes) reduces the Canadian advantage in drawing immigrants with higher human capital (smaller coefficients for the Canada and year interaction in Table 4 than Table 3), but the difference remains statistically significant. In other words, the relatively larger proportion of low-educated immigrants to the U.S. is not entirely on account of the large scale Mexican immigration. The negative selection pattern remains in the analysis that excludes Mexican immigrants from the samples.

As for the roles of sending-country characteristics (Models 3 in Table 3 or Table 4), per capita GDP of the sending country seems to increase the proportion of U.S. immigrants with a B.A. or higher degree but it lacks statistical significance. The coefficient of interaction between Canada and per capita GDP is negative and insignificant. When high-school or lower education is the outcome, immigrants to the U.S. from countries with higher per capita GDP are less likely to be negatively selected; and the pattern is similar for immigrants to Canada. Holding constant

per capita GDP, U.S. immigrants from sending countries with higher levels of inequality are less educated and the pattern is more pronounced for Canada. This finding lends some support to Borjas's (1987) hypothesis that immigrants from countries with greater inequality are more negatively selected in terms of their educational qualifications.

How do existing immigrant networks at the destination affect immigrant selectivity? We find that the effect of the density measure is negligible in the U.S., but in Canada, an increase in density (co-ethnic networks) has a negative effect on immigrant selection. To put in statistical terms, a one percent increase in the density of co-ethnic population decreases the odds of having a B.A. or higher degree by 37% ([exp(-0.025-0.432)=0.63] in Canada. Note that the mean of the density measure is 0.71% for the Canadian sample.[15] Thus, a 1% increase in co-ethnic density implies more than doubling of the average density level. To further investigate why immigrant density has a modest and statistically insignificant effect on immigrant inflows to the U.S., we repeat this analysis by dropping immigrants from Mexico from the U.S. and Canadian samples. The results (Table 4) reveal that the networks have a negative effect on immigration to both countries. It suggests that the massive influx of Mexican immigrants to the U.S. during the 1990s and their dispersion across the country did not follow the traditional selection patterns with more skilled people moving to newer destinations.[16]

Inspecting linear regressions with years of schooling as the dependent variable, we find that in models with sending-country effects (Model 2) the patterns are not as clear as the patterns from the two dichotomous education measures. Indeed, the results appear to suggest that there is no statistically significant difference in selection pattern between immigrant inflows to the U.S. and Canada over the study period (although the coefficients are in the expected direction). This

[15] The mean of co-ethnic density in the U.S. is 2.2% and for samples without Mexican immigrants 0.4% to 0.5%.
[16] For the two dichotomous education variables, we also conduct sensitivity analyses using linear regressions. This set of analyses yield qualitatively similar results.

suggests that using a single linear educational measure tends to conceal the actual pattern of selection. It is in the two extremes of the educational distribution that the U.S.-Canada differences are most noticeable. Note that educational thresholds (e.g., university degree) are the basis of the Canadian points system. Therefore, selection is more visible in the threshold-based outcomes than in the average.

Turning to regressions of language proficiency, we find an over-time decline in English proficiency of new immigrants to the U.S., especially in the most recent decade. The pattern is the opposite in Canada. In 1990, compared to recent immigrants to the U.S., new immigrants to Canada are more proficient in host-country language. This advantage persists over the study period, and is most pronounced in the mid 2000s. These models control for education levels; thus, the relative advantage in language proficiency among recent Canadian immigrants is net of changes due to educational improvement. Of critical significance to this substantial gap is the Canadian points system that increased the points allocated for language proficiency from 15 in 1990 to 24 since 2006.[17,18] The results for the non-Mexican immigrant sample in Table 4 display a similar pattern: A growingly higher proportion of recent Canadian immigrants are equipped with English (or French proficiency) than is the case for recent U.S. immigrants.

Results from Model 3 show that the language proficiency of new immigrants increases with the sending country per capita GDP and, for the U.S., with level of inequality. Finally, our analysis shows that new immigrants to states/provinces with denser co-ethnic networks have

[17] In additional analysis, we included a control on whether the official language of the sending country is English for U.S. immigrants, and for Canadian immigrants outside Quebec and is either English or French for Canadian immigrants in Quebec. The data are from the CIA World Fact Book. Models with country fixed-effects control for sending-country characteristics that are constant over time, including the official language of the sending country. Therefore, to estimate the effect of sending country language we run models without country fixed effects. Estimated effects are in appendix Table 3. The results show that including this variable does not change our substantive findings. The language variable itself, however, is positively related to both human capital and earnings.
[18] We also conducted the analysis on host country language proficiency excluding Quebec (the French speaking province) from the Canadian data and by defining language proficiency as English proficiency only for both countries. The results are similar to those reported.

lower language proficiency and that these networks have a much larger impact on the selective dispersion of immigrants (selective on language proficiency) within Canada than within the U.S.. Here again the point estimate of the density variable is higher when Mexicans are dropped from samples (Table 4).

Next, we study the wages of recent immigrants to investigate selection in labor market skills not captured by educational attainment and host-country language proficiency. Results are presented in Table 5, separately for women and men. These results are based on the sample including Mexican immigrants. In addition to all the predictors in Table 3, regressions in Table 5 also control for respondent's marital status, presence of children in the household, logged average wage of native-born persons by age, education, gender, and state/province of residence. Model 1 shows that in 1990/1991 recent immigrants in Canada have similar wage levels compared to recent immigrants in the U.S., but the earnings of Canadian immigrants have fallen behind by 2000 and remained so between 2000 and 2006. This earning disadvantage facing immigrants in Canada seems to go against the fact that immigrants to Canada have been generally better educated than immigrants to the U.S. (Table 3). This difference could be partially due to the observed and unobserved differences among the two groups of immigrants. In Model 2, after adjusting for the educational attainment and language proficiency of immigrants, the wage gap between recent immigrants to Canada and the U.S. becomes wider in 2000 and 2006. In Model 3, which further introduces sending-country fixed effects, the differences become somewhat smaller for men and women, but the trend remains the same. In 1990, the adjusted average wage of recent immigrant men is similar in Canada and in the U.S. (Model 3). But in 2006, the adjusted average wage in Canada becomes 24% lower than in the

U.S.[19] The results hold for women.

Results excluding immigrants from Mexico (last 3 columns in Table 4) are similar.[20] We see a significant earning differential, with recent non-Mexican immigrants to Canada faring significantly worse in hourly wage than otherwise similar immigrants to the U.S. This gap has enlarged over time during the study period. The wage premium for U.S. immigrants indeed becomes larger once we exclude immigrants from Mexico, who tend to be less educated and concentrated in low-pay occupations, and who primarily choose U.S. as the destination.

A comparison of the results in Tables 3 and 5 suggests that while the Canadian point system has been effective in screening immigrants on their observed characteristics (education and host-country language proficiency), it tends to miss out on certain unobserved characteristics that are associated with earnings (i.e., earnings, skills). This could be due to the relatively lower returns to education in Canada, which have further declined over time, especially for the foreign-born (Bonikowska, Hou, and Picot. 2011). This adverse trend in returns to education in Canada may have provided an incentive for immigrants with high unobserved qualifications (e.g., motivations) to select the U.S. over Canada. A caveat in this line of reasoning is that it assumes that all immigrants to Canada have the option to have migrated to the U.S. Arguably, potential immigrants who do not have immediate relatives in the U.S. or a job offer may not be able enter the U.S. for permanent residency, although they can use the temporary residency route to enter the U.S and subsequently apply for permanent residency.

An alternate explanation for the relative earning premium enjoyed by new U.S.

[19] The Canadian census asks year of arrival only for permanent residents, which means that temporary residents are not included in the analysis. In comparison, the US census asks year of arrival of everyone. To address this difference, we used data where the respondent lived five years ago in the Canadian data to identify recent immigrants, which is available for all respondents including temporary residents. Our findings are very similar to those reported in the paper, which was based on only permanent residents for Canada.

[20] In Table 4, we have presented the wage models for only recent immigrant men (excluding Mexican men). Estimates were similar for immigrant women (excluding immigrants from Mexico). Those results are nor presented for brevity, but are available upon request.

immigrants in recent years may be the differential local labor market conditions at the two destinations rather than immigrant selection. Such demand-side cyclical variations may be especially pertinent for the labor market outcome of immigrants compared to that of the native born. We control for the average wage of natives in the state/province of residence as a proxy for local labor market conditions. As expected, the coefficient on native wages is positive and significant. This association is less strong in Canada (Model 5). This could reflect certain labor market obstacles that recent immigrants in Canada encounter, or a mismatch between educational levels and the job openings available to Canadian immigrants (high human capital but limited high-skilled jobs) (Reitz 2001). We conduct a sensitivity analysis further controlling for the occupational categories of immigrants, but the trend noticed in Table 5 persists, indicating that changes in occupational structure are not likely to be the main explanation for the significant earnings gap between the U.S. and Canadian immigrants. A limitation of our analyses is that immigrants' reported occupation may be different from their occupation in the sending country – that is, occupations for which they have been trained. If so, our analysis would under-estimate the occupational mis-match.

Sending country characteristics do not have statistically significant effects on the wages of recent immigrants (Model 4). But an increase in destination density of co-ethnic immigrants reduces the earnings of recent immigrants, with the effect being more pronounced in Canada. A possible explanation is that recent immigrants may trade higher wages for greater ethnic amenities (Gonzalez 1998). This result also lends some support to Massey's (1987) hypothesis that immigrants become less selective as ethnic networks grow. For this outcome too, when the analyses are restricted to non-Mexican immigrants, the coefficient on density in the U.S. becomes larger (Table 4).

While the analyses in Table 5 control for native wages, it is likely that these measures do not sufficiently adjust for differences in labor market conditions in the two countries. We also run wage regressions comparing immigrants with natives separately for the U.S. and Canada (Table 6). The native-born populations in 1990 are the category of comparison. Model 1 controls for age, marital status and presence of children in the household and Model 2 additionally includes controls for education and language proficiency. Wages in this analysis are measured in each country's currency and adjust for inflation.

Estimates in Model 1 show that the average hourly real wage of U.S.-born men increases by a small margin during 1990-2000 and increases 4% by 2006. In 1990, the average real wage of recent immigrant men is 30% lower than that of U.S.-born men, the gap prevails in 2000 and 2006, although point estimates suggest a somewhat narrowing of the gap in 2000 and widening of the gap in 2006. In regressions that further adjust for education and language proficiency, the wage gap is narrowed by a third in 1990 and 2006, and is less than halved in 2000. In models that further adjusted for sending-country effects (not presented), the estimated coefficients were more or less the same.

The average real wage of native-born men in Canada is somewhat lower in 2000, but statistically the same in 2006, than in 1990. In 1990, the average wage of recent immigrant men is 28% lower than that of men born in Canada, and the gap widened to over 37% by 2006. After adjusting for education and language proficiency, the gap further rises to 47% in 2006. The gap is somewhat narrower (by about 8 percentage points in 2000 and 2006) in models that control for sending-country fixed effects. A similar story on wage gap between recent immigrants and natives emerges in the women's analysis. Overall, the results in Table 6 echo the finding in Table

5 that during 1990-2006, recent immigrants in Canada have suffered a relative wage disadvantage (compared to both the natives in Canada and recent immigrants in the U.S.).

The cross-country selection pattern may differ on account of the historical links of Canada with commonwealth countries. To study this, we stratified the data by whether the sending country is a commonwealth country and studied immigrant selection patterns from commonwealth and non-commonwealth countries at the two destinations. The estimated effects, which are generally similar, are presented in Appendix Table A4. There is an interesting difference — the relative advantage in human capital selection for Canadian immigrants (compared to U.S. immigrants) tends to be smaller for immigrants from commonwealth countries than those from non-commonwealth countries. Also, the relative initial earning disadvantage among Canadian immigrants (compared to U.S. immigrants) appears slightly larger for immigrants from commonwealth countries than those from non-commonwealth countries. This suggests that historical links between origin and destination countries tend to diminish the level of selectivity.

Conclusion and Discussion

In this paper, we study changes in selection patterns of immigrants to Canada and the U.S. during 1990-2006, a period of massive immigrant influx to both countries. We compare recent immigrants from the same sending countries who migrated during the same period by controlling for sending-country and period-of-arrival effects. Further, we assess the effect of a number of sending and receiving country characteristics, including sending-country per capita GDP and level of inequality, and the strength of immigrant networks at the destination on immigrant selection.

The results suggest that in 1990 new immigrants to Canada are less likely to hold a B.A. or higher degree than new immigrants to the U.S. But the selection pattern has sharply moved in favor of Canada. Further, in models that control for sending country fixed effects, our analysis shows that by 2006, Canada is at least as likely as the U.S. to draw highly educated immigrants (B.A.+) while consistently less likely to receive immigrants with limited education (HS-). In terms of host-country language proficiency, in 1990, recent immigrants in Canada have an edge over those in the U.S. and the next decade and a half witnessed a further improvement in new inflows to Canada. These findings suggest that the point system in Canada, especially changes in policy direction since the early 1990s that doubled the points allocated to higher education and raised the points allocated to language proficiency by 60%, has worked to draw well-educated immigrants while discouraging the low-educated.

Our results differ from those of previous U.S.-Canada comparative research that used pre-1990/1991 data and either found no difference in immigrant selection or attributed all the difference to changes in sending-country composition of immigrants (Antecol, Cobb-Clark, and Trejo 2003; Borjas 1993; Duleep and Regets 1992). In our analysis, the inclusion of sending-country fixed effects dampens, but does not eliminate, the positive selection of immigrants to Canada compared to the U.S., suggesting that the point system has had a favorable effect on immigrants' characteristics by altering the mix of source countries as well as by generating a more positive selection of immigrants from the same sending countries. In addition, our substantive results remain when we include or exclude immigrants from Mexico, who are generally of low socioeconomic background and are disproportionately concentrated in the U.S.

Our analysis on entry-level earnings of immigrants, designed to capture labor market selectivity with respect to not only observed but also unobserved immigrant characteristics, does

not reflect a relatively positive selection of immigrants to Canada compared to the U.S. Despite their superior human capital endowments, Canadian immigrants have experienced significant earning disadvantage compared to U.S. immigrants, especially since 2000. While enjoying a wage level similar to U.S. immigrants in the early 1990s, Canadian immigrants encountered an evident wage disadvantage of about 25% by the mid-2000s. Moreover, in 1990 the earnings of Canadian immigrants upon arrival were lower than those of Canadian native workers and the Canadian immigrant earnings disadvantage (compared to Canadian natives) worsened over time even as their educational attainment and language proficiency improved. Our result is similar to Bonikowska, Hou and Picot (2011) who document a widening of the wage gap between immigrants and natives in Canada during 1980-2006 for the highly educated (Bonikowska, Hou and Picot 2011).

Overall, our results indicate that the human capital attributes of immigrants are quite sensitive to destination immigration policies. But the observed human capital endowments do not entirely capture the inherent capabilities of immigrants, and immigrants to the U.S. appear to be more positively selected on unobserved productivity-related endowments than immigrants to Canada. Thus even an explicit point-based immigration policy may not be sufficiently effective in overriding the intrinsic immigrant self-selection process, which may also be influenced by other factors in the destination (e.g.,, labor market conditions and labor market institutions) (Reitz, 2007). These analyses reflect immigrants' initial labor market experiences. Tracking immigrants' labor market trajectories will provide important insight into their longer-term economic well-being, an important issue for future research.

The objective of our cross-national research has been to compare immigrant selection patterns in the U.S. and Canada to investigate the role that immigration policies played in

generating these varied immigration patterns and to point out the lessons that the two countries can draw from each others' experience. Our findings suggest that the Canadian point system has been less effective in selecting immigrants on important unobserved characteristics such as motivation. There are, however, several other potential factors that may explain our findings. It is likely that the relatively less generous safety net but higher economic returns to human capital in the U.S. have drawn immigrants with greater unobserved capabilities. It is also possible that the large immigration inflow to Canada relative to the size of Canadian labor market inhibits its ability to absorb new immigrants, which is not the case for the U.S. If so, this may cause an occupational mismatch in Canada (e.g., mismatch between the availability of white collar jobs and the scale of high-educated immigration in Canada) as speculated in other research (Reitz 2001). Yet another possibility is that business-trends may be affecting recent immigrants in Canada more adversely (relative to natives) than recent immigrants in the U.S. Finally, it is also possible that foreign educational credentials (and foreign work experience) are less rewarded in Canada than in the U.S. or that more educated immigrants in Canada encounter greater labor market discrimination (Li 2001, Picot and Sweetman 2005). To the extent that these other factors caused our findings one important lesson that can be drawn is that economic and social contexts play an important role in immigrant selection patterns and that immigration policies do not entirely override their impacts. Our findings also suggest that both Canada and the U.S. can learn from each other's experience in shaping future immigration policies.

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Appendix Table 1 Sending Country Characteristics

	1985		1995		2000			1985		1995		2001	
Sending Nation	Gini	Per capita GDP	Gini	Per capita GDP	Gini	Per capita GDP	Sending Nation	Gini	Per capita GDP	Gini	Per capita GDP	Gini	Per capita GDP
Afghanistan	44.50	1.01		0.42		0.31	Jordan	49.18	6.22	45.88	4.39		4.42
Algeria	37.18	5.53	47.09	4.97		5.35	Kenya	49.80	1.85	47.28	1.95		1.91
Argentina	42.31	10.58	44.81	11.80		12.07	Korea	38.07	7.56	36.17	16.92	37.75	19.09
Australia	33.69	22.02	38.71	26.42		31.04	Kuwait	52.40	27.70	53.70	42.81		34.83
Austria	34.35	22.69	35.17	27.79	39.03	31.77	Laos		1.19		1.51		1.79
Bangladesh	44.29	1.47		1.63		1.85	Malaysia	43.30	6.69	38.20	12.22	38.10	13.98
Barbados	42.51	19.92	44.37	20.50		22.59	Mexico	40.98	8.79	46.36	8.38	45.20	10.18
Belgium	36.80	20.86		26.18		29.74	Morocco	46.43	4.28	47.41	4.55	48.14	4.78
Belize		4.51		7.63		8.04	Netherlands	34.65	21.76	35.91	26.98	37.31	32.28
Bolivia	52.07	2.84	50.43	3.19	50.49	3.38	New Zealand	33.30	17.33	43.54	19.51		22.01
Brazil		7.79	47.50	8.17		8.40	Nicaragua	41.61	3.25		1.86		2.05
Bulgaria	28.74	5.98	40.22	6.05		6.68	Norway	32.58	28.40	34.14	35.53		42.12
Cambodia		0.99		1.44		1.85	Pakistan	46.97	2.14	49.43	2.64		2.72
Cameroon		3.46	56.79	2.26		2.44	Panama	45.54	5.75	50.25	6.51		7.00
Chile	49.26	6.96	46.11	12.48	47.46	14.68	Paraguay		4.78		4.81		4.48
China	32.89	1.46		3.15		4.38	Peru	47.65	5.02		4.74		4.92
Colombia	44.52	5.41	45.01	6.72	44.78	6.61	Philippines	46.76	3.12	48.03	3.45		3.77
Costa Rica	41.68	7.21	39.35	8.37		9.54	Poland	29.39	7.78	36.96	8.50	42.50	10.96
Cuba	30.62	9.56		6.66		7.89	Portugal	39.30	11.34		16.40		19.88
Czech Republic	20.45			14.94		16.52	Romania		7.71		6.39		6.54
Denmark	30.23	22.63	30.22	26.69		30.47	Russia			40.80	7.76		8.80
Dominican Rep.	48.28	4.58		5.78		7.60	Saudi Arabia		20.95		20.33		18.73
Ecuador	44.58	5.21	47.15	5.18	49.38	5.05	Senegal	36.30	1.89	49.26	1.69		1.76
Egypt	41.04	3.19	46.95	4.25	47.04	4.72	Sierra Leone		2.83		2.06		1.55
El Salvador	44.78	4.02	51.38	5.02		5.22	Singapore	37.67	15.93	34.37	30.10	35.92	32.87
Fiji	43.85	4.44	40.80	5.63		5.83	South Africa	43.61	7.77	44.96	7.78	45.98	8.64
Finland	31.29	19.80	34.45	20.79	35.42	27.02	Spain	38.65	15.22	39.64	20.22	39.26	25.83
France	34.39	20.70		24.18		27.64	Sri Lanka	44.19	2.96	44.47	3.91		4.57
Germany		21.24		26.56		29.26	Sudan		0.86		1.18		1.56
Ghana	54.55	1.19	53.17	1.28		1.35	Sweden	28.47	21.25	33.01	23.30	39.83	27.38
Greece	40.49	16.46	44.06	17.63	46.18	21.49	Switzerland		29.71		31.73		34.53
Guatemala	47.59	4.96	56.09	5.13		5.49	Syria	38.37	2.01	51.14	2.34		2.51
Guyana		1.50		2.45		2.48	Taiwan	29.64	8.71	31.59	17.51		20.99
Haiti	46.39	2.05		1.65		1.61	Tanzania	50.12	0.62		0.63		0.70
Honduras	45.86	3.21	47.28	3.05		3.06	Thailand	43.79	3.73		7.49		7.28
Hong Kong	25.34	20.17	37.91	30.95	38.05	32.44	Trinidad	48.32	9.56	53.15	10.61		15.60
Hungary	27.89	11.12	39.59	10.57	39.43	13.52	Turkey	42.46	4.69	47.54	5.82		5.71
India	48.59	1.69	49.14	2.24	49.60	2.76	Uganda	54.57	0.71		0.92		1.11
Indonesia	49.99	2.53	47.32	4.26		4.24	United Kingdom	34.05	18.87	35.19	23.43	36.00	27.60
Iran	35.25	5.50		7.03		8.01	Uruguay	41.73	7.67	45.35	10.74		10.95
Iraq	41.13	7.38		4.12		5.43	Venezuela	42.48	10.14	48.37	10.91		10.58
Ireland	38.66	13.84	40.56	20.89		32.61	Viet Nam		1.33		1.92		2.52
Israel	41.57	15.23	42.58	20.58		21.65	Yemen	42.58			0.91		1.13
Italy	36.52	19.97	37.24	24.76		27.56	Zimbabwe	43.76	4.11	47.03	4.69		4.13
Jamaica	55.12	6.08		8.30		7.92							
Japan	35.66	21.12	40.06	27.75	40.96	28.25							

Appendix Table 2a. Education of Recent Immigrants to Canada, Aged 25-64 (for Top 30 Sending Nations to Canada and U.S.)

1990				2000				2006			
Sending Nation	Years Of School	HS or less	B.A. or more	Sending Nation	Years Of School	HS or less	B.A. or more	Sending Nation	Years Of School	HS or less	B.A. or more
Hong Kong	13.37	0.32	0.27	China	14.64	0.21	0.58	China	14.87	0.2	0.59
China	11.53	0.53	0.25	India	13.2	0.34	0.47	India	14.13	0.3	0.55
Poland	13.63	0.29	0.22	Philippines	14.35	0.14	0.5	Philippines	14.86	0.13	0.58
Philippines	13.69	0.21	0.37	Pakistan	14.65	0.22	0.59	Pakistan	14.93	0.23	0.61
India	11.4	0.52	0.26	Hong Kong	12.89	0.44	0.22	Romania	15.47	0.11	0.68
United Kingdom	13.63	0.26	0.19	Iran	14.7	0.2	0.53	South Korea	15.34	0.14	0.64
Viet Nam	9.79	0.77	0.04	Taiwan	14.53	0.18	0.47	Iran	15.21	0.2	0.62
Lebanon	12.59	0.39	0.28	South Korea	14.82	0.14	0.58	United Kingdom	14.41	0.19	0.39
Portugal	6.94	0.87	0.01	USSR	15.57	0.06	0.63	Colombia	14.22	0.26	0.48
Iran	13.56	0.31	0.29	Sri Lanka	11.92	0.58	0.12	Sri Lanka	12.52	0.59	0.18
Sri Lanka	12.29	0.54	0.11	Romania	15.41	0.08	0.66	USSR	15.91	0.08	0.68
Jamaica	11.82	0.5	0.04	United Kingdom	14.27	0.19	0.34	France	15.36	0.11	0.56
Guyana	11.28	0.56	0.05	Yugoslavia	13.37	0.33	0.27	Algeria	15.07	0.12	0.6
El Salvador	11.05	0.55	0.08	France	15.19	0.07	0.5	Morocco	14.57	0.15	0.48
Trinidad	12.57	0.4	0.1	Bosnia	13.09	0.35	0.17	Mexico	13.14	0.34	0.42
Romania	13.83	0.24	0.31	Algeria	14.92	0.11	0.56	Bangladesh	15.53	0.19	0.68
South Korea	13.66	0.34	0.38	Bangladesh	14.88	0.21	0.61	Afghanistan	11.26	0.65	0.17
Taiwan	13.74	0.29	0.33	Viet Nam	10.05	0.7	0.08	Lebanon	14.17	0.26	0.49
USSR.	13.88	0.19	0.33	Iraq	12.68	0.39	0.33	Viet Nam	11.06	0.71	0.12
Ethiopia	11.92	0.5	0.09	Mexico	12.82	0.32	0.38	Haiti	13.17	0.31	0.25
Haiti	10.16	0.63	0.05	Jamaica	12.55	0.4	0.12	Taiwan	14.92	0.18	0.53
Germany	13.83	0.18	0.21	Afghanistan	11.66	0.47	0.22	Iraq	13.34	0.38	0.45
Malaysia	13.13	0.3	0.3	Poland	13.8	0.27	0.24	Jamaica	12.9	0.41	0.22
France	14.48	0.15	0.35	Morocco	14.81	0.12	0.49	Bulgaria	16.1	0.11	0.72
Pakistan	12.33	0.44	0.28	Guyana	11.56	0.59	0.08	Japan	14.28	0.15	0.41
Cambodia	7.68	0.86	0.02	Germany	14.55	0.09	0.34	Guyana	11.95	0.59	0.14
Yugoslavia	13.16	0.28	0.24	Lebanon	13.08	0.31	0.31	Hong Kong	13.66	0.37	0.35
Egypt	14.96	0.12	0.64	South Africa	14.53	0.14	0.42	Germany	15.14	0.1	0.48
South Africa	14.21	0.18	0.38	Cuba	14.04	0.21	0.37	Guatemala	10.19	0.52	0.18
Mexico	11.44	0.47	0.23	Colombia	15.03	0.1	0.62	Brazil	14.83	0.18	0.59
Japan	14.42	0.17	0.41	Japan	14.46	0.11	0.38	El Salvador	11.77	0.56	0.22
Dominica Rep.	10.6	0.57	0.07	El Salvador	10.91	0.57	0.12	Cuba	14.42	0.19	0.45
Colombia	12.95	0.32	0.22	Dominican Rep.	11.45	0.47	0.11	Honduras	11.18	0.37	0.24
Guatemala	11.03	0.52	0.09	Brazil	14.98	0.11	0.61	Dominican Rep.	9.777	0.58	0.22
Nicaragua	12.27	0.36	0.16	Guatemala	10.87	0.54	0.08	Peru	14.6	0.19	0.5
Peru	13.25	0.29	0.26	Honduras	12.16	0.45	0.15	Poland	14.26	0.25	0.38
Cuba	13.7	0.25	0.31	Haiti	11.69	0.46	0.13	Ecuador	13.14	0.35	0.35
Brazil	13.03	0.36	0.27	Ecuador	12.86	0.36	0.21	Nigeria	15.21	0.13	0.59
Laos	8.83	0.79	0.02	Peru	13.8	0.2	0.27	Venezuela	15.41	0.12	0.64
Honduras	11.3	0.53	0.08	Nigeria	15.2	0.11	0.55	Ethiopia	12.27	0.57	0.12
Ecuador	11.62	0.45	0.14	Venezuela	14.66	0.08	0.43	Argentina	14.81	0.21	0.57

Appendix Table 2b. Education of Recent Immigrants to the United States, Aged 25-64 (for Top 30 Sending Nations to Canada and U.S.)

1990				2000				2006			
Sending Nation	Years Of School	HS or less	B.A. or more	Sending Nation	Years Of School	HS or less	B.A. or more	Sending Nation	Years Of School	HS or less	B.A. or more
Hong Kong	12.74	0.5	0.3	China	14.2	0.31	0.57	China	13.98	0.39	0.5
China	12.38	0.47	0.4	India	15.67	0.15	0.79	India	15.9	0.14	0.81
Poland	13.03	0.53	0.26	Philippines	14.01	0.25	0.52	Philippines	14.7	0.18	0.62
Philippines	13.77	0.28	0.49	Pakistan	13.71	0.38	0.51	Pakistan	14.34	0.33	0.6
India	14.57	0.28	0.61	Hong Kong	13.57	0.4	0.43	Romania	14.43	0.34	0.48
United Kingdom	14.3	0.28	0.41	Iran	13.85	0.38	0.42	South Korea	15.65	0.14	0.72
Viet Nam	9.5	0.75	0.07	Taiwan	15.38	0.15	0.64	Iran	14.36	0.35	0.48
Lebanon	12.58	0.47	0.34	South Korea	14.77	0.24	0.58	United Kingdom	14.99	0.2	0.56
Portugal	8.1	0.84	0.08	USSR	14.57	0.3	0.5	Colombia	13.96	0.38	0.45
Iran	12.89	0.47	0.32	Sri Lanka	13.72	0.42	0.42	Sri Lanka	14.54	0.29	0.56
Sri Lanka	14.4	0.32	0.46	Romania	14.38	0.37	0.46	USSR	14.63	0.27	0.5
Jamaica	11.52	0.66	0.09	United Kingdom	15.03	0.19	0.56	France	16.81	0.09	0.8
Guyana	11.03	0.72	0.09	Yugoslavia	12.81	0.54	0.25	Algeria	13.75	0.41	0.4
El Salvador	7.33	0.88	0.04	France	16.13	0.12	0.7	Morocco	13.25	0.45	0.35
Trinidad	11.54	0.66	0.1	Bosnia	11.85	0.72	0.12	Mexico	9.02	0.86	0.07
Romania	13.15	0.5	0.34	Algeria	14.54	0.27	0.55	Bangladesh	13.27	0.44	0.46
South Korea	13.29	0.45	0.38	Bangladesh	13.43	0.42	0.44	Afghanistan	10.02	0.69	0.16
Taiwan	15.16	0.17	0.63	Viet Nam	10.28	0.75	0.1	Lebanon	14.11	0.32	0.5
USSR.	13.32	0.41	0.4	Iraq	10.61	0.64	0.2	Viet Nam	11.15	0.72	0.14
Ethiopia	12.41	0.46	0.2	Mexico	8.36	0.86	0.06	Haiti	11.46	0.61	0.15
Haiti	10.13	0.74	0.07	Jamaica	11.92	0.66	0.12	Taiwan	15.63	0.15	0.7
Germany	14.28	0.35	0.38	Afghanistan	13.31	0.45	0.38	Iraq	12.4	0.52	0.37
Malaysia	13.63	0.34	0.41	Poland	13.29	0.53	0.27	Jamaica	12.26	0.66	0.14
France	15.56	0.19	0.6	Morocco	13.56	0.35	0.39	Bulgaria	15.29	0.24	0.6
Pakistan	13.95	0.36	0.49	Guyana	10.99	0.74	0.09	Japan	15.28	0.14	0.64
Cambodia	5.82	0.83	0.05	Germany	14.99	0.26	0.51	Guyana	11.83	0.7	0.13
Yugoslavia	12.51	0.51	0.3	Lebanon	13.6	0.38	0.44	Hong Kong	13.31	0.45	0.39
Egypt	14.78	0.27	0.6	South Africa	14.89	0.19	0.57	Germany	15.44	0.23	0.59
South Africa	15.08	0.21	0.56	Cuba	12.31	0.63	0.22	Guatemala	7.84	0.86	0.06
Mexico	7.66	0.85	0.06	Colombia	12.76	0.48	0.31	Brazil	12.35	0.59	0.27
Japan	14.9	0.18	0.59	Japan	15.19	0.14	0.61	El Salvador	8.92	0.81	0.08
Dominica Rep.	9.84	0.75	0.1	El Salvador	8.02	0.84	0.07	Cuba	12.86	0.6	0.24
Colombia	11.71	0.62	0.18	Dominican Rep.	10.49	0.73	0.12	Honduras	8.96	0.85	0.07
Guatemala	7.9	0.84	0.06	Brazil	13.11	0.47	0.36	Dominican Rep.	11.4	0.64	0.2
Nicaragua	10.39	0.69	0.14	Guatemala	7.74	0.84	0.06	Peru	13.63	0.38	0.4
Peru	12.66	0.51	0.21	Honduras	8.88	0.83	0.07	Poland	14.32	0.36	0.42
Cuba	10.41	0.74	0.11	Haiti	10.93	0.69	0.09	Ecuador	11.18	0.67	0.19
Brazil	13.06	0.45	0.35	Ecuador	11.25	0.64	0.16	Nigeria	14.92	0.23	0.58
Laos	6.47	0.8	0.06	Peru	12.87	0.49	0.26	Venezuela	15.08	0.2	0.61
Honduras	9.16	0.77	0.07	Nigeria	14.32	0.25	0.47	Ethiopia	12.53	0.56	0.17
Ecuador	11.04	0.65	0.15	Venezuela	14.48	0.22	0.5	Argentina	14.6	0.3	0.55

Table 1: Canadian Point System

Category	Potential points	
	1992	2006
Education	12	25
Special vocational preparation	15	--
Experience	8	21
Occupational demand	10	--
Arranged employment/designated occupation	10	10
Age	10	10
Knowledge of French or English	15	24
Adaptability*	--	10
Personal suitability	10	--
Levels control	10	--
Total	100	100
Points Required for Entry	70	67

Sources: 2006 point system, Birrell and McIsaac (2006: table 2.1); 1992 point system, Green and Green (1995: table 1)

Notes: In 2006, 25 points were allocated to those with Masters Degree or PhD and 20-22 points to those with trade qualifications. Persons with a bachelor degree received 20 points, those with a one-year diploma, 15 points, and those who had completed high school, 5 points (Birrell and McIsaac 2006).
*Adaptability points could be awarded for spouse's education, previous study in Canada, previous work in Canada, arranged employment, and relatives in Canada.

Table 2: Sample Description

	Recent Immigrants						Natives					
	Canada			United States			Canada			United States		
	1991	2001	2006	1990	2000	2005-2007	1991	2001	2006	1990	2000	2005-2007
Bachelor's Degree or Higher	0.22	0.44	0.52	0.28	0.32	0.33	0.13	0.18	0.20	0.23	0.27	0.29
High School or Less	0.41	0.25	0.24	0.55	0.53	0.54	0.47	0.38	0.41	0.49	0.42	0.40
Total Years of Schooling	12.47	13.99	14.28	11.49	11.98	12.16	12.26	12.91	13.38	12.93	13.35	13.54
Host Country Language Proficiency	0.82	0.86	0.86	0.56	0.55	0.50	0.99	0.99	0.99	0.99	0.99	1.00
Married	0.72	0.78	0.78	0.56	0.55	0.51	0.64	0.56	0.53	0.66	0.62	0.58
Households with Children	0.63	0.63	0.62	0.48	0.47	0.43	0.59	0.51	0.48	0.53	0.48	0.45
Male	0.49	0.48	0.47	0.51	0.51	0.52	0.50	0.50	0.49	0.49	0.49	0.49
Age (Years)	37.12	38.14	38.25	35.70	35.89	36.18	40.83	42.83	44.04	41.39	42.86	44.00
Hours Worked Per Week	38.16	38.71	39.01	40.92	41.21	40.81	37.99	39.31	39.56	40.53	41.28	41.07
Weeks Worked	40.23	40.58	40.43	41.56	42.62	43.49	44.76	46.21	46.43	46.16	47.06	46.71
Hourly Earnings in U.S. dollars (PPP adjusted)	11.93	15.54	15.93	10.44	15.79	16.27	14.81	18.42	21.16	13.00	18.66	22.72
Real Hourly Earnings (Expressed in host country currency)	17.90	19.23	17.15	14.02	15.79	13.88	22.43	22.89	23.12	17.46	18.66	19.38
Proportion of immigrants by region of origin												
Asia	0.44	0.54	0.53	0.34	0.27	0.27						
Europe, Australia, New Zealand	0.25	0.23	0.20	0.15	0.17	0.12						
Africa and Middle East	0.15	0.15	0.16	0.07	0.07	0.07						
Latin America and Carribbean	0.16	0.09	0.11	0.44	0.49	0.54						

Source: Canadian census 1991, 2001, and 2006; U.S. census 1990, 2000, and American Community Survey 2005-2007, samples are restricted to non-elderly adults aged 25-64; the samples of recent immigrants are further restricted to foreign-born persons living in the host country for five years or less. Real hourly earnings are adjusted for inflation using 2000 dollars as reference. Immigrants may be excluded from sample due to missing data on country of birth, less than 100 cases over the three Censuses, appearance in only one Census, or enumeration in only Canada or the United States.

Table 3. Educational Attainment and Language Proficiency of Recent Immigrants, Age 25-64

	Bachelor's Degree or Higher Logit Model (log-odds ratio)			High School Degree or Less Logit Models (log-odds ratio)			Years of Schooling OLS Model			Host Country Language Proficiency Logit Model (log-odds ratio)		
	1	2	3	1	2	3	1	2	3	1	2	3
Year												
2000	0.202	0.392***	0.395***	-0.079	-0.299***	-0.297***	0.479	0.758***	0.789***	-0.143*	-0.012	-0.197***
(omitted category 1990)	(0.157)	(0.064)	(0.121)	(0.158)	(0.079)	(0.111)	(0.321)	(0.077)	(0.119)	(0.077)	(0.030)	(0.060)
2006	0.247	0.584***	0.655***	-0.062	-0.423***	-0.401*	0.662**	1.245***	1.416***	-0.484***	-0.315***	-0.596***
	(0.199)	(0.086)	(0.203)	(0.193)	(0.109)	(0.219)	(0.302)	(0.101)	(0.160)	(0.138)	(0.092)	(0.135)
Receiving Country Characteristics												
Canada	-0.310	-0.595***	--	-0.585*	-0.364**	--	1.001	0.021	--	1.351***	0.911***	--
	(0.279)	(0.117)		(0.299)	(0.154)		(0.887)	(0.249)		(0.235)	(0.119)	
Canada × 2000	0.843***	0.433***	0.590***	-0.642***	-0.240	-0.297*	1.135***	0.294	0.483**	0.082	0.136	0.444**
	(0.188)	(0.123)	(0.131)	(0.199)	(0.149)	(0.166)	(0.427)	(0.231)	(0.211)	(0.140)	(0.104)	(0.185)
Canada × 2006	1.088***	0.523***	0.709***	-0.715***	-0.135	-0.292	1.138***	-0.033	0.280	0.279	0.365**	1.091***
	(0.197)	(0.109)	(0.224)	(0.213)	(0.162)	(0.282)	(0.386)	(0.219)	(0.355)	(0.222)	(0.174)	(0.284)
Density			-0.025			0.021			-0.029			-0.030***
			(0.021)			(0.014)			(0.018)			(0.009)
Density × Canada			-0.432**			0.445***			-0.698**			-0.574***
			(0.172)			(0.172)			(0.292)			(0.138)
Sending Nation Characteristics												
GDP per Capita			0.019			-0.042*			0.005			0.032***
			(0.019)			(0.022)			(0.026)			(0.011)
GDP per capita× Canada			-0.011			-0.015			0.016			0.005
			(0.010)			(0.015)			(0.018)			(0.012)
Gini coefficient			-0.030**			0.030*			-0.044**			0.024***
			(0.014)			(0.016)			(0.017)			(0.009)
Gini coefficient ×			-0.025*			0.022			-0.032			-0.029*
Canada			(0.014)			(0.017)			(0.025)			(0.016)
N	675340	675340	416407	675340	675340	416407	675340	675340	416407	675340	675340	416407

Notes: *** for p<0.01, ** for p<0.05, and * for p<0.1. Recent immigrants in the U.S. and Canada are the sample of analysis, which include immigrants from Mexico (see notes to Table 2). All models control for age and sex. Models 2 and 3 also control for sending country fixed effects and Model 3 additionally controls for state/province fixed effects. All host country language proficiency models control for educational attainment. Standard errors are clustered by sending-receiving nations.

Table 4. Educational Attainment, Language Proficiency, and Hourly Earnings of Recent Immigrants (born outside of Mexico), Age 25-64

	Bachelor's Degree or Higher Logit Model (log-odds ratio)			High School Degree or Less Logit Models (log-odds ratio)			Language Proficiency Logit Model (log-odds ratio)			Log Hourly Earnings (PPP) Men		
	1	2	3	1	2	3	1	2	3	1	2	3
Year												
2000	0.388***	0.418***	0.478***	-0.311***	-0.362***	-0.427***	-0.038	-0.004	-0.120*	0.207***	0.231***	0.269***
	(0.110)	(0.063)	(0.114)	(0.096)	(0.062)	(0.088)	(0.084)	(0.037)	(0.061)	(0.043)	(0.031)	(0.034)
2006	0.514***	0.633***	0.900***	-0.375***	-0.524***	-0.810***	-0.257***	-0.199***	-0.204**	0.190***	0.239***	0.301***
	(0.131)	(0.080)	(0.145)	(0.121)	(0.084)	(0.137)	(0.097)	(0.053)	(0.096)	(0.054)	(0.038)	(0.050)
Receiving Country Characteristics												
Canada	-0.571***	-0.585***	--	-0.294	-0.400***	--	1.175***	0.953***	--	-0.019	-0.007	--
	(0.186)	(0.114)	(0.491)	(0.197)	(0.144)	(0.627)	(0.238)	(0.108)	(0.653)	(0.059)	(0.027)	
Canada × 2000	0.690***	0.406***	0.532***	-0.446***	-0.168	-0.198	0.037	0.123	0.407**	-0.210***	-0.167***	-0.113**
	(0.159)	(0.124)	(0.125)	(0.166)	(0.144)	(0.153)	(0.150)	(0.110)	(0.195)	(0.040)	(0.033)	(0.044)
Canada × 2006	0.865***	0.468***	0.465***	-0.450***	-0.021	0.111	0.134	0.229	0.692***	-0.249***	-0.220***	-0.168***
	(0.143)	(0.107)	(0.173)	(0.164)	(0.151)	(0.215)	(0.208)	(0.159)	(0.305)	(0.044)	(0.034)	(0.062)
Density			-0.209***			0.204***			-0.230***			-0.033***
			(0.065)			(0.058)			(0.050)			(0.012)
Density × Canada			-0.195			0.185			-0.287**			-0.028
			(0.148)			(0.141)			(0.120)			(0.025)
Average Wage										0.531***	0.515***	0.509***
										(0.056)	(0.049)	(0.124)
Average Wage × Canada												-0.263***
												(0.087)
Sending Nation Characteristics												
Income Per Capita			0.007			-0.024			0.020***			0.000
			(0.017)			(0.018)			(0.007)			(0.006)
Income × Canada			-0.007			-0.017			0.008			0.001
			(0.009)			(0.011)			(0.012)			(0.003)
Gini Coefficient			-0.034***			0.035***			0.008			-0.005
			(0.012)			(0.012)			(0.007)			(0.004)
Gini × Canada			-0.025**			0.020			-0.025*			-0.003

			(0.012)			(0.015)			(0.015)			(0.003)
Constant	-1.544***	-1.187***	0.081	0.905***	0.871***	-0.318	-1.393***	-2.438***	-2.607***	0.304**	0.305**	0.371
	(0.142)	(0.141)	(0.461)	(0.153)	(0.097)	(0.462)	(0.276)	(0.163)	(0.417)	(0.121)	(0.137)	(0.294)
N	576154	576154	317235	576154	576154	317235	576149	576149	317230	154953	154953	88645

Notes: *** for p<0.01, ** for p<0.05, and * for p<0.1. Recent immigrants (excluding those born in Mexican) in the US and Canada are the sample of analysis (see notes to Table 1). All models control for age and sex. Models 2-3 additionally control for sending country fixed effects, and Model 3 adds state/province fixed effects. All language and earnings models adjust for educational attainment. The earnings models also include controls for presence of children in the household and marital status. The education and language regressions correspond to Model 1-3 in Table 3 and the earnings regressions correspond to Model 2, 3, and 5 in Table 4. Hourly earnings are adjusted for purchasing power parity.

Table 5. Log Hourly Earnings of Recent Immigrants, Age 25-64 (OLS Model)

	Women					Men				
	1	2	3	4	5	1	2	3	4	5
Year=2000	0.087***	0.183***	0.219***	0.190***	0.211***	0.080**	0.209***	0.252***	0.263***	0.274***
	(0.015)	(0.020)	(0.020)	(0.038)	(0.033)	(0.032)	(0.031)	(0.025)	(0.037)	(0.035)
Year=2006	0.002	0.168***	0.225***	0.182***	0.215***	-0.025	0.211***	0.285***	0.293***	0.312***
	(0.023)	(0.029)	(0.026)	(0.050)	(0.047)	(0.047)	(0.044)	(0.038)	(0.041)	(0.036)
Receiving Country Characteristics										
Canada	0.012	0.013	-0.019	--	--	0.038	0.025	0.006	--	--
	(0.033)	(0.033)	(0.017)			(0.066)	(0.063)	(0.025)		
Canada × 2000	-0.118***	-0.155***	-0.141***	-0.133***	-0.093***	-0.157***	-0.213***	-0.171***	-0.177***	-0.120***
	(0.024)	(0.025)	(0.024)	(0.026)	(0.031)	(0.031)	(0.034)	(0.029)	(0.033)	(0.040)
Canada × 2006	-0.094***	-0.169***	-0.157***	-0.181***	-0.125***	-0.159***	-0.269***	-0.240***	-0.260***	-0.177***
	(0.032)	(0.035)	(0.034)	(0.034)	(0.038)	(0.037)	(0.040)	(0.031)	(0.037)	(0.054)
Density				-0.009***	-0.009***				-0.008***	-0.008***
				(0.002)	(0.002)				(0.002)	(0.002)
Density × Canada				-0.047**	-0.048**				-0.060**	-0.061**
				(0.019)	(0.019)				(0.026)	(0.026)
Average Wage	0.838***	0.552***	0.506***	0.620***	0.556***	0.971***	0.506***	0.445***	0.527***	0.485***
	(0.039)	(0.044)	(0.043)	(0.128)	(0.117)	(0.069)	(0.051)	(0.057)	(0.084)	(0.070)
Average Wage × Canada				--	-0.155*				--	-0.200**
					(0.082)					(0.090)
Sending Nation Characteristics										
Income Per Capita				0.001	0.001				0.001	0.001
				(0.004)	(0.004)				(0.005)	(0.005)
Income × Canada				0.003	0.003				0.001	0.001
				(0.003)	(0.003)				(0.003)	(0.003)
Gini Coefficient				0.002	0.002				-0.005	-0.005
				(0.003)	(0.003)				(0.004)	(0.004)
Gini × Canada				-0.004	-0.004				-0.002	-0.003
				(0.003)	(0.002)				(0.003)	(0.003)
N	136965	136960	136960	82490	82490	195871	195865	195865	129557	129557

Note: *** for p<0.01, ** for p<0.05, and * for p<0.1. Recent immigrants in the U.S. and Canada (by gender) are the sample of analysis (see Notes to Table 2). All models control for age, marital status, and presence of children in household. Models 2-5 also control for host country language proficiency and education level. Models 3-5 additionally

control for sending country fixed effects. Models 4-5 further control for state/province fixed effects. Hourly earnings are adjusted for purchasing power parity. Standard errors are clustered by sending-receiving country. The sample includes immigrants from Mexico. For corresponding models excluding Mexican immigrants, please refer to Table 4.

Table 6. Log Hourly Earnings of Recent Immigrants and Natives, Age 25-64 (OLS Model)

	United States				Canada			
	Women		Men		Women		Men	
	1	2	1	2	1	2	1	2
Year								
2000	0.088***	0.038***	0.011***	-0.015***	0.033***	-0.021**	-0.028***	-0.052***
(omitted category 1990)	(0.002)	(0.005)	(0.003)	(0.003)	(0.002)	(0.008)	(0.002)	(0.004)
2006	0.143***	0.066***	0.040***	-0.004	0.069***	-0.005	-0.002	-0.033***
	(0.003)	(0.006)	(0.004)	(0.003)	(0.003)	(0.011)	(0.004)	(0.007)
Foreign-born	-0.229***	-0.119***	-0.295***	-0.179***	-0.223***	-0.224***	-0.284***	-0.293***
	(0.050)	(0.025)	(0.090)	(0.051)	(0.022)	(0.025)	(0.030)	(0.028)
Foreign-born × 2000	-0.004	0.018	0.067	0.074***	-0.023	-0.077***	0.018	-0.053**
	(0.034)	(0.017)	(0.051)	(0.027)	(0.019)	(0.019)	(0.025)	(0.022)
Foreign-born × 2006	-0.109**	-0.083***	-0.058	0.008	-0.111***	-0.190***	-0.094***	-0.177***
	(0.044)	(0.024)	(0.048)	(0.028)	(0.021)	(0.026)	(0.019)	(0.025)
N	594793	594769	664903	664868	289158	289158	332983	332983

Note: *** for p<.01, ** for p<.05, and * for p<.1. Ten percent random sample of native-born persons and all recent immigrants, by destination country and gender (as listed in column headings) are the samples of analyses. All models control for age, marital status and presence of children in household. Model 2 also controls for educational attainment and English language proficiency in the U.S.; and English/French language proficiency in Canada (see text for further description of these controls). Standard errors are clustered by sending-receiving country. Hourly earnings, adjusted for host country inflation, are expressed in the host country currency.

Appendix Table 3. Educational Attainment, Language Proficiency, and Hourly Earnings of Recent Immigrants (Controlling for Sending Country Language)

	Logit Model (log-odds ratio)			OLS Models			
	B.A.	HS	Host Country Language Proficiency	Log Earning: Women		Log earnings: Men	
	1	1	1	1	2	1	2
Year							
2000	0.227*	-0.100	-0.092*	0.118***	0.196***	0.101***	0.216***
	(0.136)	(0.137)	(0.050)	(0.015)	(0.022)	(0.037)	(0.034)
2006	0.271	-0.079	-0.452***	0.044*	0.184***	0.010	0.221***
	(0.174)	(0.169)	(0.113)	(0.023)	(0.031)	(0.055)	(0.048)
Receiving Country Characteristics							
Canada	-0.539**	-0.399*	1.122***	-0.010	0.005	0.013	0.015
	(0.222)	(0.240)	(0.168)	(0.034)	(0.037)	(0.064)	(0.062)
Canada × 2000	0.921***	-0.706***	0.085	-0.121***	-0.156***	-0.159***	-0.213***
	(0.211)	(0.226)	(0.133)	(0.023)	(0.024)	(0.034)	(0.034)
Canada × 2006	1.169***	-0.770***	0.324	-0.099***	-0.168***	-0.170***	-0.271***
	(0.225)	(0.242)	(0.208)	(0.035)	(0.035)	(0.041)	(0.040)
Average Wage				0.780***	0.530***	0.906***	0.484***
				(0.030)	(0.045)	(0.064)	(0.055)
Sending Nation Characteristics							
Language	0.999**	-1.143***	2.225***	0.156***	0.091**	0.163**	0.096
	(0.451)	(0.427)	(0.275)	(0.040)	(0.036)	(0.075)	(0.071)
Constant	-2.013***	1.397***	-2.104***	-0.096	0.412***	-0.642***	0.400***
	(0.311)	(0.287)	(0.155)	(0.084)	(0.101)	(0.158)	(0.131)
N	675383	675383	675370	136978	136973	195899	195893

Note: *** for p<.01, ** for p<.05, and * for p<.1. The variable language is equal to 1 if the official language of the sending country is English for immigrants in the U.S. and for Canadian immigrants outside Quebec, and is either English or French for Canadian immigrants in Quebec. All models control for age and sex. All language and earnings models adjust for educational attainment. The earnings models also include controls for presence of children in the household and marital status. The education and language regressions correspond to Model 1 in Table 3 and the earnings regressions correspond to Model 1 and 2 in Table 5. Hourly earnings are adjusted for purchasing power parity.

Appendix Table 4. Educational Attainment, Language Proficiency, and Hourly Earnings of Recent Immigrants (by Commonwealth Membership), Age 25-64

Sending countries/	Bachelor's Degree or Higher Logit Model (log-odds ratio)			High School Degree or Less Logit Models (log-odds ratio)			Language Proficiency Logit Model (log-odds ratio)			Log Hourly Earnings (PPP) of Men		
Non-Commonwealth	1	2	3	1	2	3	1	2	3	1	2	3
Year=2000	0.080	0.318***	0.262***	0.007	-0.255***	-0.193*	-0.138*	0.005	-0.234***	0.202***	0.247***	0.264***
	(0.147)	(0.074)	(0.100)	(0.152)	(0.088)	(0.112)	(0.071)	(0.032)	(0.071)	(0.031)	(0.022)	(0.025)
Year=2006	0.098	0.519***	0.484**	0.044	-0.382***	-0.232	-0.479***	-0.308***	-0.655***	0.213***	0.288***	0.315***
	(0.173)	(0.092)	(0.221)	(0.171)	(0.118)	(0.209)	(0.124)	(0.099)	(0.146)	(0.049)	(0.038)	(0.035)
Canada	-0.162	-0.424***	--	-0.697**	-0.493***	--	1.402***	1.067***	--	0.039	0.026	--
	(0.308)	(0.090)		(0.336)	(0.138)		(0.222)	(0.120)		(0.071)	(0.017)	
Canada × 2000	0.939***	0.471***	0.606***	-0.841***	-0.362*	-0.519***	0.147	0.180	0.285*	-0.179***	-0.136***	-0.094**
	(0.210)	(0.177)	(0.111)	(0.226)	(0.195)	(0.190)	(0.171)	(0.135)	(0.162)	(0.033)	(0.025)	(0.036)
Canada × 2006	1.191***	0.605***	0.886***	-0.905***	-0.294	-0.645**	0.348	0.394*	1.151***	-0.248***	-0.208***	-0.102**
	(0.192)	(0.124)	(0.218)	(0.218)	(0.189)	(0.258)	(0.280)	(0.230)	(0.275)	(0.042)	(0.027)	(0.050)
N	533125	533125	315288	533125	533125	315288	533114	533114	315277	151622	151622	96525
Commonwealth												
Year=2000	0.708***	0.543***	0.730***	-0.528***	-0.400***	-0.596***	-0.358*	-0.102	-0.223**	0.248**	0.263**	0.246***
	(0.144)	(0.140)	(0.136)	(0.127)	(0.131)	(0.113)	(0.186)	(0.081)	(0.093)	(0.105)	(0.102)	(0.063)
Year=2006	0.965***	0.800***	1.001***	-0.729***	-0.600***	-0.867***	-0.649***	-0.408***	-0.643***	0.232*	0.254**	0.203***
	(0.168)	(0.141)	(0.165)	(0.166)	(0.153)	(0.137)	(0.161)	(0.081)	(0.138)	(0.125)	(0.111)	(0.048)
Canada	-1.036***	-1.042***	--	0.047	-0.055	--	-0.300	-0.105	--	-0.023	-0.007	--
	(0.388)	(0.191)		(0.289)	(0.314)		(0.628)	(0.252)		(0.123)	(0.072)	
Canada × 2000	0.493***	0.356**	0.259*	0.016	0.056	0.104	0.058	0.338	0.376**	-0.283***	-0.245***	-0.181**
	(0.176)	(0.157)	(0.133)	(0.163)	(0.165)	(0.185)	(0.222)	(0.211)	(0.188)	(0.083)	(0.077)	(0.087)
Canada × 2006	0.623***	0.408***	0.340*	0.042	0.174	0.258	0.232	0.590***	0.541*	-0.308***	-0.287***	-0.136
	(0.168)	(0.126)	(0.191)	(0.188)	(0.197)	(0.300)	(0.231)	(0.217)	(0.299)	(0.088)	(0.070)	(0.089)
N	142258	142258	101083	142258	142258	101083	142256	142256	100721	44271	44271	33032

Notes: *** for p<.01, ** for p<.05, and * for p<.1. Recent immigrants in the U.S. and Canada are the sample of analysis (see notes to Table 2). All models control for age and sex. Models 2-3 additionally control for sending country fixed effects, and Model 3 adds state/province fixed effects. All language and earnings models adjust for educational attainment. The earnings models also include controls for presence of children in the household and marital status. The education and language regressions correspond to Model 1-3 in Table 3 and the earnings regressions correspond to Model 2, 3, and 5 in Table 5. Hourly earnings are adjusted for purchasing power parity.