Analytical Studies Branch Research Paper Series

Labour Market Outcomes Among Refugees to Canada

by Garnett Picot, Yan Zhang and Feng Hou

Release date: March 11, 2019

Statistics Canada   Statistique Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

Email at STATCAN.infostats-infostats.STATCAN@canada.ca

Telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service   1-800-263-1136
- National telecommunications device for the hearing impaired   1-800-363-7629
- Fax line   1-514-283-9350

Depository Services Program

- Inquiries line   1-800-635-7943
- Fax line   1-800-565-7757

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "Standards of service to the public."

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Labour Market Outcomes Among Refugees to Canada

by

Garnett Picot
Institute for Research on Public Policy; and Research and Evaluation Branch,
Immigration, Refugees and Citizenship Canada

Yan Zhang and **Feng Hou**
Social Analysis and Modelling Division
Statistics Canada

March 2019

Analytical Studies Branch
Research Paper Series

The Analytical Studies Branch Research Paper Series provides for the circulation of research conducted by Analytical Studies Branch staff and collaborators. The Series is intended to stimulate discussion on a variety of topics, such as labour, immigration, education and skills, income mobility, well-being, aging, firm dynamics, productivity, economic transitions, and economic geography. Readers of the Series are encouraged to contact the authors with their comments and suggestions.

All the papers in the Analytical Studies Branch Research Paper Series go through institutional and peer review to ensure that they conform to Statistics Canada's mandate as a governmental statistical agency and adhere to generally accepted standards of good professional practice.

Table of contents

Abstract

Canada welcomed over 830,000 refugees from the 1980s to 2000s. However, their economic outcomes, especially the variation among major refugee groups, have not been examined comprehensively. Using the Longitudinal Immigration Database, this paper examines the labour market outcomes of refugees from 13 source countries with large inflows to Canada over the 1980-to-2009 period. The analysis first compares employment rates and earnings among refugees from the 13 source countries. It further compares each refugee group with economic-class and family-class immigrants who arrived during the same period. The results reveal a very large variation in employment rates and average earnings among the 13 refugee groups. Groups with low employment rates tended to have low earnings levels among the employed. Groups with low (high) employment rates and earnings among the men also tended to have low (high) rates among the women. Very little of the variation in earnings among refugee groups could be accounted for by differences in observable human capital characteristics, economic conditions or the program of entry to Canada. Privately sponsored refugees earned more than comparable government assisted refugees during the initial years in Canada. However, this advantage disappeared after a decade in the country.

Executive summary

Although not selected for economic reasons, refugees must survive economically in the receiving country and can make a significant economic contribution. Hence, their labour market outcomes are of interest. However, relatively few studies of the economic outcomes of refugees have been undertaken in either Canada or the United States. In particular, virtually no studies have been conducted on the variation in the economic outcomes of refugees from a range of source countries. This is the topic of this paper.

The focus is on the labour market outcomes of refugees from the 13 countries (or groups of countries) with the largest inflows to Canada over the 1980-to-2009 period. These groups include refugees from Afghanistan, China, Colombia, El Salvador, Ethiopia, the former Yugoslavia (as one group), Iran, Iraq, Pakistan, Poland, Somalia, Sri Lanka, and Viet Nam, Cambodia and Laos (the three countries as one group). In addition to determining the economic outcomes of refugees entering Canada during the three decades leading up to 2009, this analytical framework will be useful when data for more recent refugees (e.g., from Syria) become available.

With some exceptions, employment rates after five years in Canada were substantial among refugees. Male refugees from 7 of the 13 countries had employment rates over 75% five years after entry. However, those from Iran and Somalia had very low employment rates. Female refugees from Iraq, Afghanistan, Pakistan and Somalia also displayed very low employment rates.

Among the employed, the earnings of refugees from different countries varied greatly. Ten years after entering Canada, the refugee groups with the highest earnings (i.e., from the former Yugoslavia, Poland and Colombia) earned roughly double what those with the lowest earnings did (i.e., from Somalia, Afghanistan, Pakistan and China). Differences in outcomes were accentuated by the fact that groups with low (high) employment rates tended to have low (high) earnings levels among the employed, and groups with high employment rates tended to have high earnings among the employed. Furthermore, male and female refugees from the same country tended to have similarly low (high) relative earnings. These high correlations in men's and women's earnings across groups tended to exacerbate any poverty issues for refugees with low earnings.

Differences among the groups in observable human capital characteristics (notably educational attainment, age and knowledge of an official language), as well as in economic conditions, years in Canada and the program of entry to Canada, explained either none or very little of the much lower than average earnings of the refugee groups with the lowest earnings. Other unknown and unobserved factors accounted for the very low earnings. One possible explanation is that the education that these groups received in their home countries may have been of lower quality or have been perceived to be of lower quality by employers, thereby affecting the wages paid. The paper includes some evidence to support this notion. Other unobserved factors that may have contributed to the earnings differences among the groups could include

- perceived or actual differences among refugee groups in source-country labour market experience
- cultural factors affecting labour market success
- discrimination
- the acquisition of official language skills in Canada
- the acquisition of occupational training in Canada
- the quality of Canadian work experience
- the support received from ethnic communities in Canada
- the willingness to move to find a good job.

Refugees' economic outcomes are often compared with those of family-class immigrants—the group they most closely resemble. Immediately after entry, refugees from all countries earned less than family-class immigrants. However, the five refugee groups with the highest earnings (i.e., from the former Yugoslavia; Poland; Colombia; Viet Nam, Cambodia and Laos; and El Salvador) displayed much more rapid earnings growth than did the family- and economic-class immigrants entering during the same period. After 15 years, they earned from 80% to 110% of what family-class immigrants did. The story was very different for refugees in the five lowest earnings groups (i.e., from Iraq, Somalia, Afghanistan, Pakistan and China). Even after 15 years in Canada, they earned from 50% to 70% of what family-class immigrants did. For these groups, observable differences in educational attainment, language ability, economic conditions and the other observed factors mentioned above accounted for very little of the earnings gap with family-class immigrants. Once again, unobserved and unknown factors played a major role.

Finally, the program under which refugees entered Canada seemed to matter, at least in the initial years. Even after differences in observable human capital (e.g., education and language), source country, and economic conditions were accounted for, privately sponsored refugees earned more than government-assisted refugees in the first year in Canada. While differences in human capital factors did not account for the initial earnings gap, they did account for most of the earnings gap 10 years after immigration. This suggests that the program of entry has little effect on earnings after a decade.

1 Introduction

Refugees to Canada are not admitted for economic reasons. Rather, they are people who have fled their home country because of "a well-founded fear of persecution based on race, religion, nationality, political opinion or membership in a particular social group, as well as those at risk of torture or cruel and unusual treatment or punishment" (*Immigration and Refugee Protection Act* 2001). Nonetheless, they must survive economically in the receiving country in the long run, and they can make a significant economic contribution to that country. Hence, their labour market outcomes are of interest. However, relatively few studies of the economic outcomes of refugees have been undertaken in either Canada or the United States. In particular, virtually no studies have been conducted on the variation in the economic outcomes of refugees from a range of source countries.

Refugees from different source regions experience different economic outcomes after arrival for a number of reasons. Human capital characteristics—notably education and labour market experience—may differ. The quality—actual or perceived—of the human capital and labour market experience acquired in different source countries may vary. Different refugee groups face different types of humanitarian crises in their home countries. Some flee their home countries and stay in refugee camps before arriving in Canada; others come to Canada directly. Some groups are resettled directly by government agencies, while some are sponsored (at least in part) by private organizations and individuals (Painter and Kokallaj 2017). Depending on their racial background and their national socioeconomic condition at the time of their arrival, refugee groups may be accommodated differently when they start their resettlement in Canada. Theory suggests that the context of the exit from their home country and the reception encountered in the receiving country, together with a group's human capital resources, likely affect the path and pace of integration among immigrants and refugees (Alba and Nee 2003; Portes and Zhou 1993). Cultural differences regarding the role played by different family members in the labour market may also be important.

As humanitarian crises rise and recede around the world, the countries from which refugees flee shift. And while refugees enter Canada from many countries at any given time, some countries are numerically dominant with respect to refugee flows. This changes over time. During the 1980s, refugee flows to Canada were dominated by Viet Nam, Poland and El Salvador. During the early 1990s, Somalia, Sri Lanka and Iraq were the major source countries for refugees to Canada. By the mid-1990s, the major sources shifted to Sri Lanka and the former Yugoslavia. In the late 1990s and early 2000s, these two countries were joined by Afghanistan. Colombia, China, Afghanistan, Pakistan and Sri Lanka were the largest refugee source countries in the mid-2000s, and, by the late 2000s, the largest groups of refugees came from Colombia, Iraq and Sri Lanka. In the early 2010s, Iraq and Haiti were the largest source countries of refugees.

Over the 30 years from 1980 to 2009—the period of interest in this study—Canada accepted 831,000 refugees, an average of about 28,000 per year. Of course, the number varied greatly annually, ranging from a low of 14,000 in 1983 to a high of 54,000 in 1991 (Chart 1). In general, fewer refugees entered during the 1980s, with an average of about 22,000 per year, and more entered in the 1990s, with an average of 33,000 per year. The 2000s saw an average of about 28,000 per year.

Chart 1
Number of refugees landed in Canada, 1980 to 2014
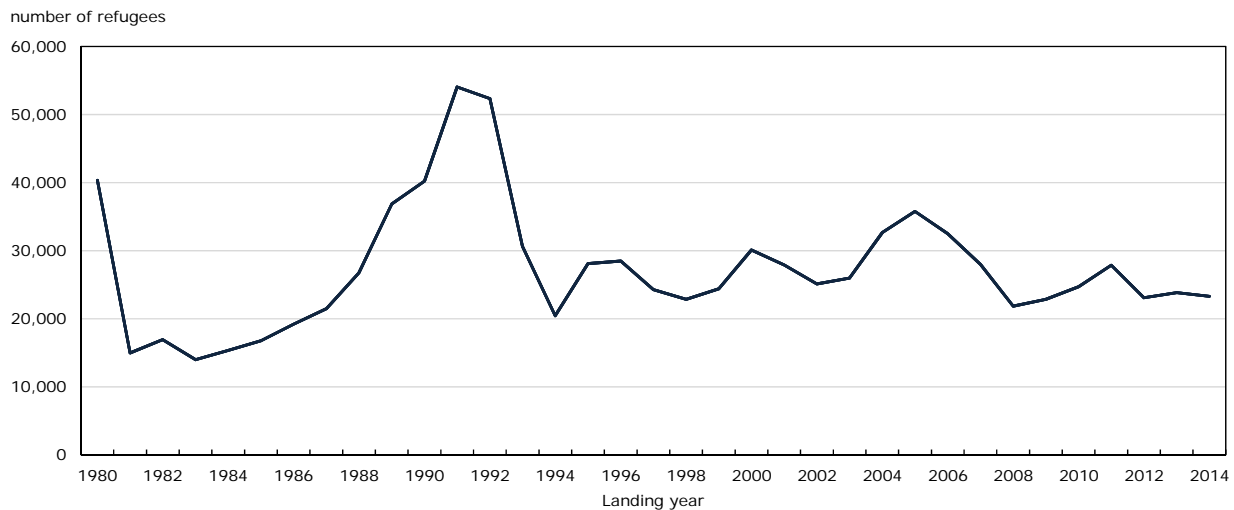
number of refugees

This paper focuses on the labour market outcomes of refugees from 13 countries (or groups) with large inflows to Canada over the 1980-to-2009 period. These groups include refugees from Afghanistan, China, Colombia, El Salvador, Ethiopia, the former Yugoslavia (as one group), Iran, Iraq, Pakistan, Poland, Somalia, Sri Lanka, and Viet Nam, Cambodia and Laos (the three countries as one group). In addition to determining the economic outcomes of refugees entering Canada during the three decades leading up to 2009, this analytical framework will be useful when data for more recent refugees (e.g., from Syria) become available.

Cohorts of entering refugees from these countries were identified, and their outcomes were tracked for up to 15 years after entering Canada. This study first addresses the variation in earnings and employment rates among refugees from the 13 countries, and then examines whether human capital characteristics, program of entry or local labour market conditions can explain such variation. It further compares the earnings of each refugee group with those of the family- and economic-class immigrants who arrived during the same period.

The paper also addresses the outcomes of three different streams of refugees: government-assisted refugees, refugees with private sponsorship and refugees in the In-Canada Asylum Program. Some previous studies have shown considerable variation in socioeconomic outcomes among refugees depending on the entry program, at least in the initial years after arriving in Canada (Beiser 2003; IRCC 2016). However, these studies did not carefully examine how the differences in labour market outcomes by program type change as refugees stay longer in Canada.

2   Previous research

A few Canadian studies have focused on the earnings and employment outcomes of refugees. Comparison with family-class immigrants is the most common benchmark for refugees' earnings. Different researchers have reached different conclusions. Some have found that refugees earned less than family-class immigrants, including Aydemir (2011) and, for male refugees, Abbott and Beach (2011). Some have concluded that refugees earned more, including Bevelander and Pendakur (2012) and, for female refugees, Abbott and Beach (2011). DeVoritz and Pivnenko (2004) found that the two groups earned about the same. However, all the studies compared

refugees as a group with family-class immigrants as a group. None focused on refugees from particular countries.

A number of studies, notably a study by Abbott and Beach (2011), found that although refugees often had lower earnings than economic- or family-class immigrants during the first few years in Canada, they consistently had the highest earnings growth over the first decade in Canada. Earnings converged considerably among the immigrant classes over the first decade or more in Canada. This result was also observed in papers by De Silva (1997), Li (2003), and Abbott and Beach (2008).

Poverty among some refugees, particularly those with poor employment outcomes, has been seen as an issue. DeVoritz and Pivnenko (2004) concluded that economic poverty was endemic and a growing problem for refugees. Whether refugees fared well in Canada ultimately depended on their employment prospects. Only 52% of the refugees in their sample aged 20 to 64 found employment. Thus, the refugee population's earnings performance was bimodal.

A paper by Bevelander and Pendakur (2012) is one of the few that examined the outcomes of refugees from different countries. The authors concluded that labour market outcomes were significantly different among refugees from the four countries that they studied. In a recent government report, Painter and Kokallaj (2017) provided a high-level statistical overview of the refugee groups from the 17 countries with the highest number of former refugees in 2011, according to the 2011 National Household Survey. They compared the demographic characteristics (i.e., average age and refugee categories) and socioeconomic outcomes of these refugee groups in terms of low income, educational level, employment and unemployment, and occupational skill level. The purpose of their report was to present a snapshot, descriptive analysis with comprehensive indicators. No attempt was made to take into account differences in length of residence in Canada among these groups or the extent to which differences in sociodemographic characteristics may account for differences in labour market outcomes among these groups.

Some other studies focused on one particular refugee group. Pendakur (2017), concentrating on immigrants—mainly refugees—from Afghanistan, concluded that refugees experienced poor labour force outcomes compared with other immigrants. Hou (2017) found that, in spite of very low levels of human capital, Vietnamese refugees to Canada registered very high employment rates and over time closed the initial earnings gap with other immigrants. He also found that their children had better education and earnings outcomes than those of other immigrants and the Canadian-born population.

Focusing on business ownership by immigrants in 2010, Green et al. (2016) found that self-employment tended to be marginally higher among refugees than among economic- and family-class immigrants and the Canadian-born population. However, ownership of a private incorporated company—the second type of business included in the study—was less likely among refugees. Picot and Ostrovsky (2017) concluded that the main difference between refugees and economic-class immigrants was not their tendency to be business owners but rather the type of company they owned. Economic-class immigrants tended to own companies in "knowledge-based" industries, whereas refugees tended to own companies in more traditional immigrant sectors such as food and accommodation, retail trade, taxis, janitorial work, and landscaping. This difference was likely related, at least in part, to differences in education background.

For the United States, relatively few studies of the earnings and employment outcomes of refugees during the first few years in the country are available, largely because of data limitations.

O'Connor (2010) found poorer employment, occupation and earnings outcomes for refugees, compared with other immigrants. This was the case for both the unadjusted (actual) and adjusted results, although the differences were minimized in the latter case. Following outcomes over a

20-year period, Evans and Fitzgerald (2017) found that refugees who entered the United States had much lower levels of education and poorer language skills than the native-born population, and they initially experienced low employment, high welfare use and low earnings. Outcomes improved considerably as refugees spent more time in the United States.

3   Data and methods

The Longitudinal Immigration Database (IMDB) is the principal data source for this research. It is a longitudinal microdata file of all immigrants (including refugees) who have landed in Canada since 1980 and have filed at least one tax return. The objective of this paper is to compare refugees from various major source countries who gained permanent resident status in Canada from 1980 to 2009. The following criteria were used to select major source countries for this study. If a country was the largest source of refugees for at least one year or if the number of refugees from that country exceeded 4,000 in total over three adjacent landing years, then the country was included in the analysis. This resulted in 13 countries as listed earlier.

For each group, the study included only refugees who became landed immigrants in the main arrival period (cohort), which is defined as all adjacent years when the number of refugees exceeded 1,000. The selected refugee cohorts encompassed from 4 to 15 entry years, depending on the source country (Table 1). The number of refugees from these source countries ranged from 9,500 to 94,800. For the purpose of studying the labour market outcomes of refugees, this study further restricted the sample to those who landed at age 20 to 49 and filed a tax return at least one year since landing. This resulted in sample sizes ranging from 6,965 to 57,185 for the selected countries.

Table 1
Number of refugees from major source countries

Country of birth and main arrival periods	Landed in main arrival period	Landed in 1980 to 2009	Number in the selected period as percent of full period	Landed at age 20 to 49 in selected period	Landed at age 20 to 49 in selected period and filed taxes at least once
	number		percent	number	
Viet Nam, Cambodia and Laos					
1980 to 1994	94,830	95,820	99.0	57,210	57,185
Poland					
1981 to 1992	66,020	67,845	97.3	52,130	52,105
Sri Lanka					
1992 to 2009	43,275	45,820	94.4	28,285	28,195
Former Yugoslavia					
1993 to 2001	40,090	41,555	96.5	24,560	24,515
Afghanistan					
1995 to 2008	28,160	36,095	78.0	14,910	14,890
Iran					
1988 to 1992; 1995 to 2004	22,005	30,805	71.4	14,325	14,280
Iraq					
1992 to 1997; 2000 to 2001; 2008 to 2009	16,685	25,860	64.5	10,535	10,515
El Salvador					
1983 to 1993	22,940	25,315	90.6	12,655	12,640
Colombia					
2001 to 2009	23,440	24,635	95.1	14,945	14,900
Ethiopia					
1988 to 1993	9,540	23,800	40.1	7,880	7,875
Somalia					
1991 to 1995; 1998 to 2000	11,725	20,815	56.3	7,010	6,965
Pakistan					
2000 to 2007	13,115	19,820	66.2	7,490	7,465
China					
2002 to 2007	10,850	18,550	58.5	7,405	7,380
Total number	**402,675**	**476,735**	**84.5**	**259,340**	**258,910**

Notes: Refugees include government-assisted refugees, privately sponsored refugees, refugees landed in Canada and refugee dependants in the statistical classification of Immigration, Refugees and Citizenship Canada. Wave periods were determined by starting from the year when the number of refugees was over 1,000 in two consecutive years and ending in the year when the number fell below 1,000 in two consecutive years. Viet Nam, Cambodia and Laos are taken together. All counts are rounded to the nearest 5.
Source: Statistics Canada, 2014 Immigrant Landing File.

With regard to earnings, the focus is on annual earnings at 1, 5, 10 and 15 years after obtaining permanent residence in Canada. The average annual earnings of refugees from a particular country were compared with the earnings of immigrants in three classes: (1) all the refugees from the 13 countries included in the study, (2) family-class immigrants entering during exactly the same years as the refugee cohort and (3) economic-class immigrants entering during the same period. Average annual earnings were produced for refugees as well as for family-class and economic-class immigrants for up to 15 years after they entered Canada. In addition, unadjusted and adjusted estimates of earnings during the first 15 years in Canada were produced for each selected refugee group. The adjusted estimates control for differences in observable characteristics and economic conditions and are based on the linear regression models described below. Two different models were run to facilitate the earnings comparison—first among refugees from the 13 different countries, and second between refugees from one of the 13 countries and either family- or economic-class immigrants entering during the same period.

For the first comparison, the sample consisted of refugees aged 20 to 49 entering from 13 countries. To prevent any single group from dominating the model estimates, weights were assigned so that each group contributed the same weighted number of observations (refugees)

to the model.[1] The dependent variable is the annual earnings level for each individual. The independent variables include

- dummy variables for refugee groups
- years since immigration
- squared years since immigration
- age at immigration
- educational levels at immigration (i.e., high school or less, some postsecondary education, bachelor's degree and graduate degree)
- official language (i.e., English or French, and others)
- refugee categories (i.e., government-assisted, privately sponsored, In-Canada Asylum Program and other refugees)
- annual unemployment rates among prime-age men at the provincial level.

Model 1 includes only the constant term, the dummies for source country, years since landing, years since landing squared and years since landing interacted with source country. This model was used to estimate unadjusted earnings.

Model 2 adds the human capital characteristics, program type and regional economic conditions to Model 1. This model was used to estimate adjusted earnings, assuming each refugee group had the same values in the control variables. The models were run separately for men and women.

For each refugee group, two different earnings gaps (differences) were estimated: the unadjusted gap, which is the difference in average unadjusted earnings between the refugees from a particular country and the refugees from all 13 countries; and the adjusted gap, which is produced in the same way but using adjusted earnings. For any particular refugee group, the difference between the adjusted and unadjusted gaps is an estimate of the extent to which the unadjusted gap in earnings is accounted for by differences in the observable characteristics included in the regression.

The second set of comparisons was between each refugee (source country) group and family-class immigrants entering during the same years as the refugee group. As well, a similar comparison was made between each refugee group and economic-class immigrants entering during the same years. The population was restricted to those aged 20 to 49 at entry. The dependent variable was annual earnings for individual i. The independent variables include

- a dummy variable for immigrant class (i.e., the focal refugee group, family-class immigrants, economic-class immigrants and other refugees)
- years since landing
- years since landing squared
- age at immigration
- educational level at immigration
- official language
- annual unemployment rates among prime-age men at the provincial level.

Model A includes the constant term and dummies for immigrant class (i.e., the focal refugee group, economic- and family-class immigrants, and other refugees), years since landing and its squared term, and the interaction between immigrant class and years since landing and the

---

1. The weights were computed so that each refugee group would be seen to have the same number of observations as the smallest group: 9,540 observations. Hence, the weight was 9,540 divided by the actual number of observations for each group. For example, for the Iranian refugees, the weight was 9,540 divided by 22,005, or 0.433.

squared term. This model was used to estimate unadjusted annual earnings for the four immigrant class groups in various years after immigration.

Model B adds in age at immigration, education, official language and regional economic conditions to Model A. This model was used to estimate adjusted annual earnings, which take into consideration differences among immigrant classes in the control variables.

The models were run separately for men and women and for each of the 13 selected refugee groups included in the analysis, for a total of 26 regressions. The sample for any particular regression consisted of all female or male immigrants (including refugees) who entered Canada during the entry years covered by the refugee group and who filed a tax return in any year in the observation period.

The gap in both unadjusted and adjusted earnings between, say, refugees entering from a particular country and family-class immigrants was calculated. The difference between the unadjusted and adjusted earnings gap is an estimate of the extent to which differences in the observable characteristics and economic conditions explain or account for the unadjusted earnings gap between the two groups.

In addition to earnings, the proportion of the refugee cohort employed (i.e., with positive earnings) is estimated for up to 10 years after entering Canada. It is simply the number of refugees who entered during year X who are employed Y years later, divided by the total number of refugees from that country who entered during year X. These results were estimated for refugees from a particular country who entered during any individual year, and the results were aggregated across all entry years included in the cohort to obtain estimates for a country's entering cohort as a whole. The results were produced separately for men and women.

4   Results

4.1   The characteristics of refugees and other immigrants

Differences between refugee groups in earnings-related observable characteristics could explain some or all of the earnings gap between various groups. In particular, differences in educational attainment and language spoken at landing can have a significant effect. The characteristics of refugees from different countries were significantly different (Table 2). Quite low levels of education were found for refugees from Viet Nam, Cambodia and Laos; Sri Lanka; Ethiopia; El Salvador; Somalia; and China. Less than 10% had a university degree. Those from the former Yugoslavia, Poland, Colombia and Pakistan registered fairly high levels: 18% to 26% had a university degree. The variation in language was similarly large. Over 70% of refugees from the following countries spoke neither English nor French at landing: the former Yugoslavia; Poland; Viet Nam, Cambodia and Laos; and El Salvador. In contrast, those from Sri Lanka, Somalia and Pakistan had very high rates of speaking English in particular: over three-quarters spoke this language at landing. Only refugees from Viet Nam, Cambodia and Laos had both low levels of education and a low proportion of English or French speakers. However, these refugees did quite well economically.

Table 2

Characteristics of refugees from major source countries who became permanent residents in Canada

	Former Yugoslavia	Poland	Colombia	Viet Nam, Cambodia and Laos	El Salvador	Sri Lanka	Iran	Ethiopia	Iraq	Somalia	Afghanistan	Pakistan	China	Overall
							percent							
Gender														
Male	52.0	61.4	48.3	59.6	55.4	61.4	60.5	60.5	61.2	48.9	50.7	60.2	51.3	57.7
Female	48.0	38.6	51.7	40.4	44.6	38.6	39.5	39.5	38.8	51.1	49.3	39.8	48.7	42.3
Age at landing														
20 to 29	35.4	45.6	34.8	66.6	48.6	44.1	44.1	75.8	45.5	59.2	43.7	35.3	30.4	49.0
30 to 39	42.9	43.5	36.2	25.5	36.8	37.4	38.7	21.0	37.1	31.6	33.4	39.6	36.9	35.6
40 to 49	21.7	10.9	29.0	7.9	14.6	18.5	17.2	3.1	17.4	9.2	23.0	25.1	32.7	15.4
Education level at landing														
Less than high school	10.7	3.5	18.4	61.2	39.9	11.5	13.2	19.5	35.1	24.6	32.3	22.4	40.9	26.6
High school	38.7	29.3	38.4	31.8	38.2	72.2	61.9	62.0	32.9	57.3	38.6	38.1	35.9	41.0
Some postsecondary education	32.4	47.3	17.4	4.9	16.3	12.2	13.8	13.1	15.5	9.3	13.5	13.2	17.1	20.5
University or above	18.1	19.9	25.8	2.0	5.6	4.1	11.1	5.4	16.5	8.7	15.6	26.2	6.1	11.9
Official language at landing														
English only	25.7	19.4	48.5	12.9	14.5	85.1	50.1	52.1	33.7	76.8	30.6	77.3	54.1	35.3
French only	2.3	1.1	3.2	2.0	2.3	0.1	1.7	1.4	0.3	2.8	0.7	0.0	0.0	1.4
English and French	1.6	0.9	1.4	1.2	0.6	0.3	1.4	1.8	0.6	1.7	5.8	0.4	0.0	1.3
Neither English nor French	70.4	78.6	46.9	83.9	82.5	14.5	46.8	44.6	65.3	18.6	62.9	22.2	45.5	62.0
Refugee category														
Government-assisted	80.1	28.7	38.2	56.4	81.6	0.4	43.0	37.6	47.1	11.5	49.4	2.0	0.9	40.7
Privately sponsored	14.7	71.0	4.0	43.6	7.5	1.0	8.7	56.6	43.1	7.9	35.8	0.3	0.0	32.3
Landed in Canada	4.8	0.2	52.6	0.0	10.5	86.5	44.0	5.7	9.2	79.4	12.9	74.9	68.3	23.4
Dependants	0.4	0.2	5.3	0.0	0.4	12.1	4.3	0.0	0.6	1.2	1.8	22.8	30.6	3.6

Source: Statistics Canada, Longitudinal Immigration Database.

In general, the educational attainment of refugees is lower than that of family-class immigrants, and, particularly, than that of economic-class immigrants. This would tend to result in lower earnings among refugees than among the other groups. About 12% of the refugees from the 13 countries (combined) held a university degree upon entry to Canada, compared with 25% of family-class immigrants who entered Canada during the same years as the selected refugee groups and 51% of economic-class immigrants (table not shown). In addition, about 32% of the refugees had some form of postsecondary education, compared with 43% of family-class immigrants and 72% of economic-class immigrants.

The difference in the ability to speak English or French at entry between refugees and family- and economic-class immigrants was large. A much smaller share of refugees (38%) spoke English or French than did family-class (61%) or economic-class (78%) immigrants who entered during the same years.

4.2   The employment rate

The employment rate for a refugee group is defined as the number of refugees with positive earnings in any given year after entering Canada, divided by the number of refugees who arrived in that particular refugee cohort. For example, the employment rate among Polish refugees one year after entering Canada is the number from that country with positive earnings one year after entry divided by the size of the Polish entering cohort. An individual who is either employed as a paid worker or self-employed at any time during the year is included in the rate. With some exceptions, the employment rate for refugees from most countries increased with the number of years spent in Canada (Table 3). Five years after entering Canada, male refugees from most regions has a fairly high employment rate: the employment rate was 75% or higher for refugees from 7 of the 13 countries. Male refugees from Iran (at 56%) and Somalia (at 44%) were at the lower end.

The employment rate was lower among female refugees. Refugee women from four countries had employment rates at or over 65% five years after becoming permanent residents in Canada. Female refugees from five different countries had employment rates around 46% to 56%. Those from Iraq, Afghanistan, Pakistan and Somalia had the lowest employment rates five years after entering Canada. Only about one in five Somali women were working at any time during the year five years after entering Canada.

Table 3
Percentage of refugees with earnings, by years since landing, gender and major source country

Source country and gender	Years since landing		
	1	5	10
	percent		
Former Yugoslavia			
Male	56.7	80.4	77.7
Female	38.9	72.1	73.2
Poland			
Male	84.0	75.0	73.5
Female	69.8	64.5	68.3
Colombia			
Male	64.1	76.5	70.1
Female	45.1	65.8	67.9
Viet Nam, Cambodia and Laos			
Male	58.8	75.2	71.7
Female	43.9	55.7	53.8
El Salvador			
Male	68.4	71.1	68.5
Female	47.1	51.4	57.2
Sri Lanka			
Male	76.9	80.8	79.7
Female	36.5	53.6	58.5
Iran			
Male	47.6	55.9	58.8
Female	28.6	47.5	54.3
Ethiopia			
Male	69.2	62.5	61.8
Female	51.4	46.5	52.8
Iraq			
Male	58.6	64.6	58.8
Female	30.0	37.9	38.3
Somalia			
Male	45.2	44.0	41.5
Female	18.2	21.4	30.3
Afghanistan			
Male	57.1	67.0	67.1
Female	27.2	39.1	42.8
Pakistan			
Male	71.6	74.7	74.4
Female	31.4	37.9	35.4
China			
Male	76.8	81.6	80.8
Female	66.3	73.0	74.3

Source: Statistics Canada, Longitudinal Immigration Database.

The same general pattern of employment rates for both men and women was observed 10 years after entering Canada (Table 3).

Depending on their culture and financial needs, women in refugee groups with high male employment rates may choose not to work. Conversely, employment rates among women may be higher in groups where men are unable to find employment. That was not the case. The refugee groups with high employment rates among men tended to have high rates among women. Conversely, those with low male employment rates tended to have low female employment rates (Table 3). Across the 13 groups, the correlation coefficient between the employment rates of men and women five years after entering Canada was 0.8.[2] To the extent that men and women marry

---

2. This refers to the Pearson correlation coefficient, which indicates the strength of the linear relationship between two variables. In this case, the two variables are the employment rates of men and women within the 13 refugee groups. The coefficient can vary from -1 to +1. A value of 0.8 indicates a strong positive relationship between the two variables.

within refugee groups, this high degree of correlation between the employment rates of men and women would exacerbate lower-income rates and economic inequality between refugee groups.

The group variation was larger in the female employment rates than in the male employment rates. Five years after entering Canada, men in the group with the highest employment rate (from the former Yugoslavia) saw a rate 1.8 times that of the group with the lowest rate (from Somalia). Among women, the rate between these same two groups varied by a factor of 3.4. The male employment rate had an average across the 13 groups of 70% (unweighted) and a standard deviation of 10; women had an average of 51% with a standard deviation of 15. This large variation in employment rates among female refugees from different countries is an important part of the overall variation in the economic outcomes of refugee families.

4.3   Earnings

4.3.1   Earnings differences among refugees from the 13 source countries

The unadjusted (i.e., raw) earnings data provide a number of interesting observations.

First, just as with the employment rate, the variation in earnings among the 13 refugee groups was tremendous. Ten years after entering Canada, employed male refugees had average annual earnings ranging from around $45,000 among the top three groups (i.e., from the former Yugoslavia, Poland and Colombia) to under $28,500 among the bottom four source-country groups (i.e., from Somalia, Afghanistan, Pakistan and China). The groups are ranked by the average earnings of male refugees 15 years after entering Canada in Table 4. Refugees in the top three earnings groups had average earnings 1.9 times those of their counterparts in the lowest three earnings groups (Table 4). Earnings were lower among female refugees. Five years after entry, female refugees had average earnings of $19,100, compared with $27,000 for males across all 13 groups. However, the variation was similar.

Table 4

Average earnings of refugees, family-class immigrants and economic-class immigrants aged 20 to 49 at landing, by years since landing, major source country and gender

	Refugees					Family-class immigrants[1]					Economic-class immigrants[2]				
	Years since landing				Ratio (15th	Years since landing				Ratio (15th	Years since landing				Ratio (15th
Source country and gender	1	5	10	15	to 1st year)	1	5	10	15	to 1st year)	1	5	10	15	to 1st year)
	thousands of dollars														
Former Yugoslavia															
Male	19.26	37.50	45.81	52.96	2.75	25.19	36.12	42.82	46.27	1.84	35.32	50.41	60.42	65.36	1.85
Female	11.49	24.74	33.34	40.42	3.52	16.60	23.14	28.82	33.11	1.99	20.79	30.81	39.48	43.55	2.09
Poland															
Male	24.28	36.68	46.44	52.78	2.17	25.40	35.01	43.35	49.83	1.96	40.32	48.11	57.84	65.90	1.63
Female	13.86	23.80	32.37	38.37	2.77	17.40	23.26	29.19	34.18	1.96	22.25	28.81	35.06	39.79	1.79
Colombia[3]															
Male	23.10	33.62	44.69	51.41	2.23	28.68	39.39	45.98	48.73	1.70	35.41	51.34	62.61	67.81	1.91
Female	15.47	22.77	30.27	36.49	2.36	17.89	24.58	30.28	32.69	1.83	22.66	33.23	42.38	46.12	2.04
Viet Nam, Cambodia and Laos															
Male	18.77	28.64	35.25	38.83	2.07	24.66	34.98	43.08	48.84	1.98	39.18	48.86	58.14	65.65	1.68
Female	14.14	20.86	24.36	26.53	1.88	16.98	23.06	28.78	33.71	1.99	21.74	28.64	34.96	39.92	1.84
El Salvador															
Male	16.04	25.38	32.04	38.15	2.38	24.73	34.47	42.87	49.29	1.99	38.14	46.69	56.92	65.33	1.71
Female	10.49	17.31	22.70	26.82	2.56	17.07	23.14	28.96	34.03	1.99	21.94	28.86	35.24	40.31	1.84
Sri Lanka															
Male	26.48	31.44	34.97	38.06	1.44	26.56	37.47	43.60	46.62	1.76	35.62	50.97	61.17	65.31	1.83
Female	14.78	18.53	21.86	25.08	1.70	17.20	23.85	29.23	33.22	1.93	21.94	32.05	40.08	43.20	1.97
Iran															
Male	15.70	22.75	31.54	36.12	2.30	25.80	35.92	43.85	47.39	1.84	34.80	49.46	60.74	64.79	1.86
Female	11.35	18.98	26.12	31.18	2.75	17.06	23.56	29.56	33.68	1.97	21.29	31.27	39.92	42.81	2.01
Ethiopia															
Male	17.30	22.11	29.59	33.38	1.93	23.48	32.80	42.38	47.69	2.03	35.93	44.67	56.35	63.86	1.78
Female	12.16	17.16	22.43	27.47	2.26	16.79	22.66	28.80	33.61	2.00	22.03	28.54	35.60	40.59	1.84
Iraq															
Male	17.82	26.78	30.27	31.83	1.79	24.92	36.55	42.55	46.19	1.85	35.49	50.82	59.81	64.34	1.81
Female	12.43	17.79	23.36	25.48	2.05	16.61	23.34	28.57	32.94	1.98	21.86	31.32	38.56	41.83	1.91
Somalia															
Male	15.67	20.16	27.05	31.06	1.98	23.75	34.61	42.22	46.67	1.97	36.14	49.65	60.05	65.90	1.82
Female	12.55	16.46	20.59	23.56	1.88	16.35	22.82	28.70	33.35	2.04	21.14	29.89	38.39	42.93	2.03
Afghanistan															
Male	16.94	23.38	28.46	29.11	1.72	27.84	38.29	44.50	46.82	1.68	35.54	51.11	61.86	65.64	1.85
Female	11.00	16.77	20.79	23.33	2.12	17.57	24.14	29.73	33.49	1.91	21.91	32.47	41.20	44.49	2.03
Pakistan[3]															
Male	19.45	22.43	23.99	28.11	1.45	28.87	38.89	45.34	47.40	1.64	34.87	50.61	62.52	68.74	1.97
Female	12.59	16.27	17.97	20.02	1.59	17.86	24.41	30.24	33.82	1.89	21.82	32.83	42.44	47.47	2.18
China[3]															
Male	17.08	20.41	22.02	22.76	1.33	28.93	39.18	46.50	46.74	1.62	34.90	51.12	63.54	65.91	1.89
Female	15.32	17.71	19.43	19.75	1.29	17.91	24.69	30.49	31.63	1.77	21.98	33.19	42.51	44.93	2.04

1. Family-class immigrants from all countries landed during the same years as the refugees from the specific country.

2. Economic-class immigrants from all countries landed during the same years as the refugees from the specific country.

3. The maximum number of years of data available since the landing year of the group is less than 15, since the latest data available are for 2014. Average earnings in the last available year of data since landing (the 13th for Colombia, the 14th for Pakistan and the 12th for China) are shown in the column for the 15th year. Growth rates for these groups are calculated for growth between the first year and the last year for which data are available (instead of the 15th year).

Source: Statistics Canada, Longitudinal Immigration Database.

Second, refugee groups that displayed high employment rates also tended to have higher earnings, and groups with low employment rates tended to have lower earnings. Male refugees from Somalia, Iran and Ethiopia had both low unemployment rates and low earnings among the employed, as did female refugees from Pakistan, Afghanistan, Iraq and Somalia (Chart 2). The one major exception was refugees from China; they had very low average earnings five years after entering Canada but the highest employment rate. They had a very high propensity to work but mainly in low paying jobs. Excluding Chinese refugees, the correlation between the employment rate and average earnings five years after entry across the 12 groups was 0.73 for men and 0.88 for women. These high correlations may be because the differences among refugees in human capital characteristics affect both the ability to find a job and the earnings in those jobs. However, as will be seen later, the difference among groups in human capital characteristics explained relatively little of the variation in earnings outcomes.

Chart 2
Employment rates and average earnings five years after landing among refugees from major source countries, by gender and age at landing

(A) Men aged 20 to 49 at landing

(B) Women aged 20 to 49 at landing
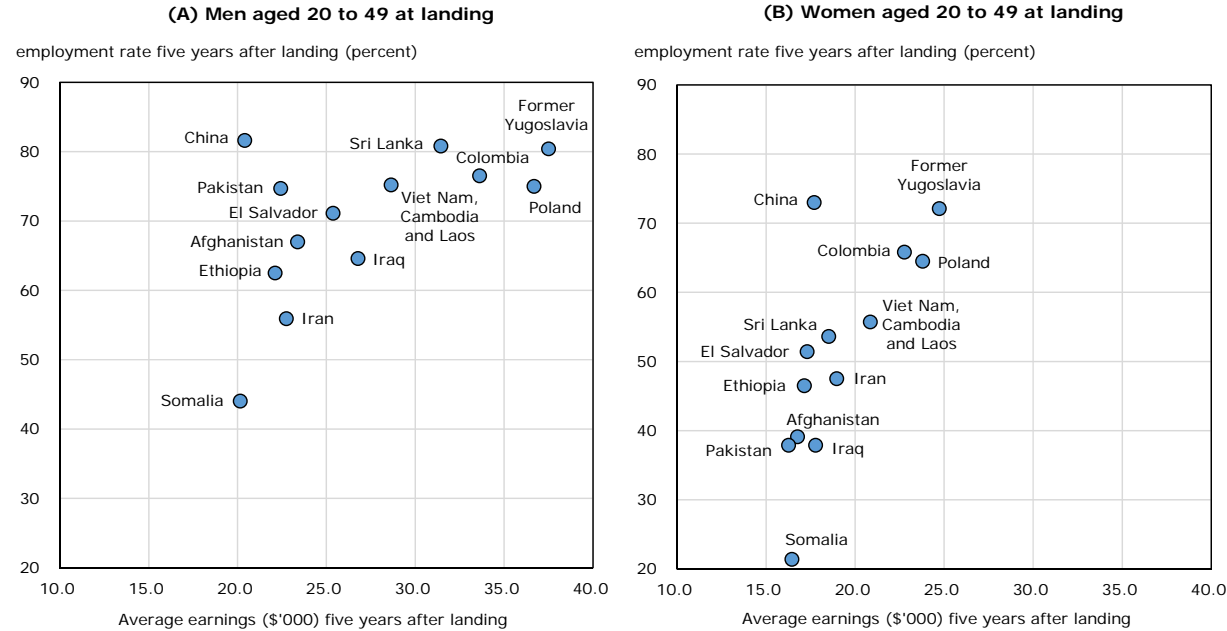
Note: Viet Nam, Cambodia and Laos as a group.
Source: Statistics Canada, Longitudinal Immigration Database, 1980 to 2009.

A straightforward way to assess the effect of these high correlations on group differences is to determine the employment earnings per person for each refugee group rather than the employment earnings per employed individual. The average earnings per person aged 20 to 64 are simply the employment rate times the average earnings. Given the average earnings per adult, male refugees from the top three countries—the former Yugoslavia, Poland and Colombia—had access to 2.3 times the economic resources from employment compared with those in the bottom three regions—Somalia, Afghanistan and Iran. Among women, this difference was three times greater.[3] Notably, Somali refugees had access to extremely low levels of employment earnings, at $8,800 per adult man and $3,500 per adult woman 5 years after entering Canada, and $11,000 per man and $6,100 per woman 10 years after entering.

Third, just as with the employment rate, the earnings of male and female refugees from the same countries were highly correlated. The groups with low earnings among the men tended to have

---

3. The three groups with the highest earnings had average employment earnings per adult man of $25,000 to $30,000 5 years after entering Canada; those with the lowest earnings per person had earnings of $8,000 to $15,000. For women, the ranges were $15,000 to $18,000 for the top-earning groups and $3,000 to $6,000 for the bottom-earning groups.

low earnings among the women. The correlation coefficient between men's and women's average earnings across the 13 groups was over 0.9 both 5 and 10 years after entry. There is little evidence that the earnings of women in any way offset the low earnings of men. This high correlation would tend to exacerbate poverty among refugee groups with low earnings. The same pattern was observed earlier with employment rates. The high correlation across groups between the economic outcomes of men and women would tend to concentrate high levels of employment and earnings in some groups and accentuate low levels in other groups.

Fourth, as is the case with virtually all immigrants, the annual earnings of employed refugees increase significantly with the number of years spent in Canada (Chart 3). The average earnings of employed refugees from some countries grew at a high rate. Male refugees from 6 of the 13 countries (i.e., the former Yugoslavia; Poland; Colombia; Viet Nam, Cambodia and Laos; El Salvador; and Iran) saw their earnings more than double during the first 15 years in Canada (Table 4). This rapid growth in annual earnings was not observed among family-class and economic-class male immigrants who arrived over the same period as the refugee groups; none saw their earnings more than double over the first 15 years in Canada. A similar story held for female refugees; those from 8 of the 13 countries saw their earnings more than double over the first 15 years, again something not observed among female family-class immigrants. This result was observed in earlier studies such as that by Abbott and Beach (2011). Of course, refugees from some countries did not see their earnings grow as fast as family- and economic-class immigrants entering at the same time. This was particularly true for refugees, both male and female, from Sri Lanka, Pakistan and China (Table 4).

Chart 3
Average earnings of refugees from selected major source countries, by gender, age and years since landing

(A) Men aged 20 to 49 at landing

(B) Women aged 20 to 49 at landing
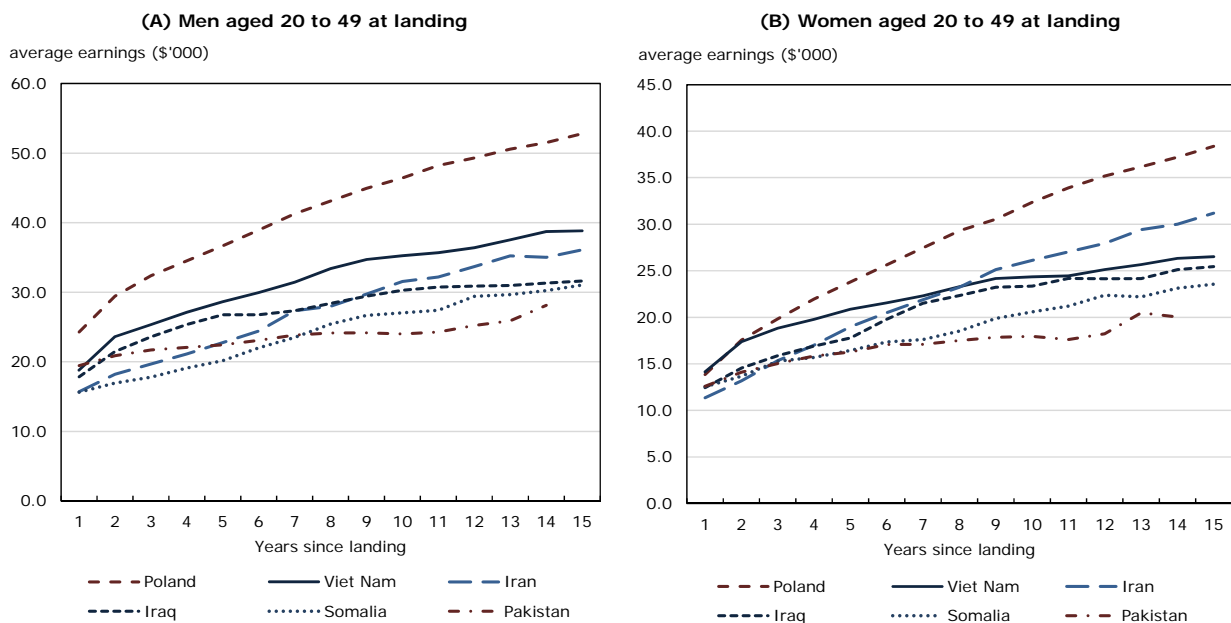
Note: Viet Nam also includes Cambodia and Laos (as a group). The last year of data available since the landing year is the 14th year for Pakistan.
Source: Statistics Canada, Longitudinal Immigration Database, 1980 to 2009.

4.3.2   Why the large difference in earnings among refugees from the 13 source countries?

This study first shows how much the unadjusted average earnings of refugees from a particular country differ from the unadjusted average earnings of all refugees from the 13 countries. This gap varied substantially. Male refugees from Poland earned $13,200 more than the average for all refugees 10 years after entry, while those from China earned $11,300 less than the average (Table 5). The gap for female refugees varied from $9,600 more than the average to $6,200 less

than the average. The most obvious reason for these earnings gaps is a difference in human capital characteristics. To determine the extent to which these differences "explain" the difference in earnings between a refugee group and the overall average, adjusted earnings were estimated using regression Model 2 described in the "Data and methods" section. The model takes into account

- individual characteristics (i.e., age, educational attainment at entry and language skills at entry)
- local economic conditions (as measured by unemployment rates)
- the refugee program under which the person entered Canada.

The difference between the unadjusted earnings gap of a refugee group relative to the overall average (based on Model 1) and the adjusted gap (based on predicted earnings from Model 2) indicates the extent to which the variables mentioned above explain the actual earnings gap (Table 5).

Table 5

Earnings, earnings gaps[1] and percentage of gaps explained, by major source country, gender and years since landing, for refugees aged 20 to 49 at landing

	Unadjusted earnings[2]						Adjusted earnings[3]						Percentage of gap explained[4]		
	Average predicted			Gap to be explained			Average predicted			Gap remaining					
	Years since landing			Years since landing			Years since landing			Years since landing			Years since landing		
Source country and gender	1	5	10	1	5	10	1	5	10	1	5	10	1	5	10
	dollars												percent		
Former Yugoslavia															
Male	22,400	36,200	46,900	2,500	9,200	13,600	24,000	36,400	46,200	3,700	9,300	13,100	none	none	3.7
Female	12,900	24,100	34,000	-500	5,000	9,600	14,100	24,500	33,500	700	5,400	9,000	240.0	none	6.3
Poland															
Male	25,600	36,700	46,600	5,700	9,700	13,200	27,000	37,100	45,500	6,700	10,000	12,400	none	none	6.1
Female	14,700	23,700	32,400	1,300	4,600	7,900	15,200	24,000	31,700	1,800	4,900	7,200	none	none	8.9
Colombia[5]															
Male	23,400	33,700	44,900	3,500	6,700	11,500	22,200	33,100	44,400	1,900	6,000	11,300	45.7	10.4	1.7
Female	15,600	23,000	30,700	2,200	3,900	6,300	14,100	21,500	29,400	700	2,400	4,900	68.2	38.5	22.2
Viet Nam, Cambodia and Laos															
Male	20,200	28,600	35,500	300	1,600	2,100	23,200	31,800	38,900	2,900	4,700	5,800	none	none	none
Female	15,400	20,600	24,700	2,000	1,400	200	17,600	23,800	28,700	4,200	4,700	4,200	none	none	none
El Salvador															
Male	17,600	24,900	32,300	-2,300	-2,100	-1,000	21,300	28,800	35,700	900	1,700	2,600	139.1	181.0	360.0
Female	11,500	17,100	22,700	-1,900	-2,000	-1,800	14,100	20,000	25,600	700	900	1,100	136.8	145.0	161.1
Sri Lanka															
Male	27,000	31,200	35,200	7,100	4,200	1,800	25,400	29,900	34,600	5,100	2,800	1,500	28.2	33.3	16.7
Female	15,000	18,500	22,100	1,600	-700	-2,400	13,400	16,700	20,800	0	-2,400	-3,700	100.0	none	none
Iran															
Male	15,800	23,100	30,600	-4,100	-3,900	-2,700	16,400	23,400	30,400	-3,900	-3,700	-2,600	4.9	5.1	3.7
Female	11,300	18,800	26,000	-2,100	-300	1,600	10,900	18,200	25,400	-2,500	-1,000	800	none	none	50.0
Ethiopia															
Male	17,200	23,000	29,000	-2,700	-4,000	-4,300	20,000	23,200	26,600	-300	-3,900	-6,500	88.9	2.5	none
Female	12,800	17,100	22,300	-600	-2,000	-2,200	14,200	18,100	22,800	800	-1,000	-1,700	233.3	50.0	22.7
Iraq															
Male	19,300	25,700	30,200	-600	-1,300	-3,100	20,000	25,000	29,100	-300	-2,100	-4,000	50.0	none	none
Female	12,400	18,700	23,600	-1,000	-500	-900	12,300	18,600	23,500	-1,100	-500	-1,000	none	0.0	none
Somalia															
Male	15,100	21,000	26,900	-4,800	-6,000	-6,500	15,400	19,200	24,200	-5,000	-7,900	-8,800	none	none	none
Female	12,800	16,400	20,400	-600	-2,700	-4,100	11,100	14,800	19,400	-2,300	-4,300	-5,100	none	none	none
Afghanistan															
Male	17,400	23,500	28,200	-2,400	-3,400	-5,200	16,900	23,000	27,400	-3,500	-4,100	-5,600	none	none	none
Female	11,600	16,700	21,100	-1,800	-2,400	-3,300	11,800	17,200	21,300	-1,600	-2,000	-3,200	11.1	16.7	3.0
Pakistan[5]															
Male	20,100	22,500	24,700	200	-4,500	-8,700	16,600	19,800	22,000	-3,800	-7,300	-11,100	2,000.0	none	none
Female	13,200	16,200	18,200	-200	-3,000	-6,200	11,000	13,200	15,100	-2,400	-5,900	-9,400	none	none	none
China[5]															
Male	17,400	20,300	22,000	-2,400	-6,700	-11,300	15,500	20,900	24,300	-4,900	-6,200	-8,800	none	7.5	22.1
Female	15,400	17,800	19,500	2,000	-1,300	-5,000	14,600	17,800	20,800	1,200	-1,400	-3,700	40.0	none	26.0
Overall															
Male	19,900	27,000	33,400	…	…	…	20,300	27,100	33,100	…	…	…	…	…	…
Female	13,400	19,100	24,500	…	…	…	13,400	19,200	24,500	…	…	…	…	…	…

… not applicable

1. The earnings gap between the average earnings of refugees from a specific country and the average earnings of refugees from all major source countries.

2. From Model 1, which includes source country, years since landing, years since landing squared, and the interaction between the country and years since landing variables.

3. From Model 2, which includes the variables in Model 1 and all the other explanatory variables (see "Data and methods" section).

4. Is equal to the difference between the unadjusted gap and the adjusted gap divided by the unadjusted gap.

5. The maximum number of years of data available since the landing year of the group is less than 15, since the latest data available are for 2014. Average earnings in the last available year of data since landing (the 13th for Colombia, the 14th for Pakistan and the 12th for China) are shown in the column for the 15th year. Growth rates for these groups are calculated for growth between the first year and the last year for which data are available (instead of the 15th year).

Source: Statistics Canada, Longitudinal Immigration Database.

The main finding is that in most cases, human capital characteristics, economic conditions and program of entry explain relatively little or none of the variation in earnings among refugees from different countries. Furthermore, both the size of the earnings gaps and the percentage that was accounted for in the regressions varied with years since landing. The variation in earnings among refugees from the 13 countries (measured by the earnings gaps between each refugee group and the mean value for all groups) increased[4] as refugees spent more time in Canada. And the percentage of this variation that was accounted for by the variables mentioned above declined between the year 1 and year 10 results. The average share (across the 13 groups) of the earnings gap that was accounted for fell from 30.7% in year 1 to 4.5% in year 10 for men[5] and from 38.4% to 25.0% for women. This is not too surprising. The human capital variables included in the regression refer to differences that refugees bring to Canada, but post-arrival experiences, including differences in Canadian work experience, the acquisition of language skills and support from ethnic communities, could affect the size of the earnings gaps. These post-landing experiences are not captured in the model.

The model results were particularly interesting for refugee groups with earnings well below the average. For these refugee groups, including those from Ethiopia, Iraq, Somalia, Afghanistan and Pakistan, the human capital, economic conditions and program of entry variables included in the model accounted for virtually none of the earnings gap. The result for refugees from China was an exception; about 20% of the earnings gap in year 10 was explained by the independent variables in the model. In all the other cases, the refugees' low earnings were not related to a deficiency (relative to the average) in observable characteristics.[6] This held true for both men and women and for virtually all years since entry up to year 15 (Table 5).[7] Other unknown and unobserved factors accounted for the low earnings.

In general, one has to look beyond educational attainment, language skills, economic conditions and the program under which they enter for an explanation as to why refugees from some countries earn more than those from other countries. Other possible reasons for the earnings gap are discussed in the conclusion.

4.3.3 Refugees' earnings compared with those of family-class immigrants

During the first full year in Canada, refugees from all 13 countries had annual earnings below those of family-class immigrants entering during the same period. The refugee–family-class unadjusted earnings gaps were all negative (Table 6). This was true for both men and women. However, earnings for refugees from many countries displayed a higher growth rate than those of family-class or economic-class immigrants. The end result was that after 15 years in Canada, refugees from the former Yugoslavia, Poland and Colombia had earnings higher than their family-class counterparts entering during the same period; their unadjusted earnings gaps were positive. Although refugees from some other countries saw their earnings grow quite quickly, their earnings remained below those of family-class immigrants. As was the case 1 year after entry, refugees from countries such as China, Pakistan, Afghanistan, Somalia, Iraq and Ethiopia experienced large negative unadjusted gaps ranging from $6,000 to $23,000 compared with family-class immigrants, even after 15 years in Canada.

---

4. The average of the absolute value of the earnings gaps across the 13 groups increased from $2,900 to $6,500 for men from 1 year to 10 years after landing, and from $1,400 to $4,000 for women.
5. Groups with earnings gaps of $1,000 or less were excluded from this calculation, since the decomposition results for small earnings gaps can be unreliable.
6. In fact, in most cases, if the refugees from these countries had had the characteristics of the average refugee population, they would have had lower earnings than they did, not higher.
7. There were a few minor exceptions (e.g., female refugees from Ethiopia).

Table 6

Unadjusted and adjusted earnings gaps between refugees and family-class immigrants aged 20 to 49 at landing, by major source country, gender and years since landing

Source country and gender	1 year since landing			5 years since landing			10 years since landing			15 years since landing		
	Earnings gap		Percentage explained	Earnings gap		Percentage explained	Earnings gap		Percentage explained	Earnings gap		Percentage explained
	Unadjusted[1]	Adjusted[2]	explained	Unadjusted[1]	Adjusted[2]	explained	Unadjusted[1]	Adjusted[2]	explained	Unadjusted[1]	Adjusted[2]	explained
	thousands of dollars		percent	thousands of dollars		percent	thousands of dollars		percent	thousands of dollars		percent
Former Yugoslavia												
Male	-2.8	-0.1	98.0	0.9	4.2	none	4.0	7.6	none	5.2	8.9	none
Female	-3.8	-1.8	53.6	1.1	3.3	none	5.0	7.3	none	6.5	8.7	none
Poland												
Male	-0.4	1.3	403.8	1.9	3.5	none	3.6	5.1	none	3.7	5.5	none
Female	-3.2	-2.3	27.5	0.4	1.2	none	3.3	4.0	none	4.3	5.3	none
Colombia[3]												
Male	-5.5	-3.0	45.9	-5.0	-1.6	68.0	0.2	2.7	none	5.7	6.7	none
Female	-2.5	-1.1	55.8	-1.5	0.7	150.5	0.6	2.5	none	2.3	3.3	none
Viet Nam, Cambodia and Laos												
Male	-4.8	3.1	163.4	-6.1	2.4	139.9	-7.5	1.4	118.5	-8.9	0.1	101.3
Female	-1.9	4.4	336.4	-2.4	4.1	268.3	-4.2	2.5	160.6	-7.1	-0.2	97.5
El Salvador												
Male	-7.7	-1.9	74.9	-9.3	-2.7	70.8	-10.2	-3.3	68.0	-9.9	-3.4	66.2
Female	-6.0	-1.4	77.0	-6.0	-1.1	81.8	-6.3	-1.3	79.7	-7.0	-2.1	70.0
Sri Lanka												
Male	-0.2	1.2	612.3	-5.3	-4.3	19.3	-8.2	-7.5	8.1	-7.3	-6.8	7.5
Female	-2.6	-0.6	76.0	-5.2	-3.3	35.1	-7.2	-6.0	16.3	-7.9	-7.8	0.7
Iran												
Male	-10.5	-8.9	16.0	-12.3	-9.9	20.1	-12.2	-9.7	20.9	-9.5	-7.8	17.3
Female	-6.1	-5.1	16.9	-4.7	-3.0	36.7	-3.3	-1.4	57.6	-2.6	-1.1	55.6
Ethiopia												
Male	-6.2	-5.5	10.8	-10.0	-9.2	7.7	-12.6	-11.8	6.7	-12.9	-12.1	6.6
Female	-4.2	-1.8	57.3	-5.6	-3.3	42.4	-6.4	-3.8	40.0	-6.1	-3.1	49.1
Iraq												
Male	-6.4	-3.0	52.7	-9.5	-6.6	30.9	-12.3	-9.4	23.2	-13.9	-10.6	23.8
Female	-4.6	-2.6	44.7	-4.4	-2.5	44.2	-5.3	-3.3	38.7	-7.5	-5.0	32.6
Somalia												
Male	-9.1	-9.8	none	-13.2	-14.5	none	-15.2	-16.8	none	-13.9	-15.2	none
Female	-4.0	-4.5	none	-6.3	-6.2	1.6	-8.2	-7.7	6.1	-9.2	-8.7	5.6
Afghanistan												
Male	-10.9	-7.4	32.2	-14.0	-10.2	27.1	-15.6	-12.2	21.9	-14.9	-12.6	15.1
Female	-6.4	-2.5	60.9	-7.2	-3.4	53.2	-8.4	-5.2	38.6	-9.8	-7.7	21.1
Pakistan[3]												
Male	-9.1	-11.0	none	-15.7	-17.3	none	-19.7	-22.8	none	-19.6	-25.2	none
Female	-5.1	-4.9	3.0	-8.1	-7.9	2.9	-11.8	-12.0	none	-14.7	-15.6	none
China[3]												
Male	-11.8	-7.6	35.2	-18.4	-12.8	30.5	-22.8	-17.7	22.6	-23.4	-19.1	18.2
Female	-2.8	1.2	143.9	-6.7	-2.1	68.7	-10.6	-6.2	41.3	-11.9	-7.9	33.7

1. With controls for source country, years since landing, years since landing squared, and the interaction between the country and years since landing variables (Model 1).

2. With the controls in Model 1 and all the other explanatory variables (see "Data and methods" section).

3. The maximum number of years of data available since the landing year of the group is less than 15, since the latest data available are for 2014. Average earnings in the last available year of data since landing (the 13th for Colombia, the 14th for Pakistan and the 12th for China) are shown in the column for the 15th year. Growth rates for these groups are calculated for growth between the first year and the last year for which data are available (instead of the 15th year).

Source: Statistics Canada, Longitudinal Immigration Database.

To determine whether differences in educational attainment, ability in the official languages, age and economic conditions explain the earnings gap between refugees and family-class immigrants, the study turns to the regression technique described in the "Data and methods" section.[8]

The results are reported for years 1, 5, 10 and 15 in Table 6. The discussion of the results focuses on the earnings gaps five years after entering Canada and begins with male refugees. For the higher earnings groups (including from the former Yugoslavia; Poland; Colombia; El Salvador; and Viet Nam, Cambodia and Laos), there was either no negative gap with family-class immigrants or the explanatory variables accounted for all of the small earnings gap between the refugees and the family-class immigrants. For the remaining groups, the explanatory variables accounted for a small share of the sometimes very large negative earnings gaps between the refugees and the family-class immigrants entering during the same period. This was particularly true for lower-earning groups from countries such as Iran, Ethiopia, Iraq, Somalia, Afghanistan, Pakistan and China. These refugee groups earned from $10,000 to $18,000 less than family-class immigrants did, and 0% (Pakistan and Somalia) to 31% of the gap was accounted for by the explanatory variables.

For female refugees five years after landing, the explanatory variables generally accounted for a larger share of the refugee–family-class earnings gap than was the case for male refugees, particularly for groups with lower earnings. For example, for refugees from China and Afghanistan, the explanatory variables accounted for over half of the earnings gap, something not seen for male refugees in the lower earnings groups. Otherwise, the results resembled those of the male refugees.

In summary, for the male refugee groups with lower earnings (from Iran, Ethiopia, Iraq, Somalia, Afghanistan, Pakistan and China) and hence larger earnings gaps with family-class immigrants, differences in the observable characteristics (i.e., education, language and age) and economic conditions between them and family-class immigrants accounted for relatively little of these gaps. In general, the explanatory variables were more successful in explaining the gap for female refugees, but, in most cases, they still explained less than half of the earnings gap. Refugees from these countries were earning less than family-class immigrants for other reasons. For two groups (from Somalia and Pakistan), virtually none of the gap was explained by the differences in human capital characteristics. This was true for men and women and in all years since landing. For refugee groups with higher earnings (including from the former Yugoslavia; Poland; Colombia; and Viet Nam, Cambodia and Laos), there was either no earnings gap or the earnings gap was entirely explained by differences in human capital characteristics. This was true for both men and women.

4.3.4 The earnings gap between refugees and economic-class immigrants

The earnings of economic-class immigrants were, on average, higher than those of family-class immigrants. Hence, the earnings gap between refugees and economic-class immigrants tended to be larger. Refugees (both men and women) in groups with relatively higher average earnings, such as from the former Yugoslavia, Poland and Colombia, earned from 55% to 66% of what economic-class immigrants did during the first full year in Canada. These percentages increased to from 75% to 96% 15 years later (Table 7). These employed refugees were doing fairly well after 15 years in Canada, and even 5 years after entry they were earning 70% to 80% of what economic-class immigrants did. Five years after entry, from 47% to 100% of the relatively small gap was associated with differences in observable characteristics or economic conditions between refugees and economic-class immigrants (Table 7). In other words, the majority of the gap is explained by differences in these characteristics.

---

8. Here, the unadjusted earnings are the expected values produced by the regression model with only constant terms in the immigrant class dummy variables. The adjusted earnings are the expected values from the regression when all other control variables are added. See the "Data and methods" section.

Table 7

Unadjusted and adjusted earnings gaps between refugees and economic-class immigrants aged 20 to 49 at landing, by major source country, gender and years since landing

Source country and gender	1 year since landing			5 years since landing			10 years since landing			15 years since landing		
	Earnings gap		Percentage explained	Earnings gap		Percentage explained	Earnings gap		Percentage explained	Earnings gap		Percentage explained
	Unadjusted[1]	Adjusted[2]		Unadjusted[1]	Adjusted[2]		Unadjusted[1]	Adjusted[2]		Unadjusted[1]	Adjusted[2]	
	thousands of dollars		percent	thousands of dollars		percent	thousands of dollars		percent	thousands of dollars		percent
Former Yugoslavia												
Male	-12.1	-0.2	98.6	-12.4	-0.8	93.3	-12.5	-1.3	89.4	-12.4	-1.5	88.1
Female	-7.6	-0.3	96.0	-6.7	0.5	106.8	-5.6	1.4	124.4	-4.4	2.2	149.5
Poland												
Male	-14.1	-8.3	41.0	-10.9	-5.8	46.9	-8.9	-4.2	53.2	-9.4	-4.4	53.2
Female	-8.1	-5.0	37.8	-5.1	-2.3	54.1	-2.5	0.2	106.5	-1.3	1.7	226.6
Colombia[3]												
Male	-11.1	-3.0	72.7	-16.1	-7.2	55.4	-16.4	-7.5	54.1	-13.3	8.6	165.0
Female	-7.2	-2.0	71.4	-10.0	-4.2	58.3	-11.4	-5.8	49.1	-11.0	-6.2	43.7
Viet Nam, Cambodia and Laos												
Male	-18.5	-6.1	67.1	-19.4	-6.9	64.6	-20.8	-8.2	60.7	-22.6	-9.8	56.4
Female	-6.6	2.2	133.7	-8.0	0.8	110.5	-10.3	-1.4	86.8	-13.3	-4.1	69.0
El Salvador												
Male	-19.9	-10.1	49.2	-21.0	-11.0	47.6	-22.0	-11.9	45.9	-22.7	-12.6	44.5
Female	-10.9	-3.8	65.3	-11.7	-4.4	62.1	-12.5	-5.2	58.4	-13.2	-6.0	54.8
Sri Lanka												
Male	-8.1	1.2	114.3	-18.1	-9.7	46.0	-24.5	-16.9	31.1	-24.4	-16.9	30.7
Female	-7.0	-0.5	92.6	-13.4	-7.2	46.3	-17.8	-12.4	30.6	-18.3	-14.0	23.3
Iran												
Male	-18.6	-9.0	51.4	-25.0	-15.3	38.9	-28.0	-18.9	32.5	-25.2	-17.8	29.6
Female	-10.0	-4.7	53.6	-12.5	-6.5	47.7	-13.5	-7.5	44.6	-12.0	-6.8	43.6
Ethiopia												
Male	-17.7	-13.0	26.2	-21.5	-17.6	18.2	-24.7	-21.0	14.8	-26.0	-21.9	16.0
Female	-9.4	-4.1	56.1	-11.6	-6.5	44.0	-13.1	-7.9	40.0	-13.1	-7.4	43.9
Iraq												
Male	-15.8	-4.5	71.3	-22.8	-12.4	45.9	-28.4	-18.5	34.7	-30.3	-20.6	31.8
Female	-9.4	-2.6	72.5	-12.3	-5.8	53.3	-15.2	-8.8	42.0	-17.3	-10.9	36.9
Somalia												
Male	-20.4	-12.3	39.6	-27.2	-20.8	23.5	-31.5	-26.3	16.7	-31.2	-25.9	16.7
Female	-8.3	-4.1	50.5	-13.6	-9.0	34.0	-17.8	-13.0	27.0	-19.3	-14.7	23.8
Afghanistan												
Male	-17.5	-6.7	61.6	-26.0	-15.2	41.7	-32.1	-21.3	33.6	-32.9	-22.4	31.9
Female	-10.4	-2.2	79.0	-15.6	-7.5	51.7	-19.8	-12.2	38.2	-21.3	-14.6	31.4
Pakistan[3]												
Male	-14.0	-9.8	29.9	-26.7	-22.4	16.2	-36.7	-33.3	9.3	-40.0	-38.2	4.6
Female	-8.9	-4.8	46.1	-16.5	-12.4	24.6	-24.0	-20.3	15.5	-28.3	-25.1	11.2
China[3]												
Male	-16.6	-6.8	59.2	-29.5	-18.2	38.4	-39.5	-28.2	28.5	-41.6	-31.0	25.4
Female	-6.9	1.0	114.5	-15.2	-6.8	55.0	-22.5	-14.5	35.7	-24.5	-16.9	31.2

1. With controls for source country, years since landing, years since landing squared, and the interaction between the country and years since landing variables (Model 1).

2. With the controls in Model 1 and all the other explanatory variables (see "Data and methods" section).

3. The maximum number of years of data available since the landing year of the group is less than 15, since the latest data available are for 2014. Average earnings in the last available year of data since landing (the 13th for Colombia, the 14th for Pakistan and the 12th for China) are shown in the column for the 15th year. Growth rates for these groups are calculated for growth between the first year and the last year for which data are available (instead of the 15th year).

Source: Statistics Canada, Longitudinal Immigration Database.

For the refugee groups with the lowest earnings, such as those from Iran, Ethiopia, Iraq, Somalia, Afghanistan, Pakistan and China, the story was very different. These refugees (both men and women) earned from 40% to 60% of what economic-class immigrants did during the first year in Canada. Refugees from Iran and Ethiopia saw their earnings rise to from 60% to 70% of what economic-class immigrants earned 15 years after entering Canada. Refugees from the other countries saw no relative improvement. In fact, the earnings gap increased significantly for some refugee groups. After 15 years in Canada, those from Pakistan and China saw their relative earnings decline to 35% to 45% of what economic-class immigrants earned. For all the groups with low earnings, something other than observable characteristics accounts for these sometimes very large earnings gaps with economic-class immigrants. Five years after landing, the percentage of the gap explained rarely exceeded 50% and was sometimes as low as 20%. Other factors must be examined to learn why both male and female refugees from these countries earned so much less than economic-class immigrants did even after 10 or 15 years in Canada.

4.3.5   The difference in earnings among refugee program types

Refugees typically enter Canada one of four ways:

- government-assisted resettlement, which accounted for about 40% of the refugees from the 13 countries;
- private sponsorship, which accounted for one-third of the refugees;
- the In-Canada Asylum Program (i.e., they were already in Canada when they applied for refugee status), which accounted for one-quarter of the refugees;
- as refugee dependants, who accounted for only 3% of the refugees and were excluded in this section.

The average earnings among refugees entering through these programs varied considerably. For example, one year after entry, refugee men in the In-Canada Asylum Program earned the most, at around $24,000, followed by privately sponsored refugees at $23,000 and government-assisted refugees at $20,100 (Table 8, left panel). In the longer run, privately sponsored refugee men appeared to have the most economic success. After 10 years in Canada, they were earning $40,600, compared with $38,100 for government-assisted refugees and $33,200 for In-Canada Asylum Program refugees.

Table 8

Predicted average annual earnings of refugees from major source countries aged 20 to 49 at landing, by program of entry, gender and years since landing

Gender and years since landing	Unadjusted annual average earnings[1]					Adjusted annual average earnings[2]				
				Gap between government-assisted resettlement and					Gap between government-assisted resettlement and	
	Government-assisted resettlement	Private sponsorship	In-Canada Asylum Program	Private sponsorship	In-Canada Asylum Program	Government-assisted resettlement	Private sponsorship	In-Canada Asylum Program	Private sponsorship	In-Canada Asylum Program
	thousands of dollars									
Men										
Years since landing										
1	20.1	23.0	24.0	-2.9	-3.9	20.5	23.3	25.3	-2.8	-4.8
5	29.8	32.3	28.7	-2.5	1.1	30.0	31.2	31.0	-1.2	-1.0
10	38.1	40.6	33.2	-2.5	4.9	38.0	38.4	35.5	-0.4	2.5
15	42.3	45.3	36.2	-3.0	6.1	41.7	42.6	36.9	-0.9	4.8
Women										
Years since landing										
1	12.6	15.0	16.2	-2.4	-3.6	11.5	13.9	16.1	-2.4	-4.6
5	20.8	21.9	20.8	-1.1	0.0	19.2	20.1	21.6	-0.9	-2.4
10	27.9	28.6	24.8	-0.7	3.1	26.2	26.5	25.6	-0.3	0.6
15	31.7	33.4	26.6	-1.7	5.1	30.1	31.5	26.5	-1.4	3.6

1. With controls for program of entry, years since landing, years since landing squared, and the interaction between the program of entry and years since landing variables (Model 1).
2. With the controls in Model 1 and all the other explanatory variables (see "Data and methods" section).
Source: Statistics Canada, Longitudinal Immigration Database.

Many reasons could explain these differences in earnings. Privately sponsored refugees have a closer relationship with their Canadian sponsors immediately after entry. This may assist in job searches, training and language acquisition and provide them with an earnings advantage. In-Canada Asylum Program refugees have been in Canada for some time before they are granted permanent residence. Their exposure to Canadian society and the labour market may provide an advantage in the early years after landing.

Given the data available for this study, little can be learned about these possible advantages. However, another set of factors could affect the earnings differences, including the observable human capital characteristics (including source country) and economic conditions in the regions where refugees settle. The regression models described in the "Data and methods" section were used to produce adjusted earnings controlling for these variables (Table 8, right panel).

The results show that the effect of a program on earnings tended to be greater during the early years in Canada than in the long run. In the longer run, refugees learned more about job opportunities and experienced language and occupational training and other integration programs. These factors may have reduced any advantage that refugees in one program held over others.

The actual (unadjusted) data support this idea. One year after entry, privately sponsored immigrants held a $2,900 advantage over government-assisted refugees. Although the absolute gap stayed from $2,500 to $3,000 after 5 to 10 years in Canada, the relative percentage difference decreased (Table 8, right panel). In-Canada Asylum Program refugees held a $3,900 annual earnings advantage over government-assisted refugees the first year after entry, but after 5 to 10 years in Canada, this earnings gap turned negative.

The adjusted results suggest that the human capital, economic and source country characteristics accounted for very little of the earnings differential very early after immigration but accounted for a large portion of the differences after 5 to 10 years in Canada (Table 8, left panel). After observable differences were controlled for, privately sponsored refugees and government-assisted refugees had similar earnings about 10 years after immigration, while In-Canada Asylum Program refugee men earned $2,500 less than privately sponsored refugees after 10 years in Canada.

5   Conclusion

This study focuses on the employment and earnings outcomes of refugees to Canada from 13 major source countries over the 1980-to-2009 period. These outcomes were tracked for up to 15 years after entry. This paper discusses a number of salient findings.

First, male refugees from 7 of the 13 countries had employment rates over 75% five years after entry. But those from Iran and Somalia had very low employment rates. Female refugees from Iraq, Afghanistan, Pakistan and Somalia also displayed very low employment rates. Refugee groups that displayed relatively low male employment rates tended to display low female employment rates, and groups that displayed high male employment rates tended to display high female employment rates. To the extent that men and women marry within the same refugee group, the tendency of families to have both spouses not be employed would exacerbate poverty and economic inequality within that refugee group.

Second, the earnings of refugees from different countries varied greatly. Ten years after entering Canada, the refugee groups with the highest earnings (i.e., from the former Yugoslavia, Poland and Colombia) earned roughly double what those with the lowest earnings did (i.e., from Somalia, Afghanistan, Pakistan and China). Differences in outcomes were accentuated by the fact that groups with low employment rates tended to have low earnings levels among the employed, and groups with high employment rates tended to have high earnings among the employed. Furthermore, male and female refugees from the same country tended to have similarly low or high relative earnings. These high correlations in men's and women's earnings across groups tended to exacerbate any poverty issues for refugees with low earnings.

Third, differences in observable human capital characteristics, economic conditions and the program of entry to Canada explained either none or very little of the much lower than average earnings of the refugee groups with the lowest earnings. Other unknown and unobserved factors accounted for these low earnings. One possible explanation is that the education that these groups received in their source countries may have been of lower quality or have been perceived to be of lower quality, thereby affecting the possibility of finding jobs that matched their education level or the wages employers were willing to pay the university-educated in particular. Some evidence supports this notion. A separate regression analysis (not shown) revealed that university-educated refugees from Somalia, Afghanistan, Pakistan and China earned little more (from $1,100 to $4,400 per year) than their counterparts who graduated from high school. The returns to a university degree were quite low. In contrast, refugees from Poland, Colombia and Sri Lanka had an earnings advantage for a university degree in the $11,000-to-$12,000 range. Even if a significant share of the refugees from the countries with low returns had a university degree, this would have had little positive effect on overall average earnings. Other unknown factors may be related to some of the variation in earnings across source-country groups.

Distinguishing between the factors that are evident at landing and those that have an effect after landing is useful. Perceived or actual differences among refugees from different countries in the quality of education and labour market experience in the source country, cultural factors affecting labour market success, and discrimination may be some of the unknown factors at play immediately upon landing. This study found that the earnings variation among groups increased between year 1 and year 10 after landing. Differences among refugee groups in post-landing experiences that may have resulted in such an increase could include differences in

- the acquisition of official language skills
- the acquisition of occupational training
- work experience in Canada
- support received from ethnic communities in Canada
- willingness to move to find a job.

Such factors were not included in the models. In this context, it is not surprising that the models explained more of the variation in earnings among refugees from different countries at 1 year after landing than at 10 years after landing.

Fourth, immediately after entry, refugees from all countries earned less than family-class immigrants. However, the five refugee groups with the highest earnings (i.e., from the former Yugoslavia; Poland; Colombia; Viet Nam, Cambodia and Laos; and El Salvador) displayed much more rapid earnings growth than did the family- and economic-class immigrants entering during the same period. After 15 years, they earned from 80% to 110% of what family-class immigrants did. The story was very different for refugees in the five lowest earnings groups (i.e., from Iraq, Somalia, Afghanistan, Pakistan and China). Even after 15 years in Canada, they earned from 50% to 70% of what family-class immigrants did. For these groups, observable differences accounted for very little of the earnings gap with family-class immigrants, possibly for the reasons mentioned above. Once again, unobserved and unknown factors played a major role. The comparison with economic-class immigrants provided similar results, only the earnings gaps were larger. After 15 years in Canada, the groups with higher earnings earned from 60% to 90% of what economic-class immigrants did, and the lower earnings groups earned from 35% to 60%. Little of this latter gap could be explained in the analysis.

Fifth, the program under which refugees entered Canada seemed to matter, at least in the initial years. Even after differences in observable human capital, source country, and economic conditions were accounted for, privately sponsored refugees earned from $2,400 (for women) to $2,800 (for men) more than government-assisted refugees in the first year in Canada. This may be related to the assistance that the Canadian sponsors provided regarding job search, contacts and other integration services, as suggested by some previous studies (e.g., Beiser 2003; Roma 2016). Differences in human capital factors did not account for this initial gap, but they did account for most of the earnings gap 10 years after immigration. Refugees who claimed asylum within Canada initially earned $4,800 more (adjusted) than government-assisted refugees, but after 10 years they earned roughly $2,500 less. This may be because they had some Canadian work experience at entry; however, this advantage disappeared over time.

References

Abbott, M., and C.M. Beach. 2008. *Immigrant Earnings Distributions and Earnings Mobility in Canada: Evidence for the 1982 Landing Cohort from IMDB Micro Data*. CLSRN Working Paper no. 13. Vancouver: Canadian Labour Market and Skills Researcher Network.

Abbott, M.G., and C.M. Beach. 2011. *Do Admission Criteria and Economic Recessions Affect Immigrant Earnings?* IRPP Study no. 22. Montréal: Institute for Research on Public Policy.

Alba, R., and V. Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration*. Cambridge, Massachusetts: Harvard University Press.

Aydemir, A. 2011. "Immigrant selection and short-term labor market outcomes by visa category." *Journal of Population Economics* 24 (2): 451–475.

Beiser, M. 2003. "Sponsorship and resettlement success." *Journal of International Migration and Integration* 4 (2): 203–215.

Bevelander, P., and R. Pendakur. 2012. *The Labour Market Integration of Refugees and Family Reunification Immigrants: A Comparison of Outcomes in Canada and Sweden*. IZA Discussion Paper no. 6924. Bonn: Institute of Labor Economics.

CIC (Citizenship and Immigration Canada). 2006. *Facts and Figures: Immigration Overview: Permanent and Temporary Residents: 2005.* Research and Evaluation Branch. Ottawa. 114 p. Available at: http://publications.gc.ca/collections/Collection/Ci1-8-2005E.pdf (accessed October 16, 2018).

CIC (Citizenship and Immigration Canada). 2009. *Facts and Figures: Immigration Overview: Permanent and Temporary Residents: 2008.* Research and Evaluation Branch. Ottawa. 108 p. Available at: http://publications.gc.ca/collections/collection_2009/cic/Ci1-8-2008E.pdf (accessed October 16, 2018).

CIC (Citizenship and Immigration Canada). 2015. *Canada Facts and Figures: Immigration Overview: Permanent Residents: 2014.* Research and Evaluation Branch. Ottawa. 53 p. Available at: http://publications.gc.ca/collections/collection_2015/cic/Ci1-8-9-2014-eng.pdf (accessed October 16, 2018).

De Silva, A. 1997. "Earnings of immigrant classes in the early 1980s in Canada: A re-examination." *Canadian Public Policy* 23 (2): 179–202.

DeVoritz, D., and S. Pivnenko. 2004. *The Economic Experiences of Refugees in Canada*. IZA Discussion Paper no. 1088. Bonn: Institute of Labor Economics.

Evans, W.N., and D. Fitzgerald. 2017. *The Economic and Social Outcomes of Refugees in the United States: Evidence from the ACS*. NBER Working Paper Series, no. 23498. Cambridge, Massachusetts: National Bureau of Economic Research.

Green, D., H. Liu, Y. Ostrovsky, and G. Picot. 2016. *Immigration, Business Ownership and Employment in Canada*. Analytical Studies Branch Research Paper Series, no. 375. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Hou, F. 2017. *The Resettlement of Vietnamese Refugees Across Canada over Three Decades*. WIDER Working Paper no. 2017/188. United Nations University World Institute for Development Economics Research.

Immigration and Refugee Protection Act. S.C. 2001, c. 27, paragraph 3(2)(*d*).

IRCC (Immigration, Refugees and Citizenship Canada). 2016. *Evaluation of the Resettlement Programs (GAR, PSR, BVOR and RAP).* Last updated March 8, 2017. Available at: https://www.canada.ca/en/immigration-refugees-citizenship/corporate/reports-statistics/evaluations/resettlement-programs.html (accessed October 11, 2018).

Li, P.S. 2003. "Initial earnings and catch-up capacity of immigrants." *Canadian Public Policy* 29 (3): 319–337.

O'Connor, P. 2010. "Explaining the refugee gap: Economic outcomes of refugees versus other immigrants." *Journal of Refugee Studies* 23 (3): 377–397.

Painter, C.V., and A. Kokallaj. 2017. *Statistics Profile of Former Refugees by Crisis of Origin.* Ottawa: Immigration, Refugees and Citizenship Canada.

Pendakur, R. 2017. *Settlement and Labour Force Outcomes for Afghan Immigrants and Their Children in Canada.* WIDER Working Paper no. 2017/189. United Nations University World Institute for Development Economics Research.

Picot, G., and Y. Ostrovsky. 2017. *Immigrant Businesses in Knowledge-based Industries.* Economic Insights, no. 69. Statistics Canada Catalogue no. 11-626-X. Ottawa: Statistics Canada.

Portes, A., and M. Zhou. 1993. "The new second generation: Segmented assimilation and its variants." *Annals of the American Academy of Political and Social Science* 530: 74–96.

Roma, G. 2016. "The Indochinese refugee movement: An exploratory case study of the Windsor experience." *Refuge* 32 (2): 81–89.