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The resettlement of Vietnamese refugees across Canada over three decades

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The resettlement of Vietnamese refugees across Canada over three decades

Feng Hou*

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Abstract: Welcoming 60,000 Southeast Asian refugees in the 1979–80 period has become a celebrated part of Canada’s history, but the eventual integration of these refugees into Canadian society has received insufficient attention. This study provides a comprehensive overview of Vietnamese refugees’ economic outcomes over the three decades after their arrival. This study also explores how regional contexts contributed to shaping economic outcomes. Based on analyses of the 1981, 1991, and 2001 census and the 2011 National Household Survey, this study finds that adult Vietnamese refugees arrived with little human capital, but they had high employment rates, and over time they closed their initial large earnings gap with other immigrants. Childhood Vietnamese refugees out-performed other childhood immigrants and similar-aged Canadian-born individuals in educational attainment and earnings when they reached adulthood. The geographic region of residence was associated with some large variations in refugees’ socioeconomic outcomes; and regional differences in refugees’ human capital characteristics, ethnic enclave, and economic conditions played varying roles depending on the outcome measure and length of residence.

Keywords: Canada, earnings, economic integration, employment, poverty, Vietnamese refugees

JEL classification: I32, J15

All tables are located at the end of the paper.

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1 Introduction

At the height of the ‘Vietnamese boat people’ crisis, 60,000 Southeast Asian refugees were resettled in Canada between 1979 and 1980—the largest single influx of refugees admitted to the country in a short period. Canada accepted more refugees per capita than any other resettlement country at that time. Canadians from cities and towns of all sizes were mobilized to welcome these refugees to their communities. The generous and unprecedented welcome Canadians extended to these refugees was recognized internationally, and the United Nations High Commissioner for Refugees awarded its prestigious Nansen Medal to the ‘People of Canada’ in 1986. It is the only time the honour has been granted to an entire population.

With exceptional efforts, Canadians provided Southeast Asian refugees with an escape from persecution and the chance to establish a new life in a peaceful and prosperous society. These efforts have demonstrated convincingly the effectiveness of a model of government–public collaboration in resettling refugees, and created broad-based organizations that have played indispensable roles in Canada’s responses to subsequent refugee crises (Canadian Council for Refugees 1999). More than three decades have passed. Much has been written to record the events and experiences in that historical period. Numerous studies have documented various aspects of Southeast Asian refugees’ socioeconomic integration in Canada, particularly in terms of learning an official language, finding employment, health, and psychological wellbeing (e.g. Beiser 1999). Most of these studies were based on refugees’ outcomes in their initial years of resettlement and in specific regions or local communities.

This study adds to the literature by providing a comprehensive overview of Vietnamese refugees’ economic outcomes over the three decades after they began their new life in Canada. For refugees who arrived at their prime ages, this study covers almost their entire work career. For refugees who arrived in their childhood, this study examines their achievements when they reached adulthood. Using the 1981, 1991, 2001 and 2011 national census and survey data, this study compares Vietnamese refugees with other immigrants who arrived in the same years and the Canadian-born population in economic outcomes. In addition to a longitudinal perspective, this study also explores how the contexts of regions and local communities where Vietnamese refugees were located shaped their labour market outcomes. In particular, this study considers the effects of two key contextual factors: regional economic conditions and ethnic enclave.

2 National efforts of resettling Vietnamese refugees in Canada

Canada’s settlement of Southeast Asian ‘boat people’ occurred at a unique period in the country’s immigration history. A new Immigration Act, tabled in 1976 and coming into effect in 1978, articulated, for the first time, the main objectives of Canada’s immigration policy. One of the main objectives was to ‘fulfil Canada’s international legal obligations with respect to refugees and to uphold its humanitarian tradition with respect to the displaced and the persecuted’. This was also the first Canadian immigration legislation to recognize refugees as a special class of immigrants. Prior to 1978, refugees were admitted on an ad hoc, case-by-case basis, and as exceptions to regular immigration procedures. The new Act entrenched the definition of a Convention refugee, created a refugee determination system, and enabled the private sponsorship of refugees.

The humanitarian obligations embedded in the new Immigration Act and the provision of private sponsorship were immediately put to the test. Touched by the desperate plight of mass exodus of

Southeast Asian refugees who took to the high seas in makeshift boats, many Canadians came forward to offer their help. The outpouring of public support prompted the Canadian government to quickly and substantially expand its own commitment. For each refugee individual or family admitted under private sponsorship, the government pledged to bring in another under the government-assisted programme. Response from the public was so strong that the number of private sponsorships escalated and surpassed what the government was able to match. As a result, over half of the 60,000 Southeast Asian refugees who arrived in the 1979–80 period came through the private sponsorship stream (Beiser 2003; Canadian Council for Refugees 1999).

Faith-based communities, employee groups, community centres, and other organizations spontaneously came together to create private sponsorship groups willing and able to meet certain requirements, including the provision of financial support for one year or until the sponsored refugees became economically self-sufficient, whichever occurred first. Sponsors were expected to help the refugees find accommodation, to provide some orientation to the new environment, and to facilitate the newcomers' access to needed services. Government-assisted refugees received from government resettlement agencies essential services for the first few weeks, including transportation to temporary accommodation, assistance in accessing public services and in finding permanent accommodation, and life-skills training. They also received a one-time start-up allowance and monthly income support for up to one year based on provincial/territorial social assistance rates. Both privately sponsored and government-assisted refugees can also access services that are available to all new immigrants, including literacy and language trainings, and labour market access supports.

Private sponsorship played a key role in Southeast Asian refugees' socioeconomic integration. Beiser (2003) showed that privately sponsored Southeast Asian refugees had better outcomes in terms of being gainfully employed, being able to speak an official language of the receiving country, and feeling in good health when compared to government-assisted refugees. Neuwirth and Clark (1981) suggested that private sponsorship may provide a broad range of services beyond material help, including support for social and cultural adjustment. The friendship and emotional bonds between many refugees and their private sponsors often lasted years after the formal sponsorship period (Roma 2016).

Private sponsorship also strongly affected the geographic distribution of Southeast Asian refugees across the country. Privately sponsored refugees were received by their sponsors, who were scattered over Canada's ten provinces and two territories. At the same time, each province or territory was assigned a relocation quota based on its proportional representation to the total population of Canada. These regional quotas were a key consideration of government officers in assigning the destination of government-assisted refugees. Another key consideration was whether a refugee had relatives or friends in a particular area. Quite often the need to meet the regional quotas took priority, a situation that often resulted in secondary migration to join family (Beiser 2003; Simich 2003). Overall, Southeast Asian refugees were more evenly distributed across the country than other immigrants in their initial destinations. Furthermore, many of them remained in their initial settlement communities many years after their arrival, although they tended to have a higher rate of secondary migration than other immigrants (Hou 2007; Simich 2003).

Although this paper will not evaluate the benefits of private sponsorship relative to other avenues of refugee resettlement since the data used in this paper do not contain relevant information, the fact that over one-half of Vietnamese refugees who arrived in 1979–80 were sponsored by non-government organizations and individuals can help us understand the path and process of their economic integration. Because their initial destinations to a large extent were not chosen by themselves, the examination of how the contexts of local communities affect their labour market

outcomes is less subject to selection bias (at least in the initial years) than similar studies for regular immigrants.

3 Data, measures, and methods

The data for this study are drawn from the 1981, 1991, and 2001 Canadian censuses 20 per cent microdata files, and the 2011 National Household Survey (NHS).¹ This study focuses on Vietnamese refugees who arrived in Canada in 1979 and 1980 for three reasons. First, in these two years Canada received the largest number of the ‘boat people’. Vietnamese refugees started coming to Canada in 1975, and about 7,700 of them arrived between 1975 and 1978. This first wave of Vietnamese refugees consisted mostly of well-educated professionals, middle-class, elite members and supporters of the US and South Vietnamese governments (Beiser 1999; Wood 1997). They were quite different from the second-wave refugees, who arrived after 1978, in their socioeconomic status and experiences of fleeing. In particular, many second-wave refugees were ethnic Chinese who, although they might have lived in Vietnam for generations, were singled out for persecution after conflict between Vietnam and China.

Second, neither the census nor the NHS collected information on immigrant class that is needed to directly identify refugee status. However, immigration records show that about 98 per cent of the individuals who were born in Vietnam and came to Canada over the 1979–80 period were refugees.² Accordingly, it is reasonable to consider all individuals who were born in Vietnam and who arrived in the 1979–80 period as refugees. Vietnamese refugees continued to come after 1980, but in much smaller numbers, and the share of refugees among immigrants decreased rapidly, making it difficult to separate refugees from other immigrants with the census data for those who arrived after 1980.³ Finally, the initial outcomes of the 1979–80 arrivals can be measured in the first to second year after arrival in the 1981 census,⁴ which provides a narrowly defined starting point from which to examine their subsequent integration patterns.

For comparison purposes, this study also includes immigrants from other source regions who arrived in 1979–80, and the Canadian-born population. Comparison with other immigrants who arrived in the same period is a way to distinguish difficulties of resettling in a new country that new immigrants would generally experience from hardships that are unique to refugees. This study

¹ The Canadian federal government decided to replace the mandatory long-form census with a voluntary household survey in the 2011 census. Information that would have been included in the long-form census was instead collected in the 2011 NHS. Approximately 4.5 million (or 34 per cent of the total) households received the NHS questionnaire and unweighted response rate was 69 per cent.

² This estimate is based on the Immigrant Landing File (ILF) for 1980. Because the ILF only goes back to 1980, the share of refugees among total immigrants from Vietnam cannot be calculated for the 1979 arrivals.

³ For instance, based on the ILF, the share of refugees among Vietnamese immigrants was 78 per cent in the 1981 cohort and further reduced to 32 per cent in the 1984 cohort. The number of Vietnamese refugees decreased from 21,800 in 1980 to 5,800 in 1981, and further to 3,300 in 1982.

⁴ Because the 1981 census data were collected on 3 June, they would not cover refugees and immigrants who arrived in the second half of 1981.

excludes refugees from Laos and Cambodia, who were a smaller part of Southeast Asian refugees arriving in the same period.⁵

In the 1981 census 20 per cent sample microdata file, there were 7,247 Vietnamese who arrived in 1979 and 1980, corresponding to an estimated 36,730 population (see Appendix table 1 for details). This estimated population size is somewhat smaller than the number of total arrivals from Vietnam (43,710) recorded in immigration statistics. It is possible that some refugees might have emigrated (i.e. to the US and other settlement countries) at the time of the 1981 census, or refugees might be slightly under-sampled in the census. It is also possible that immigrant statistics over-counted immigrants from Vietnam.⁶ Nevertheless, the census sample is similar to the immigration statistics in age structure.⁷

The main economic outcomes in this study are poverty (low income) rates and poverty (low income) depth. While Canada does not have an official poverty definition, Statistics Canada routinely releases low-income estimates based on three indicators. One is the low-income cut-offs (LICOs), which take into account income versus expenditure patterns in seven family-size categories and in five community-size groups. Compared with the average household, a family at or below the LICOs spends 20 per cent more of its income on food, clothing, and shelter. Economic families are the basic units in deciding a family or individual's low-income status. A family is considered to be in the low-income classification if its total income is below the LICO, while an individual is considered to fall within this classification if his/her total family income is below the LICO. The second indicator is the low-income measure (LIM) that is delineated as half of the contemporary median adult-equivalent family income. The third is the market basket measure (MBM), which is based on the cost of a basket of goods and services that are deemed essential to maintain physical health and to moderately participate in community activities. Low-income estimates from these three measures tend to show similar trends in the long-run; however, in the short-run they often present different patterns (Zhang 2010). This study uses the before-tax LICO measure because it could be easily applied to the census data in 1981 and 1991.⁸

The depth of poverty is measured by the gap between family income and the LICOs among individuals living in low-income families, expressed as the ratio of the gap over the LICOs. The value of the ratio ranges between 0 and 1. A higher ratio indicates a position further below the poverty line.

While poverty incidence and depth are summary indicators of economic wellbeing at the family level, other indicators can be used to measure economic integration at the individual level. This study uses different additional indicators for refugees and immigrants who arrived at different life stages: childhood—arrived at age 17 or younger; prime-age—arrived at ages 18 to 44; and older-age—arrived at age 45 or over. These various groups would certainly experience different paths of socioeconomic integration in Canadian society, and should be evaluated separately. For childhood

⁵ This study also conducted the same analyses for refugees from Laos and Cambodia. The results are available on request. Compared with Vietnamese refugees, refugees from Laos and Cambodia tended to have lower educational levels and less successful labour market outcomes.

⁶ For instance, the published 1980 Immigration Statistics (Employment and Immigration Canada 1982) recorded 24,593 landed immigrants born in Vietnam. However, in the ILF there were only 22,328 immigrants arrived from Vietnam in the same year.

⁷ In the ILF, among immigrants from Vietnam in 1979–80, 36 per cent were aged 0–17 at immigration, 57 per cent aged 18–44, and 7 per cent aged 45 or over. In the census sample, among the 1980 cohort, 40 per cent arrived at age 17 or younger, 54 per cent aged 18–44, and 6 per cent aged 45 or over.

⁸ The official LIM became available in the early 1990s, while the MBM was developed in the late 1990s (Zhang 2010).

arrivals, high-school dropout rate, university completion rate (i.e. obtaining at least a bachelor's degree), and annual earnings upon reaching adulthood are used as outcome measures. For prime-age arrivals, employment rate and annual earnings are used as the outcome measures. An individual is defined as employed if he/she was engaged in gainful employment in the census reference week (i.e. the week before the census date). For elder arrivals, employment rate and the share of receiving social assistance income are used as outcomes. Among the Vietnamese refugee sample included in this study, about 36 per cent (2,646) were aged 0–17 at immigration, 57 per cent (4,124) aged 18–44, and 7 per cent (477) aged 45 or over.

Using a synthetic cohort approach, this study examines the selected outcomes over three decades following the Vietnamese refugees' arrival in Canada. Specifically, descriptive statistics are produced in the initial years (1–2 years after arrival) in the 1981 census, 11–12 years (the 1991 census), 21–22 years (the 2001 census), and 31–32 years (the 2011 NHS) for Vietnamese refugees, as well as for immigrants who arrived in 1979–80. Similar statistics are examined as they pertain to the Canadian-born population. To achieve a better matched comparison, analyses by arrival-age group are compared to the Canadian-born population who would have been in the same age range as the refugees in a given census. For instance, refugees who arrived at ages 18–44 would have been 19–45 in 1981, and 29–55 in 1991. The Canadian-born comparison groups would be aged 19–45 in 1981 and 29–55 in 1991.

To examine possible variations in the selected outcomes by geographic region, descriptive statistics are produced for six separate regions: Toronto, Montreal, Vancouver, second-tier cities (including the metropolitan areas of Ottawa, Calgary, Edmonton, Winnipeg, Hamilton, and Quebec City), small metropolitan areas, and small urban or rural areas. The first three largest metropolitan areas are the gateways of contemporary immigration to Canada.

For adult arrivals, multiple regression models are constructed to account for observed regional differences in employment rates and annual earnings. The main predictors include individual age, marital status, education, official language ability, regional ethnic concentration, and regional labour market conditions. Regional ethnic concentration is defined as the share of individuals with Chinese ethnic origin in a region for Vietnamese refugees who reported Chinese ethnic ancestry, and the share of individuals with Vietnamese ethnic origin in a region for refugees who reported Vietnamese ethnic origin. In deriving this measure, a region is defined as a census metropolitan area (an urban area with a population over 100,000), or census agglomeration area (a small urban area with a population over 10,000) for urban areas, or census division (county or other provincially legislated regional districts) for rural areas. In 1981, there were 171 such regions where Vietnamese refugees were located. The share of the Chinese ethnic population ranged across 6.7 per cent in Vancouver, 3.0 per cent in Toronto, 1.2 per cent in Montreal, and 0 in some rural areas in 1981. The share of Vietnamese ethnic population ranged from 0.47 per cent in a county in Manitoba, 0.42 per cent in Edmonton, 0.29 per cent in Montreal, and 0.13 per cent in Toronto and Vancouver, to 0 in 25 counties and small urban areas. Regional labour market conditions are measured by employment rates among prime-aged Canadian-born men in a region by four education levels (less than high-school graduation, high-school graduation, some post-secondary education, and with a university degree), and average annual earnings among prime-aged (ages 25–54) Canadian-born men by four educational levels. The regional employment rate is used in the models predicting employment among refugees, while regional average earnings are used in the models predicting earnings.

A regression decomposition technique is used to evaluate the relative role of each predictor in accounting for the observed regional differences in outcomes (Hou 2014).

4 Results

4.1 Changes in the geographic distribution of Vietnamese refugees

Vietnamese refugees were much more evenly distributed across the country in their initial destinations than other immigrants who arrived in the same period (Table 1). About 37 per cent of Vietnamese refugees were located in the three largest metropolitan areas of Toronto, Montreal, and Vancouver, compared with over 56 per cent of other immigrants concentrated in these areas. This difference reflects the fact that over one-half of Vietnamese refugees were sponsored by private organizations or individuals who were scattered over the country. Furthermore, the initial destinations of many government-assisted refugees were assigned by government officers according to pre-established regional quotas.

Over time, however, Vietnamese refugees' geographic distribution became increasingly concentrated towards the three large metropolitan areas, particularly in Toronto. After 20 years in Canada, the share of Vietnamese in Toronto surpassed that among other immigrants. Thirty years after arrival, their share in small metropolitan areas and small urban or rural areas decreased from 36 per cent to 10 per cent.

However, in spite of the high mobility, the second-tier cities retained almost 90 per cent of their initial share of Vietnamese refugees, while small metropolitan areas retained close to 50 per cent of their initial share even 30 years after their arrival. Refugees would be unlikely to choose these non-gateway areas for their initial destinations if they were not assigned to go there. Once they arrived, most of them found jobs and likely established a network of kin and friends. Small urban or rural areas were places that had problems in retaining not just refugees, but also other immigrants who willingly chose these as their initial destinations.

The high mobility and the associated selectivity among those who moved imply that caution has to be exercised in interpreting the regional variation in economic outcomes among refugees, particularly many years after their initial settlement. If refugees who had more difficulties in finding gainful employment were more likely to move away from non-gateway areas, the observed regional variation in economic outcomes would be biased upwards for non-gateway areas and downwards for gateway cities, particularly Vancouver, which had the largest ethnic enclave.

4.2 Incidence and depth of poverty

Table 2 presents poverty rates and poverty gap ratios for Vietnamese refugees and other immigrants by period and region, and the corresponding statistics for the Canadian-born population.

Within a year of their arrival (i.e. in 1980, the year income information was collected for the 1981 census), Vietnamese refugees had very high levels of poverty, over four times that of the Canadian-born population and close to twice that of other immigrants. Their poverty gap ratios were also about 50 per cent higher than those among the Canadian-born population. These statistics at least partly resulted from the fact that those who arrived in 1980 did not have a full year to find employment and earn income. In addition, within the first year of arrival, refugees received financial support from the government or private sponsors to cover their essential needs for housing, food, and clothing. For government-assisted refugees, assistance levels for food and rent follow each province's basic social assistance rates. For privately sponsored refugees, some of the financial support was not through cash payment, but rather in the form of free food, clothing, and accommodations paid for directly by the sponsors. Furthermore, this financial assistance, although

not high enough to keep refugees above the poverty line, afforded them time to spend learning the official language(s), pursuing education and training, and working part-time. These factors could also explain the lack of clear regional differences in the poverty statistics among Vietnamese refugees.

About 10 years after arrival (i.e. 1990), poverty rates among Vietnamese refugees remained about 50 per cent higher than among the Canadian-born population, and 28 per cent higher than among other immigrants. Large regional variations appeared in the poverty rates among refugees. Part of the regional variations reflected differences in economic conditions. For instance, the poverty rate among the Canadian-born population was about 7 percentage points higher in Montreal than in Toronto. In the same year, Montreal had a much poorer economic status than Toronto, as evident in a 5.2 percentage point difference in the unemployment rate among working-age men in the two metropolitan areas. The differences in poverty rates between the two metropolitan areas were much larger among Vietnamese refugees (14 percentage points) and other immigrants (16 points) than among the Canadian-born population. This is consistent with the general finding that immigrants tend to be affected more strongly by poor economic conditions than the native population (Hou 2013). Interestingly, in small metropolitan areas Vietnamese refugees had a poverty rate the same as other immigrants, and both had slightly lower rates than the Canadian-born population. Their better outcome in smaller metropolitan areas was likely related to the selective outmigration discussed earlier. In terms of the poverty gap among individuals in poverty, Vietnamese refugees tended to be less far below the poverty line than the Canadian-born and other immigrant populations.

After 20 years in Canada (i.e. in 2000), the poverty rate among Vietnamese refugees was equal to that of other immigrants, and only 1.5 percentage points (or 9 per cent) higher than the Canadian-born population. In Toronto and Montreal in particular, the poverty rates of Vietnamese refugees were not very different from those of the Canadian-born population, even lower than those of other immigrants. In Vancouver, however, Vietnamese refugees had a considerably higher poverty rate than other immigrants and the Canadian-born population. In 2000, Vancouver had a lower unemployment rate and higher employment rate than Montreal. Thus, the economic conditions were not a likely explanation for Vietnamese refugees' relatively high poverty rate in Vancouver. Selective mobility towards Vancouver could be a potential reason.

Three decades after arrival (i.e. in 2010), Vietnamese refugees still had a slightly higher poverty rate than other immigrants (1.3 percentage points). The disadvantage of Vietnamese refugees was mostly concentrated in Vancouver. In Montreal, Vietnamese refugees had a lower poverty rate than other immigrants. These differences, as will be shown in the subsequent analyses, were likely related to the human capital differences of Vietnamese refugees living in the two metropolitan areas.

Overall, over the three decades of resettlement, the poverty rates among Vietnamese refugees decreased from 76 per cent in the first year after arrival, to 25 per cent after 10 years, 17 per cent after 20 years, and to 15 per cent after 30 years. In comparison, the poverty rate among other immigrants decreased from 41 per cent in the first year, to 19 per cent after 10 years, 17 per cent after 20 years, and 14 per cent after 30 years. Clearly, Vietnamese refugees started with a very low level of economic wellbeing, but they experienced faster improvement than other immigrants, and caught up with them after 20 years.

Vietnamese refugees who arrived at different ages certainly contributed differently to the group's improvement in economic wellbeing over the three decades of resettlement. Some elder refugees found work in the initial years after arrival, but would gradually dropout of the labour force due to old age, and became dependent on their family and government for economic support. Those

who arrived at prime ages would gradually overcome their deficiencies in human capital and reach the peak of gainful employment in 1–2 decades after arrival. Most childhood refugees would go to school, finish their education, and start their labour activities 10–20 years after their arrival. An examination of each age group's experience provides a full picture of Vietnamese refugees' economic integration.

4.3 Prime-aged refugees

Improvement in language ability and education

Since prime-aged (18–44 years) arrivals constituted the majority of Vietnamese refugees, their labour market outcomes would determine the group's overall economic wellbeing, at least in the first couple of decades. Their success in the labour market depends to a large extent on their human capital characteristics, particularly the ability to speak an official language and educational level. Table 3 shows the percentages speaking English or French and high-school graduation rates for prime-aged Vietnamese refugees and other immigrants by length of stay in Canada, and for similar-aged Canadian-born individuals.

Compared with other immigrants, Vietnamese refugees were less likely to speak English or French both in the initial years after arrival and in the long run. About 1–2 years after arrival (in 1981), about one-quarter of Vietnamese refugees could not speak English or French.⁹ Note that at the time of arrival very few refugees could speak an official language. According to the ILF, about 90 per cent of prime-aged Vietnamese refugees who arrived in 1980 self-declared as not speaking an official language, compared with about one-quarter among other immigrants who arrived in the same year.¹⁰ Assuming the census and ILF data sources are comparable, the majority of Vietnamese refugees acquired some ability to speak an official language within 1–2 years after arrival. This remarkable improvement was made possible because the federal government offered second-language classes to refugees and other new immigrants. A survey on Southeast Asian refugees showed that over three-quarters of adult Southeast Asian refugees had taken government-funded language classes, close to 10 per cent had participated in formal Canadian education, and about 10 per cent had used private English tutoring within 1–2 years after arrival (Hou and Beiser 2006). In spite of their extraordinary progress, about 12 per cent of adult Vietnamese refugees remained unable to speak an official language after 20 years in Canada, compared with 4 per cent for other immigrants.

There were also large regional variations in the share of Vietnamese refugees who could not speak an official language. Toronto and Vancouver had the highest share of Vietnamese refugees who could not speak an official language, both in the initial years and after 2–3 decades of resettlement. It is possible that refugees who could not speak an official language were more likely to be attracted to the co-ethnic communities in Toronto and Vancouver both initially and in subsequent migration. The existence of large co-ethnic communities could also provide a socioeconomic environment and leisure activities that allow the use of a mother tongue, and reduce the need and incentives to learn the language of the new society (Espenshade and Fu 1997). Conversely, Vietnamese refugees had much higher rates of speaking an official language in small metropolitan areas and small urban or rural areas, particularly 2–3 decades after arrival. This is likely attributable to the lack of co-ethnic communities and outmigration. It could also be due to a greater degree of

⁹ The census only asked whether the respondent can speak English or French well enough to conduct a conversation, it did not measure the proficiency of the respondent's official language ability.

¹⁰ The author estimated from the ILF, which covers all immigrants who have landed in Canada since 1980.

welcome in smaller communities leading to increase in the number of social contacts from the resident population.

Vietnamese refugees had a relatively high rate of speaking an official language in Montreal, both in the initial years and in the long run, compared with the pattern in the other two gateway centres. Montreal was the destination for over one-half of the first wave of Vietnamese refugees who arrived between 1975 and 1978. These first-wave refugees tended to be well-educated and privileged individuals before fleeing Vietnam. Many second-wave refugees who were settled in Montreal were likely their relatives who had higher socioeconomic status than other second-wave refugees who were settled in other parts of Canada. Furthermore, both the first wave and the 1979–80 cohort of Vietnamese refugees who settled in Montreal were mostly of Vietnamese ethnic origin and there was no pre-existing large-scale Vietnamese ethnic community and ethnic economy for them to rely on. In comparison, both the first wave and the 1979–80 cohort of Vietnamese refugees who settled in Toronto and Vancouver consist of a large proportion of individuals with Chinese ethnic origins who could rely on the large ethnic community for social and economic activities without the ability to speak the official language.¹¹

In addition to the ability to speak the official language of the receiving country, education is another key human capital characteristic that affects the economic outcomes of refugees and immigrants. The right-hand panel of Table 3 shows that Vietnamese refugees had much lower rates of high-school graduation than other immigrants and the similar-aged Canadian-born population both in the initial years and in the long run. While their high-school graduation rate did increase over time, the increase was small—only about 8 percentage points over two decades—given their low initial level. After 20 years in Canada, over one-half of the adult Vietnamese refugees had education below high-school graduation.

Similar to the regional differences observed in the ability to speak an official language, Vietnamese refugees who settled in Montreal had a much higher rate of high-school graduation than their counterparts in Toronto and Vancouver. As discussed above, it is possible that better-educated Vietnamese were settled in Montreal partly because many of them were related to the first wave of Vietnamese refugees who disproportionately settled in Montreal. More strikingly, the high-school graduation rate rose by about 10 percentage points over the first two decades among refugees in Montreal where refugees' initial rate of high-school graduation was over 20 percentage points higher than in other areas. In contrast, little improvement was observed in Toronto and Vancouver. Similar patterns were observed when the university completion (i.e. with at least a bachelor's degree) rate is used as the measure of educational attainment. About 15 per cent of Vietnamese refugees in Montreal had a university degree in 1981, and the share rose to 24 per cent in 2001. The corresponding rates increased from 4 per cent to 7 per cent in Toronto, and from 3 per cent to 4 per cent in Vancouver (statistics not presented in the table, but available on request).

Employment

In spite of their deficiencies in human capital characteristics, Vietnamese refugees were eager to find jobs, and within a year or two after arrival their employment rates surpassed those of other immigrants. The left panel of Table 4 presents the employment rates for prime-age Vietnamese refugees and other immigrants who arrived in 1979–80. In 1981, about 75 per cent of adult Vietnamese refugees who arrived in 1979–80 were already employed, compared with rates of 70

¹¹ In the 1981 census, about 13 per cent of the first wave of Vietnamese immigrants were of Chinese ethnic origin in Montreal, 33 per cent in Toronto, and 37 per cent in Vancouver. Among the 1979–80 arrivals from Vietnam, 26 per cent self-reported Chinese ethnic origin in Montreal, 56 per cent in Toronto, and 62 per cent in Vancouver.

per cent among other adult immigrants and 73 per cent in the similar-aged Canadian-born population. Vietnamese refugees' high level of employment within two years of arrival was likely due to two reasons. First, many privately sponsored refugees received help from their sponsors in finding employment. Second, Vietnamese refugees had a strong desire to become self-sufficient and also obligations to make and save money in order to sponsor family members who were left behind in refugee camps or in Vietnam. They took on any available jobs, often part-time and with little pay (Beiser 1999; Canadian Council for Refugees 1999).

By 10–11 years after arrival (i.e. in 1991), however, Vietnamese refugees lost their lead over other immigrants in employment rates as the latter group had a faster rate of growth (data points not shown in the table). The Canadian economy was in recession in 1991, and the less educated were hit particularly hard. Vietnamese refugees were likely affected more strongly because most of them did not finish high school.¹² After 20 years (in 2001) and 30 years (in 2011) in Canada, Vietnamese refugees had similar employment rates as other immigrants, and both had higher rates than the similar-aged Canadian-born population.

A rather counter-intuitive regional variation in employment rates can be seen in Table 4 (left panel). Although Vietnamese refugees had a much higher proportion speaking an official language and a much higher high-school graduation rate in Montreal than in Toronto and Vancouver (as in Table 3), their employment rate was much lower in Montreal, particularly in 1981. In 1981, the employment rates of Vietnamese refugees differed by 14.3 percentage points between Montreal and Toronto, and 16.4 percentage points between Montreal and Vancouver. In 1991, the corresponding difference between Montreal and Toronto remained at 3.9 percentage points, but decreased to 2 percentage points between Montreal and Vancouver. These regional differences more or less persisted over the entire three decades. There are two likely explanations for these regional differences. The first is an ethnic enclave effect, particularly in the initial years. Proportionately more Vietnamese refugees with Chinese ethnic origin lived in Vancouver and Toronto, where the existing ethnic economy and ethnic network could help newcomers find employment. The second is the impact of local labour market conditions. Given that other immigrants and the Canadian-born population had similar large differences in employment rates between Montreal and the other two major gateway centres, local labour market conditions could be the underlying determinant of the observed regional differences for refugees and other population groups.

To evaluate the relative role of ethnic enclave, regional labour market conditions, and individual-level characteristics in accounting for the observed large regional differences in employment rates among Vietnamese refugees, linear probability regression models were estimated for 1981 and 1991 separately, as in the left panel of Table 5. For each year, Model 1 contains only the dummy variables for regions, with Toronto as the common reference. The coefficients simply replicate the observed differences in employment rates between Toronto and each of the other regions, as shown in Table 4. For instance, the coefficient -0.143 associated with Montreal in Model 1 for 1981 indicates that the employment rate of Vietnamese refugees in Montreal was 14.3 percentage points lower than that in Toronto, and this difference is statistically significant. Model 2 adds in all the covariates. The changes in the coefficients associated with the dummy variables for regions from Model 1 and Model 2 represent the portion of the observed differences that can be accounted

¹² A regression model that uses employment rates as the outcome and includes geographic region, age, sex, marital status, education, official language, and regional economic conditions accounts for the gap between Vietnamese refugees and other immigrants in employment rates in 1991. Further decomposition analysis shows that lower educational level and higher concentration in areas with relatively low employment rates played the main role in accounting for the gap for Vietnamese refugees.

for by the added covariates. For instance, the coefficient associated with Montreal changed to -0.028 and was not significant in Model 2, implying that most of the observed 14.3 percentage point difference in employment rates between Montreal and Toronto was accounted for by the added covariates. In the same year, the large gaps in employment rates observed for small metropolitan areas and small urban or rural areas were also mostly accounted for by the added covariates.

Model 2 for 1981 in Table 5 also shows that higher employment rates were associated with men (relative to women), increased age (at least in the younger age range), less than university education, speaking an official language, and not being married. The effect of ethnic enclave is statistically significant and large. One percentage point increase in the share of own-ethnic group members in a region was associated with 2.1 percentage point increase in the employment rate. Thus, the employment rate of Vietnamese refugees could differ by 14 percentage points between a region without any ethnic group members and Vancouver, where the share of the Chinese population reached 6.7 per cent (i.e. $(6.7 - 0) \times 2.1 = 14$). The effect of regional employment rates was also significant and substantially large.

Regression decomposition (Hou 2014) results show that differences in regional economic condition as measured by the employment rate of prime-aged Canadian-born men accounted for 59 per cent of the gap in employment rates of Vietnamese refugees in Montreal relative to Toronto, while ethnic enclave accounted for another 22 per cent (the detail decomposition results are available on request). For the gap in employment rates between Montreal and Vancouver, ethnic enclave played a relatively larger role (about 54 per cent) than regional employment rates (about 31 per cent). For the differences between smaller metropolitan areas and Toronto, and between small urban or rural areas and Toronto, regional employment rates accounted for about 60 per cent, while ethnic enclave accounted for about 40 per cent.

In 1991, the regional variation in the employment rates of Vietnamese refugees became smaller relative to 10 years earlier as employment rates rose considerably in Montreal, small metropolitan areas, and small urban or rural areas, but decreased in Toronto and Vancouver. This was likely because the recession in 1991 affected Toronto and Vancouver more severely than other places since similar changes were also observed among the Canadian-born population. It could also relate to selective migration of less successful immigrants to Toronto and Vancouver.

In the models predicting employment of Vietnamese refugees in 1991, sex, official language ability, marital status (signs changed), and regional employment rates remained significant explanatory variables. The effect of ethnic enclave became not significant, likely suggesting its diminished role in helping longer-term refugees. The full model accounted for the entire 3.9 percentage point gap in employment rate between Montreal and Toronto, and regional employment rates alone accounted for 70 per cent of the difference.

Annual earnings

While finding a job is the first major step towards self-sufficiency of refugees, the quality of the job, particularly the earnings levels, determines the level of economic wellbeing gained from engaging in the labour market. In this regard, Vietnamese refugees did poorly relative to other immigrants and the Canadian-born population, mostly in the first 10 years. Table 4, right panel, presents median annual earnings among individuals who earned at least CA\$500 of employment income (in 2010 constant dollars) for prime-aged Vietnamese refugees, other immigrants, and the similar-aged Canadian-born population. In 1980, Vietnamese refugees earned about 30 per cent less than other immigrants.

This large gap in 1981 likely resulted from at least three possible sources: (1) some refugees were still receiving financial support from either the government or private sponsors, and many refugees were still in language training. Thus they worked fewer hours than other immigrants or the Canadian-born population. (2) More of them were located in small metropolitan areas and small urban or rural areas where earnings were relatively low also for the Canadian-born population. (3) They had lower language ability and education levels. A regression analysis showed that the three factors could account for about half of the earnings gap between Vietnamese refugees and other immigrants in 1981, with regional economic conditions (as measured by average earnings of prime-aged Canadian-born men by education) and weeks worked playing more important roles than group differences in human capital factors.

The gap of Vietnamese refugees in annual earnings relative to other immigrants narrowed to about 15 per cent 10 years after arrival in 1991. About one-half of the gap was related to their lower educational level and smaller share speaking an official language, and regional economic conditions. The gap continued to narrow to 6 per cent 20 years after arrival in 2001. Thus, although Vietnamese refugees started with a large initial earnings gap relative to other immigrants, their earnings growth rate was much faster, and the gap became small after 20 years in Canada.

In terms of the regional variation, Vietnamese refugees in 1980 had much lower median annual earnings in small metropolitan areas and small urban or rural areas than in Toronto (Table 4). These gaps, particularly the one with small metropolitan areas, are large and statistically significant, as shown in regression Model 1 in Table 5 (right panel) for log earnings of Vietnamese refugees. Model 1 contains dummy variables for geographic regions, with Toronto metropolitan area as the common reference. To examine factors that may account for these regional differences, Model 2 adds sex, age, education, official language, marital status, ethnic enclave, weeks worked in the year, full-time versus part-time status, as well as regional economic conditions as measured by the log of average annual earnings of prime-aged Canadian-born men by education.¹³

Model 2 for 1981 shows that speaking an official language was associated with 10 per cent higher earnings, while higher level of education was not associated with higher earnings. Weeks worked, full-time status, local concentration of ethnic group members, and regional average earnings were strong predictors of annual earnings of Vietnamese refugees. A 1 percentage point increase in the population share of own-ethnic group in a region was associated with 2.2 per cent higher annual earnings. A 1 per cent increase in regional average earnings was associated with a 0.55 per cent increase in the annual earnings of Vietnamese refugees. When all the covariates are included, the earnings gaps associated with small metropolitan areas and small urban or rural areas relative to Toronto became not significant. Further decomposition results suggest that fewer weeks worked and regional economic conditions were the key factors accounting for the observed gaps.

Ten years later (in 1990), large differences emerged among three gateway centres. Vietnamese refugees had much higher earnings in Toronto than in Montreal and Vancouver (Table 4). Similar regional differences, although smaller between Toronto and Vancouver, were also observed for other immigrants and the Canadian-born population. This suggests that the regional differences observed among Vietnamese refugees were at least partly driven by regional economic conditions. The regression models for log earnings in 1990 show that much of the observed earnings gaps in Vancouver and Montreal relative to Toronto are accounted for by the included covariates. Further decomposition analysis indicates that weeks worked and regional economic conditions played the

¹³ The average annual earnings of Canadian-born male workers aged 25–54 in each region are calculated for educational levels: less than high school, high-school graduation, some post-secondary education, and with a university degree. These statistics are attached to the refugee sample by the corresponding region and education level.

major roles. Model 2 for 1990 also shows that ethnic enclave is no longer a significant predictor of earnings among Vietnamese refugees, while weeks worked, full-time status, and regional average earnings are strongly associated with refugees' earnings.

Similar regional differences in earnings of Vietnamese refugees persisted 20 (in 2000) and 30 (in 2010) years after their arrival, with Vietnamese in Toronto having higher earnings than in Montreal and Vancouver. Similar regional differences are observed among other immigrants and the Canadian-born population in the corresponding years.

4.4 Childhood refugees

Many refugees risked their lives to flee persecution, violence, and hardship, not just for a safe place to survive for themselves, but mostly to find an environment for their children to have a brighter future. In this regard, the socioeconomic outcomes of childhood refugees are important indicators of long-term integration of Vietnamese refugees in Canada.

Table 6 presents the high-school dropout rates, university completion rates, and median annual earnings of refugees and other immigrants who arrived at age 17 or younger. The outcomes are measured when they reached ages 20–37 in 2001 and 30–47 in 2011. These outcomes are also presented for similar-aged Canadian-born persons in the respective years.

The high-school dropout rates and university completion rates of childhood Vietnamese refugees relative to other immigrants and the Canadian-born population reveal a bifurcation phenomenon that has been observed among Vietnamese youth in the US (Bankston and Zhou 1997). On the one hand, childhood Vietnamese refugees were more likely to have dropped out of high school than other immigrants or the similar-aged Canadian-born population, particularly in 2011. On the other hand, despite their parents' generally low levels of education, childhood Vietnamese refugees who finished high school were more likely to complete university than other immigrants and the Canadian-born population. For instance, in 2011, close to 36 per cent of childhood Vietnamese refugees had finished a university degree at age 30–47, compared with 32 per cent among other childhood immigrants and 26 per cent among the similar-aged Canadian-born population.

Corresponding to their higher university completion rates, childhood Vietnamese refugees had higher median earnings than other childhood immigrants and the similar-aged Canadian-born population, particularly in 2001. However, at the group level, other childhood immigrants and the Canadian-born population had a faster earnings growth in the following decade. As a result, childhood Vietnamese's lead in median earnings over other immigrants and the Canadian-born population became much smaller by 2011.

There were regional variations in education and annual earnings patterns. Childhood Vietnamese refugees had the highest university completion rate and lowest high-school dropout rate in Montreal in both 2001 and 2011. The advantage in Montreal was consistent with a much higher educational level and official language ability among Vietnamese refugee parents in Montreal relative to other regions, as shown previously in Table 3. Previous Canadian studies suggest that parents' education and language ability are key determinants, more important than family income, of the educational attainment among the children of immigrants and refugees (e.g. Hou and Bonikowska 2017). Childhood Vietnamese refugees in Vancouver had the highest high-school dropout rate and lowest university completion rate in 2001, when they were age 20–37, and had considerably lower educational levels than their counterparts in Montreal and Toronto when they reached age 30–47 in 2011. It is not clear why there was a large difference between Vancouver and Toronto. Vietnamese refugee parents in Vancouver and Toronto had similar official language ability and educational levels. Vancouver had a larger Chinese community than Toronto, so the

effect of ethnic enclave could be a possible explanation. However, childhood Vietnamese refugees with Chinese and Vietnamese ethnic origins had similar university completion rates in Vancouver. This suggests that the existing Chinese enclave was not directly associated with a disadvantage for those with Chinese ethnic origin.

Although childhood Vietnamese refugees in Montreal had an advantage in educational attainment relative to their counterparts in Toronto, their annual earnings were lower in Montreal than in Toronto in both 2000 and 2010. An even larger difference in annual earnings between Toronto and Montreal existed among other childhood immigrants and similar-aged Canadian natives, implying that Toronto had an advantage in the wage structure of the economy. It seems that, for childhood Vietnamese refugees, Toronto's large advantage in economic conditions trumped Montreal's moderate advantage in educational attainment. However, childhood Vietnamese refugees had higher earnings in Montreal than in Vancouver, while the opposite held for other childhood immigrants and the Canadian-born population. This suggests that, for childhood Vietnamese refugees, Vancouver's moderate advantage in economic condition was not enough to offset the group's large gap in educational attainment and the possible negative effect of ethnic concentration.

4.5 Elder refugees

A small number of Vietnamese refugees, about 7 per cent, arrived at age 45 or older. Given their age, they would not be expected to make as much economic contribution as younger arrivals. The question here is how their economic wellbeing compared with similar-aged other immigrants and the Canadian-born population.

Table 7 presents employment rates and the rates of receiving social assistance for elder refugees, and similar-aged other immigrants and the Canadian-born population. Because of the small sample size of elder Vietnamese refugees (477 in 1981), only national-level statistics are presented.

A year or two after arrival (in 1981), close to 48 per cent of elder Vietnamese refugees were employed, compared with 45 per cent among the similar-aged Canadian-born population and 29 per cent among other elder immigrants. About 10 years later, 29 per cent of elder Vietnamese refugees were employed, a rate slightly higher than that for other immigrants and the Canadian-born population. The majority of elder Vietnamese refugees exited the labour force 20 years after arrival, just like similar-aged other immigrants and their Canadian-born counterparts.

In terms of receiving social assistance income other than Old Age Security (OAS), Guaranteed Income Supplement (GIS), and employment insurance benefits, elder Vietnamese refugees and immigrants had lower rates within the first 1–2 years after arrival than the Canadian-born elderly. This difference was likely because they might not qualify for some of the social assistance programmes. After 10 years, both elder Vietnamese refugees and immigrants had higher rates of receiving social assistance than the similar-aged Canadian-born population. Once reaching age 65, refugees and immigrants who have stayed in Canada for 10 years are eligible to receive the full amount of government OAS and GIS that low-income Canadian-born persons would receive. However, elder refugees and immigrants did not work many years in Canada to accumulate employer- or government-sponsored pensions, and thus they were more likely to receive social assistance in addition to OAS and GIS than similar-aged Canadian-born persons.

5 Conclusion and discussion

Welcoming 60,000 Southeast Asian refugees in the 1979–80 period has become a celebrated part of Canada's history, but the eventual integration of these refugees into Canadian society has received insufficient attention. This study provides a comprehensive overview of Vietnamese refugees' economic outcomes over the three decades after their arrival. This study also explores how regional contexts contributed to shaping economic outcomes.

During the early years of resettlement, Vietnamese refugee families were more likely to be poor than other immigrant families or than their native-born counterparts. However, in subsequent years the refugees experienced faster improvement in their economic status than other immigrants who arrived in Canada at roughly the same time. After 20 years in Canada, the poverty rate among Vietnamese refugees was similar to other immigrants and the Canadian-born population. High employment rates and fast earnings growth among those who arrived at prime working ages, as well as educational advancement and high adult-era earnings by refugees who arrived in Canada as children were the most likely explanations.

Adult Vietnamese refugees arrived with little human capital. Only a small proportion spoke one of Canada's official languages, and most had not finished high school. Remarkably, within 1–2 years after arrival, the majority of adult Vietnamese refugees acquired some official language fluency. Clearly, they took full advantage of the language training opportunities offered by the government. Some also upgraded their education, although their high-school graduation rate remained much lower than other similar-aged immigrants and the Canadian-born population. In spite of deficiencies in human capital, adult Vietnamese refugees were successful enough in finding jobs that, within a year or two after arrival, they were more likely than other immigrants to be gainfully employed. In the initial years, adult Vietnamese refugees worked primarily in low-quality jobs, as reflected in large earnings gaps between the refugees, other immigrants, and similar-aged Canadian-born workers. However, they experienced faster earnings growth, and their earnings gap became small after 20 years in Canada.

The refugees' low educational attainment was an apparent source of continuing vulnerability. For example, during the recession in the early 1990s, the refugees were more likely to be unemployed than their better-educated immigrant and native-born counterparts.

By 20–30 years after arrival, with the economy restored to more normal functioning, the refugees were as likely to be employed as other immigrants. Both refugees and immigrants had higher employment rates than native-born Canadians of the same age.

Childhood Vietnamese refugees achieved even greater success than their adult counterparts. In spite of the hardships of the refugee experience and limited family resources, childhood Vietnamese refugees who went on to post-secondary education were much more likely to complete a university degree than other childhood immigrants or their Canadian-born counterparts. However, they also had a higher high-school dropout rate. These results parallel findings from the US, where Vietnamese American youth were over-represented among both high achievers and the disadvantaged (e.g. Bankston and Zhou 1997).

Probably because of their high educational attainment, childhood Vietnamese refugees had much higher annual earnings than other childhood immigrants and the similar-aged Canadian-born population in the early stage of their working careers (ages 20–37). However, their lead in earnings narrowed during the following decade. Future studies should examine whether the trend continues

into the later stage of their work career; and if so, whether that may be due to differences in occupational structures or to structural factors limiting upward mobility.

As the result of private sponsorship and government allocation, Vietnamese refugees were more evenly distributed across Canada in their initial destinations than other immigrants. Because many refugees settled initially in places where family support and ethnic networks did not exist and good jobs could not be easily found, they had higher secondary mobility than other immigrants (Hou 2007; Robinson and Coleman 2000; Simich 2003). Moving away from initial destinations without sufficient employment opportunities and towards large urban areas to seek social support from family and ethnic communities are often listed as the main reasons of refugees' secondary mobility (Krahn et al. 2005; Simich 2003). Nevertheless, many Vietnamese refugees remained in second-tier cities and small metropolitan areas.

The geographic region of residence was associated with some large differences in refugees' socioeconomic outcomes, but the patterns varied by the outcome measure and length of residence. Regional differences in refugees' human capital characteristics, ethnic enclave, and general economic conditions played different roles. Over time, the 1979–80 cohort of adult Vietnamese refugees in Montreal achieved a much higher rate of speaking an official language and higher educational level than their counterparts in Toronto and Vancouver. Many refugees who initially settled in Montreal were likely the relatives of first-wave Vietnamese refugees who mostly were the privileged population back in Vietnam. Conversely, the existing ethnic enclaves in Vancouver and Toronto were more likely to receive and retain refugees with limited human capital. The regional differences in educational attainment among adult refugees were passed on to, or even amplified among, childhood refugees, as manifested by a very large difference in university completion rates between Vancouver and Montreal. The large regional differences in educational attainment among childhood refugees likely reflect the predominant influence of parents' educational attainment on their children's educational outcomes, and the role of ethnic enclave in reducing the need or motivation to pursue higher education.

Despite a comparative deficit in human capital, adult refugees in Toronto had consistently higher employment rates and annual earnings than those in Montreal, probably because of a prevailing economic advantage enjoyed by Toronto. The working careers of refugees who arrived as children paralleled those observed among refugee adults, suggesting that large regional differences in general economic conditions may trump moderate regional differences in refugees' human capital characteristics. These findings are consistent with previous reports that immigrants experience little disadvantage when there is strong labour demand, but face large disadvantages under poor economic conditions (e.g. Hou 2013). Like-ethnic concentration had positive effects on adult refugees' employment rates and earnings, but the effect was significant only in the initial years after arrival.

Integration into the labour market and making an economic contribution to the receiving society are as important to refugees as to other immigrants. Despite limitations in human capital at arrival, Vietnamese refugees who entered the country as adults achieved high levels of employment and closed initial earnings gaps with other immigrants during the 30 years after coming to Canada. Refugees who came to Canada as children out-performed their immigrant and native-born similar-age counterparts. Canada admits refugees because of a sense of moral obligation and because it belongs to a group of nations that have committed themselves to save the oppressed and vulnerable. Refugees are not expected to make economic contributions as much as economic immigrants. Nevertheless, the evidence suggests that Vietnamese refugees did not become an economic burden; rather, over time, they contributed to Canada's economy much like other immigrants who arrived in the same period.

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Table 1: Geographic distribution of Vietnamese refugees and other immigrants who arrived in 1979–80 (%)

| | Vietnamese refugees | Immigrants from other countries | Canadian- born population |
|----------------------------|------------------------|---------------------------------------|---------------------------------|
| 1981 | | | |
| Montreal | 10.0 | 12.4 | 11.6 |
| Toronto | 18.8 | 31.3 | 9.2 |
| Vancouver | 8.0 | 12.8 | 4.4 |
| Second-tier cities | 27.4 | 18.7 | 14.9 |
| Small metropolitan areas | 16.0 | 9.3 | 15.1 |
| Small urban or rural areas | 19.8 | 15.6 | 44.8 |
| 1991 | | | |
| Montreal | 11.8 | 12.3 | 11.2 |
| Toronto | 32.9 | 34.1 | 10.0 |
| Vancouver | 13.1 | 13.9 | 4.9 |
| Second-tier cities | 26.1 | 17.0 | 15.4 |
| Small metropolitan areas | 8.8 | 9.0 | 15.6 |
| Small urban or rural areas | 7.2 | 13.7 | 42.9 |
| 2001 | | | |
| Montreal | 12.5 | 10.9 | 10.8 |
| Toronto | 37.6 | 34.7 | 10.0 |
| Vancouver | 14.0 | 14.5 | 5.1 |
| Second-tier cities | 22.5 | 16.9 | 15.8 |
| Small metropolitan areas | 7.3 | 9.1 | 15.8 |
| Small urban or rural areas | 6.1 | 13.9 | 42.6 |
| 2011 | | | |
| Montreal | 13.3 | 12.2 | 11.1 |
| Toronto | 38.0 | 35.5 | 11.4 |
| Vancouver | 13.7 | 14.0 | 5.2 |
| Second-tier cities | 24.5 | 16.6 | 17.6 |
| Small metropolitan areas | 7.6 | 10.2 | 18.2 |
| Small urban or rural areas | 2.8 | 11.5 | 36.4 |

Note: The sample size for Vietnamese refugees is 7,247 in 1981, 6,728 in 1991, 6,285 in 2001, and 6,176 in 2011. For refugees from Laos and Cambodia, the sample size is 2,393 in 1981, 2,266 in 1991, 1,794 in 2001, and 1,896 in 2011. The sample size is over 28,000 in each year for other immigrants.

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 2:

Poverty rates and poverty gaps among Vietnamese refugees and other immigrants who arrived in 1979–80

| | Poverty rates | | | | Poverty gap ratios | | | |
|--|---------------|------|------|------|--------------------|-------|-------|-------|
| | 1980 | 1990 | 2000 | 2010 | 1980 | 1990 | 2000 | 2010 |
| Vietnamese refugees | | | | | | | | |
| Overall | 75.6 | 24.7 | 16.8 | 15.1 | 0.608 | 0.388 | 0.377 | 0.430 |
| Montreal | 75.3 | 35.1 | 20.1 | 18.1 | 0.576 | 0.373 | 0.423 | 0.352 |
| Toronto | 74.4 | 21.3 | 14.5 | 15.4 | 0.579 | 0.408 | 0.467 | 0.428 |
| Vancouver | 78.6 | 27.2 | 24.5 | 18.8 | 0.593 | 0.403 | 0.383 | 0.486 |
| Second-tier cities | 73.3 | 28.5 | 16.3 | 13.2 | 0.630 | 0.369 | 0.416 | 0.481 |
| Small metropolitan areas | 78.5 | 13.3 | 14.9 | 8.8 | 0.635 | 0.437 | 0.410 | 0.419 |
| Small urban or rural areas | 76.3 | 18.1 | 10.0 | 11.6 | 0.606 | 0.346 | 0.406 | 0.125 |
| Immigrants from other countries | | | | | | | | |
| Overall | 40.7 | 19.2 | 16.5 | 13.8 | 0.529 | 0.402 | 0.360 | 0.401 |
| Montreal | 53.9 | 32.8 | 28.0 | 21.2 | 0.533 | 0.429 | 0.385 | 0.393 |
| Toronto | 42.9 | 17.2 | 16.1 | 14.7 | 0.536 | 0.406 | 0.380 | 0.382 |
| Vancouver | 37.8 | 18.6 | 18.8 | 15.8 | 0.540 | 0.359 | 0.340 | 0.398 |
| Second-tier cities | 36.9 | 21.3 | 15.1 | 10.4 | 0.510 | 0.393 | 0.371 | 0.433 |
| Small metropolitan areas | 34.7 | 13.5 | 11.6 | 9.7 | 0.528 | 0.464 | 0.390 | 0.417 |
| Small urban or rural areas | 36.2 | 13.9 | 11.2 | 9.6 | 0.523 | 0.366 | 0.392 | 0.454 |
| Canadian-born | | | | | | | | |
| Overall | 18.0 | 16.0 | 15.3 | 13.4 | 0.405 | 0.403 | 0.390 | 0.425 |
| Montreal | 22.2 | 21.0 | 20.7 | 17.9 | 0.422 | 0.417 | 0.415 | 0.418 |
| Toronto | 15.5 | 13.9 | 13.8 | 15.4 | 0.426 | 0.436 | 0.437 | 0.430 |
| Vancouver | 16.3 | 17.0 | 17.3 | 17.5 | 0.420 | 0.409 | 0.437 | 0.479 |
| Second-tier cities | 18.0 | 17.6 | 16.7 | 13.5 | 0.421 | 0.415 | 0.417 | 0.440 |
| Small metropolitan areas | 16.8 | 15.0 | 15.0 | 12.9 | 0.430 | 0.413 | 0.424 | 0.420 |
| Small urban or rural areas | 18.0 | 14.7 | 13.7 | 10.8 | 0.380 | 0.380 | 0.400 | 0.408 |

Note: The poverty rates are based on Statistics Canada's LICOs (1992 base).

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 3: Human capital improvement over time among prime-age Vietnamese refugees and other immigrants who arrived in 1979–80 (%)

| | Speaking an official language | | | | High-school graduation | | | |
|--|-------------------------------|------|------|------|------------------------|------|------|------|
| | 1981 | 1991 | 2001 | 2011 | 1981 | 1991 | 2001 | 2011 |
| Vietnamese refugees | | | | | | | | |
| Overall | 75.4 | 88.4 | 88.1 | 84.0 | 38.2 | 43.1 | 45.8 | 61.2 |
| Montreal | 83.6 | 91.2 | 91.0 | 88.3 | 59.9 | 61.7 | 69.3 | 74.4 |
| Toronto | 68.8 | 86.0 | 84.9 | 80.6 | 39.9 | 41.6 | 42.3 | 59.5 |
| Vancouver | 70.3 | 87.1 | 83.6 | 80.1 | 39.7 | 41.8 | 42.0 | 60.8 |
| Second-tier cities | 69.8 | 88.7 | 90.3 | 85.8 | 34.6 | 39.1 | 45.4 | 57.8 |
| Small metropolitan areas | 82.7 | 93.4 | 94.3 | 91.1 | 37.0 | 41.0 | 42.3 | 60.2 |
| Small urban or rural areas | 83.3 | 91.1 | 95.6 | 91.4 | 31.4 | 39.2 | 36.6 | 61.7 |
| Immigrants from other countries | | | | | | | | |
| Overall | 90.4 | 95.8 | 96.1 | 95.3 | 68.8 | 74.1 | 76.1 | 82.9 |
| Montreal | 93.0 | 96.6 | 96.8 | 97.7 | 66.0 | 69.5 | 70.5 | 75.2 |
| Toronto | 88.1 | 95.0 | 95.5 | 93.7 | 68.5 | 73.2 | 75.7 | 82.2 |
| Vancouver | 87.4 | 92.8 | 93.1 | 90.4 | 69.8 | 74.2 | 74.3 | 82.4 |
| Second-tier cities | 92.0 | 96.7 | 96.2 | 97.0 | 70.2 | 76.3 | 77.9 | 85.3 |
| Small metropolitan areas | 92.1 | 97.3 | 98.6 | 97.5 | 72.2 | 76.7 | 80.5 | 86.6 |
| Small urban or rural areas | 92.2 | 98.1 | 98.5 | 99.2 | 67.6 | 75.5 | 78.0 | 87.1 |
| Similar-aged Canadian-born | | | | | | | | |
| Overall | – | – | – | – | 62.8 | 69.5 | 71.7 | 80.3 |
| Montreal | – | – | – | – | 70.6 | 73.3 | 76.3 | 81.3 |
| Toronto | – | – | – | – | 69.3 | 78.4 | 81.2 | 88.5 |
| Vancouver | – | – | – | – | 68.9 | 78.6 | 80.8 | 89.8 |
| Second-tier cities | – | – | – | – | 67.9 | 75.5 | 77.7 | 85.7 |
| Small metropolitan areas | – | – | – | – | 64.6 | 72.5 | 74.6 | 82.9 |
| Small urban or rural areas | – | – | – | – | 56.0 | 62.1 | 65.1 | 74.4 |

Note: – essentially all Canadian-born individuals speak an official language.

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 4: Employment rates and earnings of prime-age Vietnamese refugees and other immigrants who arrived in 1979–80

| | Employment rates (%) | | | | Median annual earnings (2010 constant dollars) | | | |
|--|----------------------|------|------|------|--|--------|--------|--------|
| | 1981 | 1991 | 2001 | 2011 | 1980 | 1990 | 2000 | 2010 |
| Vietnamese refugees | | | | | | | | |
| Overall | 75.1 | 75.9 | 77.6 | 64.8 | 11,900 | 30,700 | 36,600 | 37,400 |
| Montreal | 64.8 | 71.5 | 71.7 | 59.7 | 11,800 | 26,700 | 33,600 | 30,500 |
| Toronto | 79.1 | 75.4 | 78.3 | 62.3 | 13,200 | 33,900 | 39,100 | 40,100 |
| Vancouver | 81.2 | 73.5 | 74.0 | 64.3 | 12,500 | 26,700 | 29,300 | 33,000 |
| Second-tier cities | 79.1 | 77.8 | 81.8 | 68.4 | 13,200 | 30,100 | 34,300 | 38,000 |
| Small metropolitan areas | 71.7 | 79.0 | 79.2 | 73.0 | 9,500 | 29,700 | 36,600 | 39,200 |
| Small urban or rural areas | 70.0 | 79.6 | 75.4 | 69.8 | 10,600 | 26,700 | 31,500 | 34,300 |
| Immigrants from other countries | | | | | | | | |
| Overall | 69.9 | 79.5 | 78.7 | 63.3 | 17,300 | 36,100 | 39,100 | 41,000 |
| Montreal | 62.2 | 71.3 | 70.6 | 57.1 | 15,800 | 29,700 | 31,800 | 33,400 |
| Toronto | 73.2 | 80.9 | 79.6 | 63.2 | 17,200 | 39,000 | 42,700 | 43,500 |
| Vancouver | 69.1 | 80.8 | 79.5 | 65.9 | 16,300 | 35,700 | 36,600 | 40,000 |
| Second-tier cities | 75.6 | 81.3 | 81.9 | 69.8 | 19,100 | 35,700 | 36,600 | 46,000 |
| Small metropolitan areas | 66.9 | 79.6 | 79.0 | 62.6 | 17,400 | 37,100 | 42,700 | 40,400 |
| Small urban or rural areas | 64.8 | 79.8 | 78.2 | 57.6 | 18,100 | 31,800 | 36,600 | 38,300 |
| Similar-aged Canadian-born | | | | | | | | |
| Overall | 73.0 | 77.8 | 72.7 | 56.8 | 29,400 | 38,600 | 41,300 | 41,600 |
| Montreal | 71.4 | 76.3 | 72.8 | 56.5 | 31,800 | 40,100 | 42,700 | 41,600 |
| Toronto | 81.4 | 82.8 | 79.7 | 66.4 | 31,700 | 47,600 | 54,800 | 54,800 |
| Vancouver | 79.9 | 81.0 | 77.6 | 63.0 | 34,200 | 43,500 | 48,800 | 50,000 |
| Second-tier cities | 77.9 | 81.4 | 76.4 | 61.0 | 31,800 | 42,800 | 46,400 | 50,000 |
| Small metropolitan areas | 73.6 | 78.8 | 73.1 | 56.5 | 29,100 | 39,500 | 42,700 | 42,700 |
| Small urban or rural areas | 69.0 | 75.2 | 69.7 | 53.0 | 26,600 | 33,400 | 36,400 | 35,000 |

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 5: OLS regression models accounting for regional differences in employment rates and earnings among prime-aged Vietnamese refugees who arrived in 1979–80

| | Employment rates | | | | Annual earnings | | | |
|---|------------------|-----------|----------|-----------|-----------------|-----------|-----------|----------|
| | 1981 | | 1991 | | 1981 | | 1991 | |
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Intercept | 0.791*** | -1.342*** | 0.754*** | -0.674 | 9.269*** | 0.479 | 10.265*** | 2.4543 |
| Region (ref: Toronto) | | | | | | | | |
| Montreal | -0.143*** | -0.024 | -0.039 | 0.002 | -0.058 | 0.140* | -0.199*** | -0.127 |
| Vancouver | 0.021 | 0.000 | -0.019 | -0.013 | -0.066 | -0.115 | -0.271*** | -0.139** |
| Second-tier cities | 0.000 | 0.022 | 0.023 | 0.011 | 0.033 | 0.063 | -0.135*** | -0.059 |
| Small metropolitan areas | -0.075*** | -0.026 | 0.035 | 0.041 | -0.253*** | -0.019 | -0.101*** | 0.037 |
| Small urban or rural areas | -0.091*** | -0.025 | 0.042 | 0.031 | -0.115* | 0.053 | -0.216*** | -0.099 |
| Men (ref: women) | | 0.148*** | | 0.128*** | | 0.242*** | | 0.298*** |
| Age | | 0.037*** | | 0.014 | | 0.062*** | | 0.020 |
| Age squared/100 | | -0.050*** | | -0.018 | | -0.091** | | -0.032 |
| Education (Ref: university) | | | | | | | | |
| Less than high-school graduation | | 0.148*** | | 0.011 | | 0.266** | | -0.196 |
| High-school graduation | | 0.097** | | -0.036 | | 0.162 | | -0.182 |
| Some post-secondary education | | 0.088* | | -0.012 | | 0.186* | | -0.261* |
| Speak official language (ref: not) | | 0.066*** | | 0.147*** | | 0.104** | | 0.097* |
| Marital status (ref: married) | | | | | | | | |
| Single | | 0.087*** | | -0.061*** | | -0.038 | | -0.096** |
| Divorce, separated, or widowed | | 0.053 | | -0.145*** | | -0.378*** | | -0.012 |
| Percentage of own-ethnic members in a region | | 0.021*** | | 0.004 | | 0.022* | | 0.000 |
| Regional employment rates | | 0.013*** | | 0.012*** | | — | | — |
| Weeks worked | | — | | — | | 0.037*** | | 0.024*** |
| Full-time (ref: part-time) | | — | | — | | 0.320*** | | 0.321*** |

| | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|----------|-------|--------|
| Regional average earnings | | – | | – | | 0.545*** | | 0.558* |
| Sample size | 4,124 | 4,124 | 3,829 | 3,829 | 2,684 | 2,684 | 3,244 | 3,244 |
| Model R squared | 0.015 | 0.077 | 0.003 | 0.075 | 0.01 | 0.499 | 0.013 | 0.288 |

Notes: – not included. * significant at $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 6: Educational attainment and earnings among Vietnamese childhood refugees and other childhood immigrants who arrived in 1979–80

| | High-school dropout rate (%) | | University completion rate (%) | | Median annual earnings (2010 constant dollars) | |
|--|------------------------------|------|--------------------------------|------|--|--------|
| | 2001 | 2011 | 2001 | 2011 | 2000 | 2010 |
| Vietnamese refugees | | | | | | |
| Overall | 18.3 | 13.7 | 28.3 | 35.7 | 34,200 | 48,700 |
| Montreal | 8.1 | 13.4 | 42.9 | 42.4 | 36,600 | 47,300 |
| Toronto | 20.0 | 11.0 | 31.4 | 37.6 | 39,100 | 50,000 |
| Vancouver | 22.8 | 15.1 | 15.5 | 25.8 | 26,900 | 44,900 |
| Second-tier cities | 17.3 | 17.9 | 25.2 | 38.9 | 30,500 | 53,600 |
| Small metropolitan areas | 17.9 | 9.1 | 26.5 | 28.5 | 26,900 | 44,400 |
| Small urban or rural areas | 22.3 | 18.7 | 26.3 | 17.2 | 33,900 | 39,600 |
| Immigrants from other countries | | | | | | |
| Overall | 15.0 | 8.7 | 24.7 | 31.5 | 30,500 | 46,800 |
| Montreal | 12.9 | 8.9 | 23.6 | 31.5 | 25,600 | 37,600 |
| Toronto | 13.2 | 7.8 | 28.9 | 33.9 | 36,600 | 50,300 |
| Vancouver | 10.9 | 6.7 | 27.6 | 32.6 | 32,700 | 47,700 |
| Second-tier cities | 15.6 | 7.2 | 25.3 | 34.4 | 30,500 | 53,200 |
| Small metropolitan areas | 13.9 | 7.5 | 20.4 | 30.5 | 26,900 | 44,000 |
| Small urban or rural areas | 23.8 | 16.2 | 15.4 | 21.2 | 26,900 | 41,200 |
| Similar-aged Canadian-born | | | | | | |
| Overall | 18.1 | 10.3 | 18.9 | 25.6 | 28,100 | 44,300 |
| Montreal | 13.8 | 9.3 | 23.5 | 30.6 | 29,300 | 43,100 |
| Toronto | 11.8 | 6.0 | 30.9 | 39.9 | 36,600 | 53,300 |
| Vancouver | 13.6 | 6.0 | 23.9 | 33.6 | 31,800 | 48,300 |
| Second-tier cities | 15.2 | 7.9 | 23.3 | 31.7 | 29,300 | 50,500 |
| Small metropolitan areas | 15.5 | 8.3 | 19.5 | 24.7 | 26,900 | 44,000 |
| Small urban or rural areas | 24.3 | 15.1 | 11.0 | 15.2 | 24,700 | 38,300 |

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Table 7: Economic outcomes among Vietnamese senior refugees and other senior immigrants who arrived in 1979–80

| | 1981 | 1991 | 2001 | 2011 |
|--|------|------|------|------|
| Employment rate | | | | |
| Vietnamese refugees | 47.5 | 29.0 | 5.1 | 0.3 |
| Refugees from Laos and Cambodia | 26.5 | 16.9 | 2.1 | 0.0 |
| Immigrants from other countries | 33.8 | 23.9 | 6.9 | 2.9 |
| Similarly aged Canadian-born | 45.4 | 25.7 | 8.4 | 4.4 |
| The share receiving social assistance | | | | |
| Vietnamese refugees | 13.6 | 46.1 | 89.0 | 88.1 |
| Refugees from Laos and Cambodia | 11.1 | 42.7 | 88.8 | 86.3 |
| Immigrants from other countries | 3.2 | 53.8 | 81.8 | 87.4 |
| Similarly aged Canadian-born | 14.8 | 35.2 | 70.5 | 67.0 |

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.

Appendix table 1: Sample size and estimated population size of Vietnamese refugees and other immigrants who arrived in 1979–80

| | 1981 | 1991 | 2001 | 2011 |
|-------------------------------------|---------|---------|---------|---------|
| Total | | | | |
| Sample size | | | | |
| Vietnamese refugees | 7,247 | 6,728 | 6,285 | 6,176 |
| Immigrants from other countries | 34,517 | 31,516 | 29,282 | 28,212 |
| Estimated population | | | | |
| Vietnamese refugees | 36,730 | 34,650 | 33,172 | 31,235 |
| Immigrants from other countries | 174,631 | 163,343 | 152,873 | 141,698 |
| Arrived at age 17 or younger | | | | |
| Sample size | | | | |
| Vietnamese refugees | 2,646 | 2,506 | 2,225 | 2,224 |
| Immigrants from other countries | 9,633 | 884 | 7,880 | 7,988 |
| Estimated population | | | | |
| Vietnamese refugees | 12,982 | 12,742 | 11,783 | 11,498 |
| Immigrants from other countries | 48,004 | 43,948 | 41,384 | 40,663 |
| Arrived at age 18–44 | | | | |
| Sample size | | | | |
| Vietnamese refugees | 4,124 | 3,829 | 3,718 | 3,693 |
| Immigrants from other countries | 18,028 | 17,316 | 17,033 | 17,792 |
| Estimated population | | | | |
| Vietnamese refugees | 21,336 | 19,923 | 19,626 | 18,363 |
| Immigrants from other countries | 91,965 | 89,307 | 88,804 | 88,467 |
| Arrived at age 45 and over | | | | |
| Sample size | | | | |
| Vietnamese refugees | 477 | 393 | 342 | 259 |
| Immigrants from other countries | 6,856 | 5,759 | 4,369 | 2,432 |
| Estimated population | | | | |
| Vietnamese refugees | 2,412 | 1,984 | 1,763 | 1,374 |
| Immigrants from other countries | 34,662 | 30,088 | 22,685 | 12,568 |

Source: Author's calculation based on data from the 1981, 1991, and 2001 census and 2011 NHS.