The Performance of Immigrants from Mainland China and Hong Kong in the Toronto and Vancouver Labour Markets

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Abstract

This paper uses 1996 Canadian Census data to examine the performance of immigrants from mainland China and Hong Kong in Toronto and Vancouver, in terms of their earnings gap at the time of arrival in Canada and how fast their earnings catch up with those of Canadian-born individuals. A comparison with other immigrant groups is also performed. The results suggest that Chinese and Hong Kong immigrants are not easily assimilated to the Canadian labour market in both Toronto and Vancouver. In general, women take less time to assimilate than men, and the number of years to catch up is smaller if assuming different assimilation rates. Europe, U.S. and Hong Kong immigrant groups take less time to assimilate than other Asian immigrant groups in general.

I Introduction

Canada is an immigration country. Every year over two hundred thousand immigrants make Canada their new home, and a large and increasing proportion of them are immigrants from mainland China. In 2002, there were 229,091 landed immigrants, out of which 33,231 came from that country. mainland China is now the first source country of immigration, accounting for 14.5 per cent of the total in 2002[1]. In addition, more than half of those immigrants reside in Toronto and about a quarter in Vancouver. Hong Kong is another important source of Chinese ethnic origin immigrants to Canada. For most of the 1990s, Hong Kong was the first source of immigration to Canada. As in the case of mainland Chinese immigrants, the majority of the immigrants from Hong Kong reside in Toronto and Vancouver.

The main question of this paper is how these immigrants fare in the Canadian labour market. Because mainland China and Hong Kong are the two primary sources of Canadian immigrants, and since most of these immigrants reside in Toronto and Vancouver, this paper focuses on the performance of these immigrants, in comparison to immigrants from other areas and of Canadian-born individuals. Differences between immigrants coming from mainland China and Hong Kong are expected. The main reason is the background of the two groups. For example, English is one of the official languages of education in Hong Kong, so those immigrants should have better language skills than Chinese immigrants. Another example is the political system. Hong Kong follows the U.K. system, like Canada,

[1] The numbers in this sentence come from Citizenship and Immigration Statistics, http://www.cic.gc.ca/english/pub/index-2.html#statistics

but Mainland China follows the different political system. So Hong Kong immigrants are more familiar with Canadian society.

The study is based on the Microdata file of the 1996 Canadian Census data. The theoretical framework and the empirical methodology are borrowed from Bloom, Grenier, and Gunderson (1995). The main difference is that I only use the cross-sectional data in this study, so it means that cohort effects cannot be distinguished in this analysis.[2]

The empirical results provide some evidence on the following factors:

(1) The extent to which China and Hong Kong immigrants' earnings at the time of immigration fall short of the earnings of comparable Canadian-born individuals (i.e. the entry effect);

(2) The extent to which China and Hong Kong immigrants' earnings grow faster than those of the Canadian-born individuals (i.e. the assimilation effect);

(3) The number of years it takes for China and Hong Kong immigrants' earnings to catch up with those of comparable Canadian-born persons (i.e. years to equality);

(4) The degree of variation in the labour market assimilation of immigrants according to factors such as gender, country of origin and the state of the economy.

There are no published papers to my knowledge focusing on the performance of immigrants from mainland China and Hong Kong. Most of the literature has focused

[2] Actually, the assimilation effect I estimate = f (cohort effect, true assimilation effect), but I cannot distinguish cohort effect because of the limitation of cross-sectional data.

on immigration in general. In this paper, I will examine the performance of these two groups separately.

The analysis proceeds as follows. In section II, I introduce a short history of Chinese immigration in Canada. In section III, I briefly review a few articles about assimilation of immigrants. Section IV describes the data used in this paper and the variables in the regression. In section V, I introduce the empirical strategy in detail: the two stage regression model, the corresponding entry and assimilation effects, and the calculation of years to equality. In section VI, I analysis the empirical result. Section VII concludes this study.

II Background

The Chinese in Canada is an interesting book about Chinese immigrants in the Canadian labour market and the author is Peter S. Li (Li, 1998). In this book, the history of the Chinese in Canada is traced back to the nineteenth century. In the early nineteenth century, many Europeans settled in North America, and in the later half of the century, many Chinese did the same, becoming the first wave of Chinese immigration. But the difference between these two groups is that European immigrants were generally accepted into the Canadian society either as homesteaders or as workers, but Chinese immigrants were not. They were simply treated as cheap labour to fill the shortage of white workers in Canada. For example, Li gave detailed numbers about the occupations of Chinese immigrants: around 72.5 per cent of Chinese immigrants who entered Canada from 1885 to 1903 were labourers (Li, 1998, page 24).

The policy toward Chinese immigrants in Canada changed over time as well. The Canadian government passed the first anti-Chinese bill in 1885. Between 1875 and 1923, British Columbia also passed bills to restrict the civil rights of the Chinese. Finally, the federal government passed the Chinese Immigration Act in 1923, which prohibited Chinese from entering Canada for 24 years before it was repealed in 1947. During that period, the sex ratio of the Chinese community in Canada was highly distorted, because it was mainly composed of married bachelors separated from their wives and children in China.

The Chinese gained the right to vote in the first few years after the Second World War, but the volume of immigration was still small in the two decades that followed. In 1967, the Canadian government changed its immigration policy, making it possible for a large number of Chinese immigrants to enter Canada. This is the second wave of Chinese immigration.

During the 1970s, the population of persons of Chinese origin increased dramatically – from 124,600 in 1971 to 285,800 in 1981, and to over 600,000 in 1991 (Li, 1998, page 3). No doubt, immigrants in the 1970s and 1980s have played a major role in forming the Chinese community in Canada.

Li (1998) did not separate Chinese immigrants into China group and Hong Kong group. In his book, Chinese immigrants included immigrants from mainland China and Hong Kong. In the context of the recent immigration, it is important to make a distinction between these two groups. Table 1 shows the situation of immigration from these two places from 1990 to 1999. Hong Kong was the first

source of immigration from1990 to 1997, but after 1997, the number of immigrants decreased dramatically. This is due mainly to political reasons. As everyone knows, Hong Kong was going back to China in 1997. Many Hong Kong residents worried that the Chinese government would change the policy[3] towards Hong Kong, so they chose to emigrate. After 1998, mainland China became the primary source country of immigration to Canada. One of the reasons may be that many Canadian immigration agents were sent to China. There are other important differences between Chinese and Hong Kong immigrants. English is one of the official languages of education in Hong Kong, so those immigrants should have better language skills than Chinese immigrants. In addition, Hong Kong immigrants speak Cantonese and most of China mainland immigrants speak Mandarin. Those differences are such that the two groups form separate communities in Canada. For that a reason, the two immigrant groups may perform differently in Canada.

III Literature review

Most previous studies of assimilation focus on earnings as a summary of economic performance, and the objectives of these studies are the immigrant assimilation profiles. Chiswick (1978) and Borjas (1985) investigated the performance of immigrants in the U.S. labour market; Bloom, Grenier, and Gunderson (1995) and Baker and Benjamin (1994) did similar work in the Canadian labour market; Grant (1999) and Waslander (2003) are two recent additions to the Canadian literature about assimilation.

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[3] Hong Kong residents worried about the policy changes such as changes in politics and changes in economy, so there is a peak of immigration in a few years prior to 1997 (1993-1996). But after 1997, they did not find large changes in Hong Kong, so immigration from Hong Kong fell dramatically.

Chiswick (1978) found that large entry disadvantages of immigrants could be offset by rapid earnings growth. He mentioned that: "although immigrants initially earn less than the native born, their earnings rise more rapidly with U.S. market experience, and after 10 to 15 years their earnings equal, and then exceed, that of the native born." (Chiswick (1978), page 897)

In his study, Chiswick used the 5 percent questionnaire of the 1970 U.S. census data. The population under study was white men, aged 25-64 in 1970. The main contribution of Chiswick's study is his empirical methodology. He estimated a conventional earnings function, augmented by indicators of immigrant status:

$$y = X\beta + \alpha I + \gamma\, ysm + \delta\, ysm^2 + u_i \quad [4]$$

Where y is the nature logarithm of earnings; X is a vector of human capital characteristics and other control variables; I is a dummy variable coded 1 for a foreign born person, 0 for a native born person; ysm is the number of years since migration to the United States.

Chiswick's theoretical framework and empirical methodology were borrowed by many articles, and the main findings were confirmed as well. But Borjas (1985) argued that Chiswick's procedure can lead to misleading results regarding assimilation and miss important changes in the entry effect of cohorts of immigrants. Borjas (1985) reexamined the two "facts" found by Chiswick: (1) that the earnings of immigrants grow rapidly as they assimilate into the U.S. labour market; (2) this rapid growth leads to many immigrants' overtaking the earnings of the natives

[4] This was the most important contribution of Chiswick's paper. Many following papers borrow this methodology, for example, Bloom, Grenier, and Gunderson (1995) and Baker and Benjamin (1994).

within 10-15 years after immigration. The feature of the study is to control for immigrant year of arrival. The author used the 1970 and 1980 Public Use Samples of the U.S. census data and specified the data into 18 immigrant cohorts. The analysis of earnings controlling for immigrant cohorts led to a very different assimilation effect of immigrants into the U.S. labour market: the earnings of a cohort of immigrants grew at a much lower rate than that predicted by cross-section analysis; for most immigrant groups, the overtaking point happened much later in the life cycle than the point predicted by the cross-section study.

Both Baker and Benjamin (1994) and Bloom, Grenier, and Gunderson (1995) examine the economic assimilation of immigrants to Canada. They both use 1971,1981 and 1986 Canadian census data, but their empirical strategies are different.

Baker and Benjamin estimated cohort-specific assimilation rates. They found that entry earnings fell across successive immigrant cohorts, while their assimilation rate were quite small. They also found negligible evidence of assimilation: for most cohorts, one cannot reject the hypothesis that there was zero assimilation.

Bloom, Grenier, and Gunderson also painted an unhappy picture of immigrant assimilation. The basic empirical methodology they used was the immigrant earnings equation used by Chiswick (1978), augmented to allow for the cohort-specific effect stressed by Borjas (1985). They mentioned that the Canadian labour market had not been easy to assimilate recent cohorts of immigrants, given the changing nature of such immigration. For example, the 1956-60 cohort for men

is estimated to have an entry effect of –4.1 percent, and the assimilation rate is estimated as 0.25 percent per year. That cohort needs about 17 years to be assimilated. However, the 1981-85 cohort for men is estimated to have an entry effect of –34 percent and to need 137 years to catch up to the Canadian-born if they keep assimilation at the same rate! The authors also find that assimilation has been slower for more recent cohorts if considering regions of origin. They suggest that three major factors contributed to the decline in immigrant assimilation: "(1) reduced immigrant quality because of changing immigration policies; (2) increased discrimination as the composition of immigrants changed towards more visible minorities; (3) the effect of prolonged recession." (Bloom, Grenier, and Gunderson, 1995, page 1000)

But a more recent study suggests that the situation of low assimilation rate based on the data from the early 1980s did not carry over to the data of late 1980s. Grant (1999) used the 1981,1986, and 1991 census data. The population of interest is male immigrants age 16-64 who reported positive earnings and forty or more weeks worked in the reference year (full-year, full-time workers). The empirical methodology is borrowed from Baker and Benjamin (1994). The feature of the analysis is that the 1991 census provides a more complete look at the cohorts arriving in Canada over the 1980s. Her results suggest a significant evidence of immigrant assimilation. For example, over their first five years in Canada, those immigrants arriving between 1981 and 1985 experienced a 17 per cent assimilation rate. On the other hand, the assimilation rate for those arriving between 1976 and

1980 was 0 per cent over their first five years. She also finds a break in the decline in immigrant entry effect. Immigrants arriving in the late 1980s had similar entry earning to those arriving in the early 1980s. Grant argues that she cannot explain this turnaround based on the observable characteristics recorded in the census data. Instead, the improvement appears to be due to the stronger Canadian labour market of the late 1980s.

Until now, the performance of immigrants in the Canadian labour market based on the previous literature can be summarized as follow: immigrants performed badly during the early 1980s, but they did better during the late 1980s. Grant argues that she cannot explain the immigrants' performance on the basis of changes in the relative attributes of immigrants, and Bloom, Grenier, and Gunderson (1995) had mentioned that immigrants' performance may be sensitive to the business cycle. Are these two factors both important to the immigrants' performance?

Waslander (2003) examined the reasons for the decline in real earnings of new immigrants (from $25,000 on average in 1980 to $13,000 in 1995). To what extent is the decline due to changes in the attributes of Canada's immigrants, as opposed to changes in the Canadian labour market? Waslander used 1981,1986,1991, and 1996 censuses data and focused on the residents of Canada's eight largest cities. The feature of the study is its empirical methodology: he adds the local unemployment rate to the basic human capital equation. The results suggest that the earnings of both Canadian-born and new immigrants men have become more sensitive to the unemployment rate, but this does not fully account for the decline in earnings of the

new immigrants. On the other hand, the effect of major human capital attributes on the change in earnings is also strong, especially for educational attainment and work experience. Waslander mentions that part of the decline in earnings of new immigrants can be attributed to a drop in the returns to foreign education and work experience. Finally, Waslander argues that part of the decline in earnings remains unexplained in most of his results.

Unfortunately, most of the literature has focused on immigration in general. There are no published papers focusing on the performance of immigrants from mainland China and Hong Kong. In this paper, I will examine the performance of these two groups separately.

Ⅳ Data and descriptive statistics

Ⅳ-1 The data

The data used on this study are taken from the microdata file of the 1996 Canadian census. Because mainland China and Hong Kong are the two large sources of Canadian immigrants, and most of immigrants coming from these two areas reside in Toronto and Vancouver[5], my population of interest includes males and females aged 25-64 (working age) who were living in Toronto and Vancouver and who had positive wages and salaries.

Because only one census data is used to do the analysis, I cannot separately identify cohort effects. The cohort effects measure the average unobserved quality of

[5] For example, in 2002, there were 33,231 immigrants from mainland China, and 17,584 of them resided in Toronto and 7,646 of them resided in Vancouver. In 2001, there were 40,315 immigrants from mainland China, and 21,476 of them resided in Toronto and 9,535 of them resided in Vancouver. (the data comes from http://www.cic.gc.ca/english/pub/index-2.html#statistics)

particular immigrant cohort. In cross-section data, I can see that initial earning of recent immigrants falls short of earnings of Canadian born, but this difference is not present for the particular immigrant cohort, for example, immigrants who have been in Canada 10 years. So, in cross-section data, I can not identify the cohort effect. Actually, the cohort effects are so important and it is not enough to only a cross section of data for explaining what happens to immigrant earnings with additional years in Canada. The cohort effects are important because they will capture the impact of immigration policy changes such as a shift from a skills-oriented points system to a refugee or family-reunification system, which may influence the quality of immigrants. (the quality of immigrants will fall.) If the quality of immigrants has fallen with more recent immigrant cohorts, I will still get the upward sloping line in earnings VS YSM space with cross-sectional data. But the reason is not assimilation, but the lower quality of recent immigrant cohorts. The variables used in this analysis are defined in Table 2.

The variable "EDUC" is used to measure educational attainment. The original information is the total years of schooling, sometimes given as intervals. Mid-point are taken for intervals. For example, if the record of "total years of schooling" is 5-8 years, the EDUC is set to 6.5. The variable "YSM" measures years since immigration. The census information on the year of immigration in Canada is recorded in exact years between 1985 and 1995, and in intervals and exact years for pre-1985 arrivals. So I take the difference between 1996 and the exact year as "YSM" for the exact year arrival; the difference between 1996 and the mid-point of

interval as "YSM" for the interval year arrival. For instance, if an individual arrived Canada in 1990, YSM is 6; if an individual arrived Canada in 1984-1985, YSM is11.5. (1996 – 1884.5)[6]

The category "place of birth" is mainly used to identify the different groups of immigrants. I specify all immigrants into 5 groups: immigrants from mainland China (CHINA); immigrants from Hong Kong (HK); immigrants from other Asia area including the Middle East, India, South Asia, Philippines, Viet Nam, East Asia (ASIA); immigrants from the U.S. and Europe including U.K., Germany, Italy, Netherlands, Poland, Portugal, USSR, Yugoslavia, and other Europe countries; immigrants from Africa and South America including East Africa, other Africa area, Central and South America and other area outside Canada. The reference group is Canadian-born.

Marital status could also affect the earnings, especially for the females. It is defined as a dummy variable that distinguishes individuals who are married and those who are in other marital statuses. The variable "MARRIED" is set to 1 for married individuals, 0 for other marital status individuals.

Language is a very important factor that can affect earnings for immigrants. Unfortunately, there is no information about fluency in speaking Canadian official language. What I can do is to use the category "knowledge of official language" to identify individuals who reported that they can speak a Canadian official language and those who cannot. The variable "language" is set to 1 for individuals who can

[6] The reason I do not use the exact year for year of immigration is that the coefficient of YSM measures the average percent change in immigrants' earnings for each year spent in Canada, so I need the length of years since migration, not the exact year.

speak English or French or both and to 0 for those who can speak neither English nor French.

Ⅳ-2 Descriptive Statistics

The mean values of all the variables used in the regressions for Chinese immigrants, Hong Kong immigrants and the Canadian-born individuals are presented in table 3 for Toronto and in table 4 for Vancouver. We can see the difference among the three groups across a number of personal characteristics.

For men in Toronto, the mean of the earnings is $26932.7 for China immigrants and $33234.1 for Hong Kong immigrants, compared with $45076.8 for the reference group. For women, the situation is similar, the mean for Chinese immigrants and Hong Kong being lower than that for Canadian-born.

Hong Kong immigrants in Toronto have the highest educational attainment for males, with the average of total years of schooling being 14.96. For females, the means for both China immigrants and Hong Kong immigrants are lower than those of the Canadian-born. Chinese immigrants have the longest working experience years for both men and women. The average of years since migration for Chinese immigrants is a little bit longer than that of Hong Kong immigrants: 12.54 years compared with 11.58 years for males; 12.82 years compared with 11.72 years for females. The language variable is a dummy variable specifying individuals who can speak a Canadian official language (mainly English) and those who cannot. If the mean is close to 1, it means that this group is familiar with English. Hong Kong immigrants in Toronto have a value of 0.965 for males and 0.955 for females, but

Chinese immigrants just get 0.764 for males and 0.697 for females. It means that Hong Kong immigrants have a better position regarding language ability than Chinese immigrants.

For immigrants in Vancouver, the situation is similar. For both men and women, the mean of the earnings for China immigrants and Hong Kong immigrants are lower than that for Canadian-born. Hong Kong immigrants still have the higher educational attainment for men, with the average of total years of schooling being 14.14. For women, Canadian-born individuals have the highest educational attainment. As is the case in Toronto, Chinese immigrants have the longest working experience years for both men and women. The mean of the language variable still indicates that Hong Kong immigrants have better language skills than Chinese immigrants.

V Empirical framework

The theoretical framework and the empirical methodology are borrowed from Bloom, Grenier, and Gunderson (1995). However, because I use only cross-sectional data, the cohort effects are not separately identified. Two models[7] are used to analyze the entry effect and assimilation effect.

The first model:

$$y = X\beta + \alpha_1 CHINA + \alpha_2 HK + \alpha_3 ASIA + \alpha_4 EUROUS + \alpha_5 AFRSA + \delta YSM,$$

where

y=natural logarithm of earnings

[7] In this paper, I am assuming a linear profile for assimilation (YSM) either in the first or second model whereas other authors maybe use quadratics.

X= vector of standard human capital determinants of earnings and other control variables(given in table 2), with associated parameter vector β.

The second model:

$$y = X\beta + \gamma_1 CHINA + \gamma_2 HK + \gamma_3 ASIA + \gamma_4 EUROUS + \gamma_5 AFRSA + \delta_1 YSMCHINA + \delta_2 YSMHK + \delta_3 YSMASIA + \delta_4 YSMEUROUS + \delta_5 YSMAFRSA;$$

where

y and X are the same as in the first stage model;

YSMCHINA = years since migration for Chinese immigrants

= YSM * China;

YSMHK = years since migration for Hong Kong immigrants

= YSM * Hong Kong;

YSMASIA = years since migration for Asian immigrants excluding China and Hong Kong

= YSM * Asia excluding China and Hong Kong;

YSMEUROUS = years since migration for Europe and US immigrants

= YSM * Europe and US;

YSMAFRSA = years since migration for Africa and South American immigrants

= YSM * Africa and South American.

In the first model, CHINA, HK, ASIA, EUROUS and AFRSA are dummy variables for different immigrant groups. YSM represents years since migration for all immigrants, so the five immigrant groups in this model are assumed to have the

same assimilation rate. In this model, the coefficients α_i (i = 1,2,3,4,5) are the entry effects for five different immigrant cohorts, and the coefficient δ is the common assimilation effect . Years to equality, an estimate of the number of years it takes immigrant cohorts to catch up with the earnings of Canadian-born individuals, can be calculated as $-\alpha_i / \delta$, assuming $\alpha_i (i = 1,2,3,4,5) < 0$ and $\delta > 0$.

The difference between the first model and the second model is that YSM is replaced by YSMCHINA,YSMHK, YSMASIA, YSMEUROUS and YSMAFRSA. It means that the five immigrant cohorts do not have the same assimilation rate any more. Thus, the coefficients δ_i (i = 1,2,3,4,5) represent assimilation effects for five different immigrant cohort in Canadian labour market. Also, in this model, years to equality, an estimate of the number of years it takes immigrant cohorts to catch up with the earnings of Canadian-born individuals, can be calculated as $-\gamma_i / \delta_i$, assuming $\gamma_i (i = 1,2,3,4,5) < 0$ and $\delta_i (i = 1,2,3,4,5) > 0$.

Bloom, Grenier, and Gunderson (1995) explained the meanings of the entry effect and the assimilation effect in detail. They mentioned that: "the entry effect is simply the difference in earnings between immigrant cohorts and otherwise comparable Canadian-born individuals." (Page 991) We expect this difference to be negative, because new immigrants may be have a lack of information in Canadian labour market, their education in the origin country may be depreciated, their reservation wage may be lower than the Canadian-born individuals, and their poorer language skills.

Bloom, Grenier, and Gunderson (1995) also mentioned that: " the assimilation

effect is the average percentage change in immigrants' earnings for each year spent in Canada, over and above any increases associated with other labour market characteristics (such as experience) that both immigrants and Canadian-born individuals enjoy." (Page 991) We would expect the estimate of assimilation effect to be positive. Because immigrants build their language and other skills as time goes by, they acquire more information about the Canadian labour market, and they may set up their own business, and so on.

VI Empirical results

The empirical results for the entry and assimilation effects are reported in tables 5 to 9[8]. Tables 5 and 6 present the entry and assimilation effects for men in the first and second model separately. Tables 8 and 9 give the results of entry and assimilation effects for women in a similar fashion.

1. The results of the first regression for men

In the first model, all immigrant cohorts face the same assimilation rate, so the entry effects for each group can be easily identified.

Comparing Chinese immigrants and Hong Kong immigrants for men

Table 5 confirms the expected negative entry effect and positive assimilation effect for both Chinese immigrants and Hong Kong immigrants in Toronto and Vancouver. In Toronto, Chinese immigrant men have a 69 per cent earnings disadvantage on average at the time of their arrival in Canada relative to comparable Canadian-born men. After arriving, their relative earnings grow by about 1.18

[8] The original regression results of the first model are given in appendix table A1 for men and in appendix table A3 for women. The original regression results of the second model are given in appendix table A2 for men and in appendix table A4 for women.

percent per year, so it is estimated that they need about 59 years to catch up with the earnings of Canadian-born men. On the other hand, Hong Kong immigrant men have a 49 per cent earnings disadvantage on average while arriving compared with Canadian-born men. Facing the same assimilation rate of 1.18 per cent per year, they need about 41 years to catch up with the earning of Canadian-born men. It seems that there is a slow assimilation profile for both Chinese immigrants and Hong Kong immigrants, although Hong Kong immigrants have a better performance.

For the two immigrant groups in Vancouver, I still get the expected negative entry effect and positive assimilation effect. The China cohort has a 66 per cent earnings disadvantage at the time of arrival in Canada relative comparable Canadian-born men and the Hong Kong cohort get a 59 per cent earnings disadvantage. Their earnings grow at the same rate of 1.13 per year, so it would also take them a long time to catch up with the earnings of Canadian-born men as well. Chinese immigrant men need about 57 years to catch up with the earnings of Canadian-born men; Hong Kong immigrant men also need about 53 years to catch up with the earnings of Canadian-born men. The picture for the two immigrant groups in Vancouver is fairly similar to that in Toronto. The assimilation profile is still not very good, and Hong Kong immigrants perform relatively better than Chinese immigrants.

The existence of large negative entry effects and slow assimilation performance for the two immigrant groups may result from the prolonged recession in the 1980s

and early 1990s even though these affected everyone, not just immigrants[9]. The existence of a relatively better performance for Hong Kong immigrants may be due to some unobserved factors[10] related to the immigrant groups themselves, like human capital characteristics affecting the earnings of immigrants. We note that Hong Kong immigrants have a higher educational attainment (mean of 14.96 years) than Chinese immigrants (mean of 13.08 years) and better language skills (proportion speaking Canadian official language is 0.965 relative to 0.746 for the Chinese immigrants)

Comparing with other immigrant groups for men

Table 5 also presents the entry and assimilation effects for the other three immigrant groups: immigrants from Asia other than China and Hong Kong, immigrants from Europe and the United States, and immigrants from Africa and South America. First of all, I get the expected negative entry effect and positive assimilation effect for all three groups in both Toronto and Vancouver. In Toronto, the negative entry effects are much stronger for immigrants from China and other Asia area than for immigrants from Europe and the United states, -69.21 for China cohort and –61.07 for other Asia area cohort compared with –38.87 for Europe and the United States cohort. If they face the same rate of assimilation (1.18 per cent per year), years to equality is about 33 years for Europe and the U.S. immigrants, 59 years for Chinese immigrants and 52 years to other Asia area immigrants. In

[9] The recession reduced absorptive capacity of the labour market, especially for less skilled groups. However, recession cannot be the full explanation about the existence of large negative entry effects and slow assimilation performance.

[10] For example, Hong Kong society and Canadian society are a little bit similar, so Hong Kong immigrants are more familiar with Canadian labour market than mainland China immigrants. Unfortunately, this ability is unobservable other than through a Hong Kong dummy.

Vancouver, the situation is a little bit different. The negative entry effects are much stronger for immigrants from all Asia areas including China and Hong Kong than immigrants from Europe and the U.S., -66.77 for china cohort, -59.59 for Hong Kong cohort and –58.11 for Other Asia area cohort compared with –38.06 for Europe and the U.S. cohort. The same assimilation rate (1.13 per cent per year) means that immigrants from Europe and the U.S. will get a faster assimilation profile as well.

2. The results of the second regression for men

In the second model, I assume that different cohorts face different assimilation effects, so that a large entry effect can be compensated by a faster assimilation.

Comparing China immigrants and Hong Kong immigrants for men

Table 6 confirms the expected negative entry effects and positive assimilation effects as well. For the immigrants in Toronto, those from China get 73 per cent disadvantage on average when they arrive in Canada relative to comparable Canadian-born men, and those from Hong Kong get 55 per cent. We would expect Chinese immigrants to get a relatively larger assimilation rate than Hong Kong immigrants to compensate the large negative entry effect. However, the assimilation rate is 1.46 per cent per year for Chinese immigrants and 1.72 per cent per year for Hong Kong immigrants. Facing these two different assimilation rates, Chinese immigrants need nearly 50 years to catch up with the earnings of Canadian-born men and Hong Kong immigrants just need about 32 years to catch up. Those numbers are slightly lower than those in Table 5 when the assimilation effect was the

same for all immigrants. For the immigrants in Vancouver, those from Hong Kong get a stronger negative entry effect than those for China (-67.49 for Chinese immigrants compared with –75.82 for Hong Kong immigrants). With the assimilation rate of 1.14 per cent per year for Chinese immigrants and 2.41 per cent per year for Hong Kong immigrants, Chinese immigrants need about 59 years to catch up and Hong Kong immigrants need about 31 years to catch up. While the entry and assimilation effects differ, the numbers of years to catch up are similar to those in Toronto.

Comparing with other immigrant cohorts

Table 6 also confirms the expected negative entry effects and positive assimilation effects for the other three immigrant groups in both Toronto and Vancouver. In Toronto, immigrants from Asia excluding China and Hong Kong get the strongest negative entry effect (-73.69 per cent), but it also gets the highest assimilation rate (2.21 per cent per year). Immigrants from Europe and the U.S. with the smallest entry effect in absolute vale (-27.57 per cent) have a very small assimilation effect (0.73 per cent per year) as well. The results for Vancouver are similar to those for Toronto, with one exception: Hong Kong immigrants get the strongest negative entry effect (-75.82 per cent). The imprecise estimates maybe due to the relatively small sample sizes for the different groups, especially for China and Hong Kong groups (832 observations for China group and 481 observations for Hong Kong group). Generally speaking, we can find a compensation of entry and assimilation effects among the five immigrant groups in the two large cities

compared with the results in the first stage model. The scope of years to equality is relatively smaller in this model than those in the first stage model except EUROUS and CHINA in Vancouver. Table 7 shows a comparison of years to equality in the two models.

3. The results of the first regression for women

The picture for women is fairly similar to that for men in the first model. Facing the same assimilation rate, all immigrant groups get the expected negative entry effects in both Toronto and Vancouver. In Toronto, Chinese immigrants have a –48.96 per cent earnings disadvantage and Hong Kong immigrants has a –35.70 per cent earnings disadvantage compared with Canadian-born counterpart. They all face a catch-up rate of 1.32 per cent per year, so that around 37 years for Chinese immigrants and 27 years for Hong Kong immigrants are needed to catch up with the Canadian-born women. Comparing with the results for men, the results for women indicate a pattern of lower wages at entry and more rapid assimilation for China and Hong Kong cohorts, although the catch-up years for both groups still exceed 25 years. If comparing the results of these two groups with the other three groups, the picture is similar with that for men. One exception is that Hong Kong immigrants have the smallest entry effect in absolute value.

In Vancouver, the results for women still indicate a picture of low wages at entry and a little bit more rapid assimilation (1.15 per cent per year) compared to the results for men. But there are a few surprises. Hong Kong immigrants get the largest entry effect in absolute vale (-42.30 per cent) and Africa and South America

immigrants get the smallest entry effect in absolute vale (-27.16 per cent). These estimates are somewhat imprecise, and the main reason may be the relatively small sample sizes for the two immigrant groups (479 observations for Hong Kong sample and 513 observations for Africa and South America sample).

4. The results of the second regression for women

The second model for women indicates a pattern of higher entry wages relative to Canadian-born for China and Hong Kong immigrants in the two big cities compared with the results for men. In Toronto, Chinese immigrants have a 58.03 per cent earnings disadvantage on average at entry in Toronto (compared with 72.68 per cent for men), and Hong Kong immigrants have a 41.16 per cent earnings disadvantage on average (compared with 55.09 per cent for men). Similarly to men, Europe and the U.S. immigrants also get the lowest entry effect (-35.42) in absolute value compared with the other four immigrant cohorts, but this number is higher than that for men (-27.57) in absolute value. The results also indicate a pattern of higher assimilation rate for China and Hong Kong immigrants compared to men. The earnings for the China immigrants grow by 2.02 per cent per year (compared with 1.46 per cent per year for men), and 1.79 per cent per year for Hong Kong immigrants (compared with 1.72 per cent per year for men). For the other immigrant groups, the assimilation effects are almost equal or higher than those for men. Because of compensation due to the different assimilation effects, years to equality are all lower than those in the first model for women except for the Europe and the U.S. immigrants. Further, with higher entry wages and higher assimilation effects,

the catch-up years for women are all smaller than those for men for all immigrant groups. In Vancouver, the situation is similar to that in Toronto. One exception is the performance of Africa and South America immigrants. The reason is the same as that in the first stage model for women. Table 10 shows a comparison of years to equality in the two models for women. We can also find a compensation of entry and assimilation effects among the five immigrant groups in two large cities compared with the results in the first stage model. The scope of years to equality is relatively smaller in this model than those in the first model except EUROUS and AFRSA in Vancouver.

Ⅶ Conclusion

This paper has examined the performance of Chinese immigrants and Hong Kong immigrants in Toronto and Vancouver, in terms of their earnings at the time of arrival in Canada compared with Canadian-born individuals and how fast their earnings catch up with those of Canadian-born individuals. These two groups are compared to three other immigrant groups (Asia excluding China and Hong Kong, Europe and the U.S. and Africa and South America).

The study in this paper is based on a set of cross-sectional data from the 1996 Canadian Census. The findings of this study are the following:

1. China and Hong Kong immigrant men are not easily assimilated to the Canadian-labour market in Toronto and Vancouver. In Toronto, if they face the same assimilation rate at 1.18 per cent per year (in the first model), Chinese immigrants need around 59 years to catch up with the earnings of Canadian-born

men and Hong Kong immigrants need around 41 catch-up years. If they face the different assimilation rate (in the second model), there is a little bit of compensation, Chinese immigrants need about 50 catch-up years and Hong Kong immigrants need about 32 catch-up years. Generally speaking, Hong Kong immigrants have a better performance than Chinese immigrants. The results are what I expect. The existence of a relatively better performance for Hong Kong immigrants may be due to some unobserved factors[11] related to the immigrant groups themselves after controlling for some human characteristics, like education, language, etc. The picture in Vancouver is similar to that in Toronto.

2. The assimilation profile looks better for women, but they still take a long time to assimilate to the Canadian labour market in the two large cities. In Toronto, if they face the same assimilation rate at 1.32 per cent per year (in the first model), Chinese immigrants need around 37 years to catch up with the earnings of Canadian-born women and Hong Kong immigrants need around 27 catch-up years. If they face different assimilation rates (in the second model), there is a little bit of compensation. Chinese immigrants need about 28 catch-up years and Hong Kong immigrants need about 23 catch-up years. Again, Hong Kong immigrants have a better performance. In Vancouver, the situation is different. Chinese immigrants have a slightly better performance. They need around 37 catch-up years compared with around 39 years for Hong Kong immigrants if they face the same assimilation rate. If they face a different assimilation rate (in

[11] For example, Hong Kong society and Canadian society are a little bit similar, so Hong Kong immigrants are more familiar with Canadian labour market than mainland China immigrants. Unfortunately, this ability is unobservable.

the second model), China group needs about 27 catch-up years and Hong Kong cohort needs about 30 catch-up years.

3. Comparing with the results for the other three immigrant groups, the result is clear. Immigrants from Europe and the U.S. or Hong Kong tend to have the best performance, and immigrants from Asia area excluding Hong Kong tend to have the worse performance. One exception, however, is that Africa and South America immigrants have the best assimilation profile for women in Vancouver.

The economic interpretation of immigrant behaviour in the Canadian labour market is complicated. In this study, all immigrant groups face the same labour market condition, so the different behaviours for different groups are just due to the different human capital characteristics. In this analysis, some imprecise results for women in Vancouver may be due to the relatively small sample size. In further studies, the earnings profile of successive cohorts over their working lives should be examined.

Appendix

Table A1

Regression results, the first model, men

	Toronto		Vancouver	
Variable	Parameter estimates	t- value	Parameter estimates	t- value
CONSTANT	9.200	182.26	9.2276	114.60
EDUC	0.0556	28.94	0.0539	16.95
EXP	0.0344	18.01	0.0417	13.68
EXPSQ	-0.00052	-13.38	-0.00066	-10.46
MARRIED	0.2347	18.02	0.2419	12.52
WKS0113	-2.0214	-66.66	-1.9704	-45.27
WKS1426	-1.0179	-43.84	-0.9729	-27.90
WKS2739	-0.6082	-25.78	-0.5755	-16.85
WKS4048	-0.1758	-10.02	-0.1724	-7.19
HRS0119	-0.5570	-16.08	-0.3967	-8.28
HRS2029	-0.4617	-12.99	-0.4050	-8.28
HRS3039	-0.0598	-3.50	-0.0904	-3.69
HRS4549	0.0857	4.47	0.0673	2.21
CHINA	-0.6921	-16.85	-0.6677	-13.37
HK	-0.4898	-13.80	-0.5958	-13.50
ASIA	-0.6107	-30.74	-0.5811	-18.21
EUROUS	-0.3887	-16.34	-0.3806	-9.59
AFRSA	-0.4993	-23.15	-0.4598	-10.07
YSM	0.0118	15.33	0.0113	8.92
LANGUAGE	0.0402	0.98	-0.0674	-1.04
Adjusted R^2	0.3339		0.3315	
N	24769		10751	

Table A2

Regression results, the second model, men

	Toronto		Vancouver	
Variable	Parameter estimates	t- value	Parameter estimates	t- value
CONSTANT	9.2135	182.44	9.2408	114.32
EDUC	0.0544	28.25	0.0535	16.82
EXP	0.0339	17.71	0.0418	13.69
EXPSQ	-0.00051	-13.10	-0.00066	-10.41
MARRIED	0.2361	18.15	0.2436	12.62
WKS0113	-2.0127	-66.41	-1.9588	-44.99
WKS1426	-1.0128	-43.66	-0.9684	-27.79
WKS2739	-0.6056	-25.70	-0.5750	-16.85
WKS4048	-0.1733	-9.90	-0.1706	-7.12
HRS0119	-0.5537	-16.01	-0.3991	-8.34
HRS2029	-0.4620	-13.02	-0.4029	-8.24
HRS3039	-0.0607	-3.56	-0.0895	-3.65
HRS4549	0.0844	4.41	0.0690	2.27
CHINA	-0.7268	-12.20	-0.6749	-9.63
HK	-0.5509	-9.62	-0.7582	-11.61
ASIA	-0.7369	-26.16	-0.6595	-14.73
EUROUS	-0.2757	-9.79	-0.2405	-4.78
AFRSA	-0.5709	-17.77	-0.5411	-6.76
YSMCHINA	0.0146	4.20	0.0114	3.15
YSMHK	0.0172	4.33	0.0241	5.97
YSMASIA	0.0221	12.24	0.0170	6.41
YSMEUROUS	0.0073	7.45	0.0057	3.24
YSMAFRSA	0.0164	9.49	0.0160	3.92
LANGUAGE	0.0485	1.18	-0.0790	-1.20
Adjusted R^2	0.3357		0.3329	
N	24769		10751	

Table A3

Regression results, the first model, women

	Toronto		Vancouver	
Variable	Parameter estimates	t- value	Parameter estimates	t- value
CONSTANT	9.0219	162.69	8.7529	104.90
EDUC	0.0648	28.83	0.0750	20.84
EXP	0.0256	12.54	0.0257	8.13
EXPSQ	-0.00043	-10.05	-0.00038	-5.66
MARRIED	0.0651	5.06	0.0309	1.60
WKS0113	-2.0710	-76.28	-1.8808	-45.92
WKS1426	-0.9675	-42.60	-0.9355	-29.39
WKS2739	-0.5661	-23.25	-0.5384	-15.69
WKS4048	-0.2063	-11.44	-0.1619	-6.49
HRS0119	-0.6787	-28.60	-0.6183	-19.08
HRS2029	-0.4294	-18.63	-0.3294	-10.62
HRS3039	0.0258	1.77	0.0307	1.39
HRS4549	0.1924	7.49	0.1877	4.61
CHINA	-0.4896	-10.89	-0.4230	-7.91
HK	-0.3570	-9.93	-0.4504	-9.88
ASIA	-0.4911	-22.18	-0.4428	-13.11
EUROUS	-0.4403	-16.97	-0.4142	-9.43
AFRSA	-0.4689	-20.18	-0.2716	-5.66
YSM	0.0132	15.60	0.0115	8.14
LANGUAGE	0.0287	0.65	0.0803	1.27
Adjusted R^2	0.3498		0.3375	
N	23080		9946	

Table A4

Regression results, the second model, women

	Toronto		Vancouver	
Variable	Parameter estimates	t- value	Parameter estimates	t- value
CONSTANT	9.0428	162.41	8.7714	104.85
EDUC	0.0637	28.21	0.0749	20.78
EXP	0.0252	12.35	0.0260	8.22
EXPSQ	-0.00043	-9.90	-0.00039	-5.77
MARRIED	0.0639	4.96	0.0290	1.51
WKS0113	-2.0657	-76.07	-1.8734	-45.71
WKS1426	-0.9650	-42.50	-0.9338	-29.33
WKS2739	-0.5646	-23.20	-0.5365	-15.64
WKS4048	-0.2054	-11.40	-0.1609	-6.46
HRS0119	-0.6785	-28.61	-0.6184	-19.08
HRS2029	-0.4292	-18.63	-0.3308	-10.67
HRS3039	-0.0244	-1.67	0.0305	1.39
HRS4549	0.1927	7.51	0.1879	4.61
CHINA	-0.5803	-8.47	-0.5374	-7.21
HK	-0.4116	-7.02	-0.5188	-7.67
ASIA	-0.5709	-18.01	-0.5047	-10.77
EUROUS	-0.3542	-11.34	-0.3160	-5.51
AFRSA	-0.5186	-14.90	-0.1776	-2.19
YSMCHINA	0.0202	5.00	0.0196	4.81
YSMHK	0.0179	4.42	0.0173	3.82
YSMASIA	0.0196	9.75	0.0163	5.62
YSMEUROUS	0.0097	8.80	0.0076	3.69
YSMAFRSA	0.0162	8.99	0.0162	1.56
LANGUAGE	0.0285	0.64	0.0619	0.98
Adjusted R^2	0.3505		0.3381	
N	23080		9946	

Table 1 China and Hong Kong immigration, 1990-1999

Country		China	Hong Kong
1990	Number of immigrants	7,989	29,261
	Percent of total immigrants	3.7	13.7
	Source country ranking	8	1
1991	Number of immigrants	13,915	22,340
	Percent of total immigrants	6.5	9.7
	Source country ranking	3	1
1992	Number of immigrants	10,400	38,720
	Percent of total immigrants	4.1	15.4
	Source country ranking	6	1
1993	Number of immigrants	9,466	36,574
	Percent of total immigrants	3.7	14.3
	Source country ranking	5	1
1994	Number of immigrants	12,486	44,169
	Percent of total immigrants	5.6	19.7
	Source country ranking	4	1
1995	Number of immigrants	13,291	31,746
	Percent of total immigrants	6.3	14.9
	Source country ranking	4	1
1996	Number of immigrants	17,516	29,966
	Percent of total immigrants	7.8	13.3
	Source country ranking	3	1
1997	Number of immigrants	18,530	22,242
	Percent of total immigrants	8.58	10.30
	Source country ranking	3	1
1998	Number of immigrants	19,749	8,083
	Percent of total immigrants	11.34	4.64
	Source country ranking	1	4
1999	Number of immigrants	29,095	3,664
	Percent of total immigrants	15.33	1.93
	Source country ranking	1	13

Data source: Citizenship and Immigration Canada, website: http://www.cic.gc.ca/

Table2 Definition of the dependent and independent variables in regression

LNWAGE	Logarithm of wages and salaries in 1995
EDUC	Education in years
EXP	Work experience in years (Age-Education-6)
EXPSQ	Experience squared
MARRIED	Dummy variable for marital status
WKS0113	Dummy variables for weeks worked during 1995
WKS1426	(reference: 49-52 weeks)
WKS2739	
WKS4048	
HRS0119	Dummy variables for hours per week
HRS2029	(reference: 40-44 hours)
HRS3039	
HRS4549	
CHINA	Dummy variable for individuals born in China mainland
HK	Dummy variable for individuals born in Hong Kong
ASIA	Dummy variable for individuals born in Asia areas excluding China and Hong Kong
EUROUS	Dummy variable for individuals born in Europe and the U.S.
AFRSA	Dummy variable for individuals born in Africa and South America
YSM	Years since immigration (for immigrants)
YSMCHIA	The interaction of YSM and CHINA
YSMHK	The interaction of YSM and HK
YSMASIA	The interaction of YSM and ASIA
YSMEUROUS	The interaction of YSM and EUROUS
YSMAFRSA	The interaction of YSM and AFRSA
LANGUAGE	Dummy variable for individuals who can speak a Canadian official language

Table 3 Descriptive Statistics (mean and standard deviation in parentheses): Toronto

	Men			Women		
Variable	China	Hong Kong	Canadian-born	China	Hong Kong	Canadian-born
WAGE	26932.7 (22629.1)	33234.1 (23645.5)	45076.8 (32364.2)	20523.0 (16519.6)	25812.2 (18108.4)	31171.8 (20146.6)
EDUC	13.08 (3.992)	14.96 (2.603)	14.09 (2.798)	12.46 (4.181)	14.08 (2.928)	14.28 (2.563)
EXP	24.55 (11.71)	17.94 (9.021)	18.84 (10.68)	24.34 (11.59)	18.80 (8.600)	18.64 (10.74)
EXPSQ	739.4 (644.1)	403.2 (382.9)	469.1 (493.9)	726.4 (642.2)	427.3 (376.9)	462.6 (483.9)
MARRIED	0.838 (0.369)	0.720 (0.449)	0.662 (0.473)	0.813 (0.391)	0.701 (0.458)	0.655 (0.475)
WKS0113	0.039 (0.195)	0.057 (0.233)	0.028 (0.164)	0.086 (0.280)	0.067 (0.251)	0.044 (0.205)
WKS1426	0.089 (0.284)	0.080 (0.272)	0.051 (0.220)	0.102 (0.303)	0.079 (0.269)	0.068 (0.251)
WKS2739	0.096 (0.295)	0.038 (0.191)	0.051 (0.220)	0.065 (0.247)	0.066 (0.248)	0.061 (0.240)
WKS4048	0.128 (0.334)	0.133 (0.340)	0.096 (0.294)	0.153 (0.360)	0.128 (0.334)	0.111 (0.314)
HRS0119	0.021 (0.143)	0.030 (0.171)	0.022 (0.148)	0.065 (0.247)	0.041 (0.198)	0.073 (0.260)
HRS2029	0.023 (0.149)	0.036 (0.187)	0.024 (0.155)	0.039 (0.193)	0.067 (0.251)	0.079 (0.269)
HRS3039	0.107 (0.310)	0.151 (0.359)	0.122 (0.327)	0.155 (0.362)	0.233 (0.423)	0.235 (0.424)
HRS4549	0.073 (0.261)	0.098 (0.298)	0.097 (0.296)	0.043 (0.203)	0.059 (0.236)	0.069 (0.253)
YSM	12.54 (10.93)	11.58 (8.407)		12.82 (10.18)	11.72 (8.260)	
LANGUAGE	0.746 (0.436)	0.965 (0.183)	0.999 (0.025)	0.697 (0.460)	0.955 (0.207)	0.999 (0.018)
N	531	661	12409	491	713	11917

Data source: the 1996 Canadian census data

Table 4 Descriptive Statistics (mean and standard deviation in parentheses):

Vancouver

	Men			Women		
Variable	China	Hong Kong	Canadian-born	China	Hong Kong	Canadian-born
WAGE	25655.8 (21962.9)	29366.3 (23050.0)	42195.6 (28949.8)	17735.1 (14633.6)	21570.1 (16638.7)	28111.5 (18411.9)
EDUC	12.23 (4.159)	14.14 (3.072)	13.90 (2.637)	11.72 (4.113)	13.51 (3.162)	13.91 (2.410)
EXP	25.84 (12.16)	20.23 (10.00)	19.70 (10.42)	24.82 (12.22)	19.17 (9.614)	19.75 (10.41)
EXPSQ	815.07 (671.62)	509.21 (454.61)	496.49 (479.66)	765.02 (674.94)	459.89 (446.25)	498.66 (470.35)
MARRIED	0.859 (0.349)	0.780 (0.415)	0.639 (0.480)	0.791 (0.407)	0.699 (0.459)	0.634 (0.482)
WKS0113	0.053 (0.224)	0.054 (0.226)	0.034 (0.180)	0.079 (0.271)	0.073 (0.261)	0.046 (0.210)
WKS1426	0.083 (0.277)	0.069 (0.253)	0.057 (0.232)	0.108 (0.311)	0.088 (0.283)	0.079 (0.270)
WKS2739	0.051 (0.220)	0.064 (0.246)	0.062 (0.240)	0.087 (0.281)	0.063 (0.243)	0.072 (0.259)
WKS4048	0.188 (0.391)	0.175 (0.380)	0.135 (0.341)	0.183 (0.387)	0.196 (0.398)	0.146 (0.353)
HRS0119	0.035 (0.183)	0.046 (0.209)	0.029 (0.168)	0.079 (0.271)	0.063 (0.243)	0.094 (0.292)
HRS2029	0.023 (0.150)	0.031 (0.174)	0.028 (0.164)	0.084 (0.278)	0.081 (0.274)	0.104 (0.306)
HRS3039	0.083 (0.277)	0.129 (0.335)	0.143 (0.350)	0.127 (0.334)	0.182 (0.386)	0.266 (0.442)
HRS4549	0.095 (0.293)	0.062 (0.242)	0.087 (0.282)	0.058 (0.233)	0.084 (0.277)	0.053 (0.224)
YSM	14.01 (11.79)	12.58 (9.782)		13.46 (10.85)	11.62 (8.942)	
LANGUAGE	0.733 (0.442)	0.948 (0.222)	1.000 (0.000)	0.678 (0.468)	0.939 (0.239)	0.999 (0.018)
N	432	481	6543	416	479	6076

Data source: the 1996 Canadian census data

Table 5

Entry and assimilation effects in the first model, **men**

Effect (estimated coefficient)	Toronto	Years to Equality ($-\alpha_i/\delta$)	Vancouver	Years to equality ($-\alpha_i/\delta$)
Entry effect (α_i*100 i=1,2,3,4,5)				
CHINA	-69.21	58.7	-66.77	56.6
	(-16.85)		(-13.37)	
HK	-48.98	41.5	-59.58	52.7
	(-13.80)		(-13.50)	
ASIA	-61.07	51.8	-58.11	51.4
	(-30.74)		(-18.21)	
EUROUS	-38.87	32.9	-38.06	33.7
	(-16.34)		(-9.59)	
AFRSA	-49.93	42.3	-45.98	40.7
	(-23.15)		(-10.07)	
Assimilation effect(δ)				
YSM	1.18		1.13	
	(15.33)		(8.92)	

NOTES:
Coefficients estimated from $y = X\beta + \alpha_1 CHINA + \alpha_2 HK + \alpha_3 ASIA + \alpha_4 EUROUS + \alpha_5 AFRSA + \delta YSM$, where y is the log of earnings, X is human capital and other control variables, CHINA, HK, ASIA, EUROUS and AFRSA are dummy variables for different immigrant cohorts, YSM is years since migration. The figures in parentheses are the t-statistics.

Table 6

Entry and assimilation effects in the second stage model, **men**

Effect (estimated coefficient)	Toronto	Years to Equality ($-\gamma_i/\delta_i$)	Vancouver	Years to equality ($-\gamma_i/\delta_i$)
Entry effect (γ_i*100 i=1,2,3,4,5)				
CHINA	-72.68		-67.49	
	(-12.20)		(-9.63)	
HK	-55.09		-75.82	
	(-9.62)		(-11.61)	
ASIA	-73.69		-65.95	
	(-26.16)		(-14.73)	
EUROUS	-27.57		-24.05	
	(-9.79)		(-4.78)	
AFRSA	-57.09		-54.11	
	(-17.77)		(-6.76)	
Assimilation effect (δ_i*100 i=1,2,3,4,5)				
YSMCHINA	1.46	49.8	1.14	59.2
	(4.20)		(3.15)	
YSMHK	1.72	32.0	2.41	31.5
	(4.33)		(5.97)	
YSMASIA	2.21	33.3	1.70	38.8
	(12.24)		(6.41)	
YSMEUROUS	0.73	37.8	0.57	42.2
	(7.45)		(3.24)	
YSMAFRSA	1.64	34.8	1.60	33.8
	(9.49)		(3.92)	

NOTES:

Coefficients estimated from $y = X\beta + \gamma_1 CHINA + \gamma_2 HK + \gamma_3 ASIA + \gamma_4 EUROUS + \gamma_5 AFRSA + \delta_1 YSMCHINA + \delta_2 YSMHK + \delta_3 YSMASIA + \delta_4 YSMEUROUS + \delta_5 YSMAFRSA$, where y is the log of earnings, X is human capital and other control variables, CHINA, HK, ASIA, EUROUS and AFRSA are dummy variables for different immigrant cohorts, YSMCHINA,YSMHK,YSMASIA,YSMEUROUS and YSMAFRSA represent years since migration for different cohorts separately . The figures in parentheses are the t-statistics.

Table 7

Years to equality, **men**				
	Toronto		Vancouver	
	The 1st stage model	The 2nd stage model	The 1st stage model	The 2nd stage model
CHINA	58.7	49.8	56.6	59.2
HK	41.5	32.0	52.7	31.5
ASIA	51.8	33.3	51.4	38.8
EUROUS	32.9	37.8	33.7	42.2
AFRSA	42.3	34.8	40.7	33.8

Data source: Table 5 and Table 6.

Table 8

Entry and assimilation effects in the first stage model, **women**

Effect (estimated coefficient)	Toronto	Years to Equality ($-\alpha_i / \delta$)	Vancouver	Years to equality ($-\alpha_i / \delta$)
Entry effect (α_i*100 i=1,2,3,4,5)				
CHINA	-48.96	37.1	-42.30	36.8
	(-10.89)		(-7.91)	
HK	-35.70	27.0	-45.04	39.2
	(-9.93)		(-9.88)	
ASIA	-49.11	37.2	-44.28	38.5
	(-22.18)		(-13.11)	
EUROUS	-44.03	33.4	-41.42	36.0
	(-16.97)		(-9.43)	
AFRSA	-46.89	35.5	-27.16	23.6
	(-20.18)		(-5.66)	
Assimilation effect (δ)				
YSM	1.32		1.15	
	(15.60)		(8.14)	

NOTES:
Coefficients estimated from $y = X\beta + \alpha_1 CHINA + \alpha_2 HK + \alpha_3 ASIA + \alpha_4 EUROUS + \alpha_5 AFRSA + \delta YSM$, where y is the log of earnings, X is human capital and other control variables, CHINA, HK, ASIA, EUROUS and AFRSA are dummy variables for different immigrant cohorts, YSM is years since migration. The figures in parentheses are the t-statistics.

Table 9

Entry and assimilation effects in the second stage model, **women**

Effect (estimated coefficient)	Toronto	Years to Equality ($-\gamma_i/\delta_i$)	Vancouver	Years to equality ($-\gamma_i/\delta_i$)
Entry effect (γ_i*100 i=1,2,3,4,5)				
CHINA	-58.03		-53.74	
	(-8.47)		(-7.21)	
HK	-41.16		-51.88	
	(-7.02)		(-7.67)	
ASIA	-57.09		-50.47	
	(-18.01)		(-10.77)	
EUROUS	-35.42		-31.60	
	(-11.34)		(-5.51)	
AFRSA	-51.86		-17.76	
	(-14.09)		(-2.19)	
Assimilation effect (δ_i*100 i=1,2,3,4,5)				
YSMCHINA	2.02	28.7	1.96	27.4
	(5.00)		(4.81)	
YSMHK	1.79	23.0	1.73	30.0
	(4.42)		(3.82)	
YSMASIA	1.96	29.1	1.63	31.0
	(9.75)		(5.62)	
YSMEUROUS	0.97	36.5	0.76	41.6
	(8.80)		(3.69)	
YSMAFRSA	1.62	32.0	0.62	28.6
	(8.99)		(1.56)	

NOTES:

Coefficients estimated from $y = X\beta + \gamma_1 CHINA + \gamma_2 HK + \gamma_3 ASIA + \gamma_4 EUROUS + \gamma_5 AFRSA + \delta_1 YSMCHINA + \delta_2 YSMHK + \delta_3 YSMASIA + \delta_4 YSMEUROUS + \delta_5 YSMAFRSA$, where y is the log of earnings, X is human capital and other control variables, CHINA, HK, ASIA, EUROUS and AFRSA are dummy variables for different immigrant cohorts, YSMCHINA,YSMHK,YSMASIA,YSMEUROUS and YSMAFRSA represent years since migration for different cohorts separately . The figures in parentheses are the t-statistics.

Table 10

Years to equality, **women**				
	Toronto		Vancouver	
	The 1st stage model	The 2nd stage model	The 1st stage model	The 2nd stage model
CHINA	37.1	28.7	36.8	27.4
HK	27.0	23.0	39.2	30.0
ASIA	37.2	29.1	38.5	31.0
EUROUS	33.4	36.5	36.0	41.6
AFRSA	35.5	32.0	23.6	28.6

Data source: Table 8 and Table 9.

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