

**Visible Minority Wage Gaps for Highly Educated Immigrant and
Canadian-born Workers with Canadian Degrees**

By Shengyi Yu

(6360172)

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Supervisor: Professor Gilles Grenier

ECO 6999

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Abstract

Canada is an important immigration country and more and more residents belong to different visible minority groups. This paper uses the 2011 National Household Survey to investigate the wage gap between visible minority groups and non-visible minority workers, focusing on highly educated immigrants and non-immigrants. All individuals in the sample have at least a Canadian bachelor degree. The visible minority workers are divided into the categories of Black, Chinese, South Asian, and Rest of the World. The paper finds that on average, immigrants earn less than non-immigrants. Comparing the genders, the visible minority wage gaps are smaller for females than for males. Among the visible minority groups, Black males are the group that suffers the most from wage disadvantage, regardless of their immigration status and the number of years since immigration. For the other visible minority groups and for the females, there are greater wage disadvantages among immigrants than among non-immigrants.

1. Introduction

Canada is a major immigration country and immigrants are playing an increasingly important role in the society. According to the 2016 Census of Canada, there are 7.5 million immigrants in Canada, which means that out of every five people, one is an immigrant. (Statistics Canada, 2018) Among them, more and more come from Asia, Africa and other developing countries. In 2016, more than 22% of Canada's population was identified as belonging to a visible minority, and among them, three out of ten individuals were born in Canada and the others were immigrants. Since the 1981 Census, the population of visible minorities has grown substantially, as it was at that time less than 5% of the total population. If this trend continues, a third of the Canadian population will be a visible minority by 2036. (Statistics Canada, 2018) The three largest visible minority groups in Canada are the South Asians, the Chinese and the Blacks. According to the 2016 Census, they represent respectively 25.1%, 20.5% and 15.6% of the visible minority population. Since there are so many immigrants and Canadian-born visible minority people in Canada, it is important to understand how they perform in the labour market.

Immigrants are a large part of the population and there exists a wage gap between them and native-born workers. This wage gap has also become larger in recent decades. In addition, the wage gap is larger for some visible minority groups, such as the Chinese, the Blacks and the South Asians, than for non-visible minority immigrants. As a result of Canada's immigration policy, which chooses people according their merits, immigrants on average have higher levels of education than Canadian-born workers. Higher education means higher ability to integrate into the Canadian society, but the fact is that, even if immigrants have higher degrees, they still suffer from apparent wage penalties.

Two possible factors that can explain this wage gap are the level of education and the location of the highest degree (Coulombe, Grenier and Nadeau, 2014). Education acquired outside of Canada has lower returns than education acquired in Canada. In this study, my main focus is on the highly educated individuals. Hence, I restrict my sample to those who hold at least a bachelor degree. Also, in order to see if a wage gap remains after taking location of study into account, my sample includes only individuals whose location of highest degree is in Canada. After controlling for those factors, I compare annual employment income between immigrants and non-immigrants for different visible minority groups and by gender. The results indicate that, even after holding the level and location of education fixed, there still exists a wage gap between visible minorities and non-visible minorities, with the gap being smaller for females than for males. The wage gaps are also different for various visible minority groups. Black, Chinese, South Asians and other visible minority immigrant workers suffer from a wage gap, with the gap being the largest for the Black workers. Among the non-immigrants, there is no or little evidence of a wage gap between visible minority and non-visible minority, with the important exception of the Black male workers.

The structure of this paper is as follows. Section 2 reviews some of the major studies of the literature and divides them between those that focus on immigrants and those that focus on visible minorities. Section 3 presents the data and the sample, along with all the variables that I use in my models. Section 4 describes the models and Section 5 presents the associated results.

2. Literature Review

The related literature will be reviewed from three perspectives, which are the wage gap between immigrants and the native-born workers, the wage gap between visible minorities and non-visible minorities, and history of the presence of some visible minorities in Canada.

2.1 Immigrant Wage Gap

There is a long history of studies on wage differences between immigrant and native-born workers. Chiswick (1978) is an early significant investigation of immigrant's earnings in the United States with a sample of adult white males drawn from the 1970 census. He found out that the time of arrival and the country of origin are two vital factors that influence the earnings of immigrants. The longer an immigrant had been in the US, the smaller the wage gap. The data showed that adult white male immigrants who have stayed in the United States for only five years earned 10 percent less than the native-born, but the gap reduced to 3 percent when the time since arrival was ten years. The wage gap vanished when the time since arrival reached thirteen years, and after that point immigrants even earned more than the native-born. The other important factor is the country of origin, immigrants from English-speaking countries having a smaller wage gap than those from other countries. In general, immigrants had faster earning growth than U.S.-born workers, and Chiswick argued that this is caused by some characteristic that immigrant had inherited from their foreign-born parents.

Plenty of similar studies have been done in Canada. While the early studies indicated that the foreign-born earned on average more than the native-born, the later studies

indicated the opposite. Wright and Maxim (1993) showed that there was a trend of decreasing quality of immigrants, which caused the wage gap to become larger, and this was mainly because of the change of Canada's immigration system. The authors used a sample of male immigrants aged 25 to 54, based on the data from the 1971 to the 1986 Canadian Censuses and some unpublished data from the Department of Employment and Immigration. They suggested two possible theories for their results. The first theory was that the declining quality was caused by the distribution of immigration countries shifting from developed to developing ones, which could lead to a higher level of discrimination. The second theory was the increase in the proportion of the family and refugee immigrant classes since they are not selected for their adaptability, compared to the economic class.

Similar results were found by Baker and Benjamin (1994) by using data from the Canadian censuses of 1971, 1981 and 1986. They used a sample of males aged between 16 and 64 years old who worked 40 weeks or more during a year, and they showed that the entry earnings were falling for all the different immigrant cohorts, while their ability to assimilate was small. Borjas (1991) and Bloom and Gunderson (1989) had found similar results by using different methods. One of the possible explanations of the result besides the changing Canada immigration policy was the declining value of foreign education for immigrants. Bloom, Grenier and Gunderson (1995) suggested that the other factor that might cause the earnings gap was the labour market discrimination against visible minorities. Those authors also found that the length of time for assimilation became longer. For immigrants who arrived before 1965, it took 15 years to complete assimilation for both males and females, but for those who arrived after 1965, the length became longer and longer. In particular, Asian, African and Latin American male immigrants suffered longer

periods of assimilation than immigrants from Europe and the United States. Hum and Simpson (2000) took a closer look at the assimilation of new landing immigrants by using the Survey of Labour and Income Dynamics (SLID) panel sample of individuals that reported a wage in 1993 and 1997. They showed strong evidence of assimilation during the 1990s.

Aydemir and Skuterud (2005) updated the previous analyses by using data from the 1981, 1986, 1991, 1996 and 2001 Canadian Censuses. They compared the immigrants that arrived in Canada from 1965 to 1999 to the native-born Canadians who entered the labour market during the same period. The main focus was to explain the wage gap between new-landing immigrants and native-born Canadians. The authors found that a bit less than half of the decrease in the entry earnings of immigrants could be explained by the declining value of foreign working experience for both males and females, and that another third of the difference could be explained by the change in immigration sources from the traditional European countries to non-traditional Asian countries.

Besides the above factors, the level of education and whether the education was foreign or not also have a big influence on the wage gap. Wald and Fang (2008) found that immigrants were overeducated compared to the Canadian-born. According to the 2001 Census, 25% of immigrant males and 38% of immigrant females had a job with requirement of only high school education, compared to only 12% for Canadian-born males and 13% for Canadian-born females, even though immigrants were more educated than the Canadian-born. Coulombe, Grenier and Nadeau (2014) used a new approach to evaluate the quality of education and work experience by using the GDP per capita of the source country as a proxy, and they showed that the returns to education and work experience

significantly increased with the GDP per capita in the associated source countries. They indicated that the wage gap decreased by almost 64% for males and was eliminated for females by just controlling for human capital quality, and they concluded that human capital quality was a major cause of the wage gap between immigrants and native-born Canadians. Nadeau (2013) found that foreign schooling and work experience are less rewarded in the private sector than in the public sector by using data from the 2006 Census. Nadeau also showed that the overall wage gap is larger in the private sector than in the public sector, and consistent with the earlier literature, immigrants from non-traditional source countries, like those from Asia and Africa, are more at a disadvantage than traditional ones.

By controlling for the level of education and using quantile regressions, Boudarbat and Lemieux (2014) found that between 1980 and 2000, the immigrant-native wage gap for males was very large in the low end of the wage distribution, but that it hardly changed for the top end of the distribution. This finding suggests that with higher education and more experience, the wage gap could be reduced. Boudarbat and Lemieux also indicated that the remaining wage gap could be explained by the countries of origin of the immigrants.

Kaushal, et al. (2015), using data from the Survey of Labour and Income Dynamics (SLID) for 1996, 1999, 2002, and 2005, found that highly educated immigrant males who had lived in Canada for more than 20 years experience negative wage assimilation, that is, they did not have real relative wage growth compared to the Canadian-born. Fortin, Lemieux, and Torres (2016) looked at location of study using a sample of individuals aged between 20 to 64 years who had at least a high school education and were full-time workers in 2005, with immigrants having arrived in Canada between ages of 15 and 29. They found that Asian

educational degrees were significantly less valued than Canadian ones; South American, African, and Eastern European degrees were also less valued but with a smaller difference. There was a positive premium for the degrees from the United Kingdom. Since the foreign degrees are valued differently, the wage gap is larger for Asian immigrants than for European immigrants. Even after controlling for the location of study, the authors still discovered that the wage gap was highly related to the place of birth of immigrants.

The factor of place of birth is linked to the factor of visible minority. Pendakur and Pendakur (2016) used Canadian Census Microdata from 1990 to 2005 and found that visible minority male immigrants suffered from a wage disparity no matter their age at migration, but that white immigrants and female immigrants who arrived in Canada before 18 years old faced little differences in wage. For male visible minority immigrants, the older the age at migration, the larger the wage gap.

With more recent data from the Canadian “Immigration Database” (IMDB) between 1990 and 2007, Mata and Pendakur (2016) found that male family-class immigrants tend to do better than female family-class immigrants. As for the refugee class, both males and females who are privately sponsored have strong earning ability. The authors also indicated that time is an important factor, and that it has a stronger impact for skilled immigrants and government-assisted refugees. Consistent with all of the earlier studies, Mata and Pendakur found that the immigrants from European countries have smaller wage gaps than those from other regions, and this result was most obvious among females.

In summary, immigrants earn less than Canadian-born workers, and this situation is more severe for males than for females. This can be the result of the changing distribution of source countries from developed to developing countries and of the increase in the

family and refugee classes of immigrants. Among the immigrants, those belonging to visible minority groups, especially those from Asia and Africa, suffer greater wage disparities than non-visible minority ones. The level of education is another factor that can partially explain the wage gap. The education degrees from Asia and Africa are less valued than the degrees from Europe, the United States and Canada. The same result is discovered for foreign work experience. Age at migration can greatly affect the wage gap. Visible minority male immigrants suffer from apparent wage penalty no matter their age at migration, but white immigrants and female immigrants who came to Canada before 18 years of old suffer little from wage penalty.

2.2 Visible Minority Wage Gap

Christofides and Swdinsky (1994) used the Labour Market Activity Survey (LMAS) for 1989 and found that visible minorities earned less than Whites; and among them, males earned more than females. They indicated that the average hourly wage in 1989 is \$14.73 for White males, \$12.48 for visible minority males, \$11.33 for White females, and \$10.97 for visible minority females. They also found that productivity factors can explain part of the wage gap. They concluded that visible minority females are the group that is at the most disadvantaged position. Maxim (1992) reached similar conclusions by using the 1986 census of Canada with a sample of males between the ages of 16 and 64. The result is that the group of foreign-born visible minorities has a wage disadvantage, but that the second-generation visible minority group could earn higher than average income in the self-employed sectors.

Howland and Sakellariou (1993) focused on Asians and Blacks and compared their wages to those of Whites. They used data from the 1986 Canadian Census with a sample of individuals aged between 25 and 64 years who earned an annual income over \$5000 and who worked between 25 and 65 hours per week. They found that Black males have the highest wage gap compared to White males, at about 21%, while the gap is only 2% for South Asian males. For females, the wage gap is much smaller, at about 5% for Black females and 4% for both South East Asian and South Asian females.

Pendakur and Pendakur (1998) added the factor of immigration and used the 1991 Census Microdata File. They found that there is an 8% wage gap between Canadian-born visible minority males and Canadian-born white males, and that the gap is larger for immigrants. Immigrant white males face a 2% wage gap, and immigrant visible minority males face a 16% gap, compared to Canadian-born white males. For females, the result is consistent with the previous studies that they typically face a smaller gap than their male counterparts. Pendakur and Pendakur showed that Canadian-born visible minority females do not suffer from a wage gap compared to Canadian-born white females. The wage gap for immigrant White females is 1%, and for immigrant visible minority females, it is 9% compared to Canadian-born white females. Even after controlling for the place of schooling, the gap does not change significantly for immigrant males.

Hum and Simpson (1999) reached the same conclusion by using a different data set, namely the Survey of Labour and Income Dynamics (SLID), that with the exception of Black males, native-born visible minorities do not face a significant wage disadvantage, and that the main groups that suffers from a disadvantage are the immigrant visible minorities.

Hum and Simpson also pointed out that visible minorities should be divided into groups and studied separately based on colour or ethnic origin.

Pendakur and Pendakur (2002) extended their 1998 study by using census data for a longer period from 1971 to 1996, and they found that the wage gap grew larger between 1991 and 1996. Pendakur and Pendakur (2010) further extended their studies and found that the earnings gap for Canadian-born visible minorities did not decrease after 1999, and that Asians and Blacks earn less than Whites.

Swidinsky and Swidinsky (2002) added the factor of age-at-migration and also found that visible minority males are the most disadvantaged group by using the 1996 Census Microdata File. This disadvantage is bigger for those who have a larger age at migration. Among the visible minorities, the Black immigrant males are at the most wage disadvantage regardless of their age at migration and this wage penalty persists for the native-born Black males and females. Lightman and Gingrich (2018) used more recent data from the Survey of Labour and Income Dynamics and reached similar conclusions; Blacks, South Asians and Arabs are at the most disadvantage, especially for recent immigrants and females, which is consistent with the results of the previous studies.

Skuterud (2010) extended the study to include children of immigrants, called the second-generation, and the third-generation and higher-generation (or Canadian-born) males with data from the 2001 and 2006 Canadian Censuses. He found that earnings increase significantly for the successive generations of visible minorities, but this does not apply to White males. The wage growth is especially strong between first and second generations.

Overall, the findings are that visible minority groups suffer from wage penalty, and males have a larger earnings gap than females. After accounting for how many years they have been in Canada, the only group that still suffers from wage penalty is Black male workers. What I will contribute in this study is that I will fix the level of education to at least a bachelor degrees and the location of study to Canada. What I find is that, even with everyone having a Canadian degree, there is still a wage gap for visible minority immigrants, especially Blacks, which is consistent with the previous studies.

2.3 History of Some Immigrant Visible Minority Groups in Canada

Before proceeding to the rest of my study, I briefly discuss the history of the main visible minorities in Canada. The different circumstances of the visible minority groups may relate to the history of their immigration. For the Chinese, the first major period of immigration occurred between 1858 and 1923, which is the period during which many Chinese immigrants came to Canada as workers to build the Canadian Pacific Railway (CPR). In order to immigrate to Canada, each individual had to pay 50 dollars “head” tax, and this might be the major reason that caused the wage gap for Chinese at that period since they were rather poor and uneducated. In 1947, this tax was abolished, and since then most Chinese immigrants came from Hong Kong and Taiwan up until the 1990s. These immigrants are more educated and richer than the previous ones. Today, most Chinese immigrants are from Mainland China and are richer than earlier Chinese immigrants, which may be the major reason that their next generation is doing better. (Government of Canada, 2018)

The history of Black immigrants starts as early as in 1608, when the first recorded Black people came from Africa to serve as interpreters of the Mi'kmaq language. During the 17th and 18th centuries, a few thousand Africans came to Canada as slaves. In 1793, an act was passed to abolish slavery and all the Black people automatically became free. During the American Civil War, many slaves fled to Canada for their own safety. In 1910, the government of Canada barred immigrants from some races into Canada by having a new *Immigration Act*, which decreased the number of Black immigrants, but this act was dropped in 1967. After then, the number of Black immigrants rose dramatically, and most Black people now are from Jamaica, Haiti and Africa. (Government of Canada, 2018)

South Asian immigrants mainly came from India, and the history of Indian immigration began during the late 1800s. The Chinese Head Tax decreased the number of Chinese immigrants, so agents started to encourage Indian immigrants. After the end of the Second World War, the government of Canada changed the immigration policies and increased the number of India immigrants substantially. Today, most South Asian immigrants are from India and Pakistan. (Government of Canada, 2018)

The point system that the Canadian government uses today has a major impact on the composition of immigrants. The system selects immigrants according to their ability to assimilate but not to the country they are from or their race. This is likely to decrease the discrimination against immigrants.

3. Data and Variables

3.1 Sample

The sample of this study is from the National Household Survey (NHS) 2011 Public Use Microdata File (PUMF). This survey replaced the mandatory long-form census questionnaire that was used in earlier censuses. It is a voluntary, self-administered survey that collects social and economic data for different geographic areas and small population groups. It includes social, demographic and economic characteristics of people living in Canada, and in this study the main characteristics of interest are immigration status, visible minority status, level of education and annual income. The sample size of NHS represents about 2.7% of the entire Canadian population, for a total of 887,012 individuals. Since the survey is voluntary, the response rate was about 68.6%, which is a similar rate to other voluntary surveys done by Statistics Canada. The sample design of the public use microdata accounts for the non-response so that all observations have approximately equal weights.

The main purpose of this study is to examine the wage gap between visible minority groups and non-visible minority among immigrants and non-immigrants who have at least a Canadian bachelor degree. The 2011 NHS contains extensive information about an individual's immigration status, annual income level, visible minority status, and even father and mother's places of birth.

The sample used in this study comprises individuals aged between 25 and 65 whose location of highest degree is in Canada and who have at least a bachelor degree. It includes individuals who had a positive employment income and who did not attend school. Since the study is mainly about an individual's income, full-time and part-time students are

excluded from the sample because their main activity is not working. I also exclude the individuals who reported less than \$500 annual employment income and more than \$200,000 in 2010, since they are considered as outliers. Because of the focus on visible minorities, I exclude individuals whose visible minority status is not available. Individuals who reported multiple visible minorities, which comprises about 0.5% of the total population, are included in the residual category *Rest of the World*, which includes visible minorities other than Blacks, Chinese, South Asians and non-visible minorities.

From Tables 1 and 2, we can see that the sample size used in this study is 70,883 individuals with 32,207 males and 38,676 females. Among them, 11,530 individuals are immigrants, which comprises about 16.3% of the total sample size and 10,104 individuals are visible minorities, which comprises 14.3% of the total sample size. Among the visible minority groups, there are 1,114 Blacks, 3,756 Chinese and 2,170 South Asians, which account for 1.6%, 5.3% and 3.1% of total sample size respectively. They are the three most significant groups on which this study will focus.

Table 1: Number of Observations in the Sample by Gender and Immigrant Status (percentage of the total)			
	Male	Female	Total
Non-immigrant	26,242 (37%)	33,111(46.7%)	59,353(83.7%)
Immigrant	5,965(8.4%)	5,565(7.9%)	11,530(16.3%)
Total	32,207(45.4%)	38,676(54.6%)	70,883(100%)

**Table 2: Number of Observations in the Sample by Gender and Visible Minority Status
(percentage of the total)**

	Male	Female	Total
Non-visible Minority	27,019(38.1%)	33,760(47.6%)	60,779(85.7%)
Black	532(0.8%)	582(0.8%)	1,114(1.6%)
Chinese	1,890(2.7%)	1,866(2.6%)	3,756(5.3%)
South Asian	1,147(1.6%)	1,023(1.5%)	2,170(3.1%)
Rest of the World	1,619(2.2%)	1,445(2.1%)	3,064(4.3%)
<i>Visible Minority</i>	5,188(7.3%)	4,916(7%)	10,104(14.3%)
Total	32,207(45.4%)	38,676(54.6%)	70,883(100%)

3.2 Variables

The main focus of this study is the wage gap, so measuring the individual's annual income is critical. I use *log of Income* as the dependent variable, where *Income* is the employment income received during 2010. In this study, the independent variables include information on immigration, human capital, ethnic origin, demography, and geography.

The ethnic origin variables are related to visible minority status. The literature indicated that visible minority is a significant factor that can explain the wage gap, but Hum and Simpson (1999) pointed out that there is a danger to combine all visible minorities together, since they have different backgrounds. Hence I separate the sample into five groups, which are *Nonvisible Minority*, *Black*, *Chinese*, *South Asian* and *Rest of the World*. They are all specified as dummy variables representing the individual's visible minority status. Table 3 presents the percentages of visible minority groups and of non-visible

minority individuals who were born in and outside of Canada. In my sample, about 29% of the Chinese origin people who was born in Canada, while the others were born outside of Canada (29% were born in Mainland China, and 27% were born in Hong Kong). Blacks are another large group in Canada, and in the sample, about 33% of them were born in Canada, 11% were born in Jamaica, 18% were born in other Caribbean and Bermuda (mainly Haiti), and 11% were born in Eastern Africa. As for the South Asians, 34% are Canadian-born, 29% were born in India, and 8% were born in Pakistan. *Rest of the world* includes other visible minorities, such as Filipinos, Latin Americans, Arabs, Southeast Asians, West Asians, Koreans and Japanese. In the model, *Nonvisible Minority* is the reference group.

	Non-visible Minority	Black	Chinese	South Asian
Canada	92.7%	33%	29%	34%
Outside of Canada	7.3%	67%	71%	66%

Even though the study is limited to individuals with at least a Canadian bachelor degree, the highest level of education attained is still a factor that can explain the wage gap. Therefore, I created two dummy variables, one for *Bachelor*, which is the reference group, and the other for *Above Bachelor*. *Bachelor* includes all individuals whose highest level of education is bachelor, and *Above Bachelor* includes everyone who has a master, a PhD degree or a degree in medicine, dentistry, veterinary medicine or optometry.

The geographic variables include the provinces of Canada, which are *Ontario*, *Quebec*, *Alberta*, *British Columbia*, the *Prairies* and the *Atlantic* provinces. I combine some provinces

together since relatively few people live there. The *Prairies* category combines Manitoba and Saskatchewan. The *Atlantic* provinces category includes Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick. Alberta is not combined into these is because of the high volume of immigrants who are willing to live there. *Ontario* is the reference group.

Age, *Weeks worked* and *Marital status* are the human capital variables that will be used in this study. The data only provides five-year age groups for individuals, so I take the midpoint for everyone's age. Age is included in the model because as age increases, years of work experience increase at the same time. Hence age is used as a proxy for years of working experiences. The marginal effect of experience diminish as years of experience increase, so the square of age is added as an independent variable in order to capture a concave effect. *Weeks worked* is an important factor of wage since the more weeks individuals work, the more wage they can earn. This is defined as the number of weeks a person worked in 2010. The data only have the range of weeks worked, so I take the midpoint for each groups weeks worked. *Marital status* has a significant but likely different impact on the wage for males and females. I divide marital status into three groups, which are *Never Married*, *Married* and *Rest of the Marital Statuses*. *Rest of the marital statuses* includes living common law, separated, divorced and widowed.

There are three immigration related independent variables, which are *Immigrant*, *Years since Immigration* and *Second Generation*. *Immigrant* is a dummy variable indicating whether an individual is immigrant or not. Since the NHS does not have the specific number of each immigrant's years since immigration and only has the range for the immigrants that came before 1989. I take each range's midpoint as years of immigration

before 1989. Then I use 2011 minus the year individuals came to Canada and derive their years since immigration. For non-immigrants, the number is set to zero for this variable. The variable *Second Generation* refers to individuals whose father or mother's place of birth is a country other than Canada, which means that at least one of their parents is an immigrant.

3.3 Summary Statistics

Tables 4 and 5 show the mean values of the variables by immigration status for males and females respectively. As we can see, even after the level of education and the location of study are held, there still exists a wage gap between immigrants and non-immigrants for both females and males, but the gap is larger for males. Immigrant females earn on average \$1,800 less than Canadian-born females, and immigrant males earn almost \$3,700 less than Canadian-born males. Overall, males earn more than females for both immigrants and non-immigrants with a gap of about \$1400 among immigrants and \$1600 among non-immigrants. The wage gap between males and females is larger for Canadian-born workers. These results are consistent with the ones reported in Christofides and Swdinsky (1994). This can be due to the fact that immigrants tend to have higher education levels than Canadian-born workers, which will be analyzed later in this section. Overall, the group of immigrant females is the group with the most disadvantaged position.

Looking at the level of education, we can see that more immigrants than non-immigrants have a degree higher than bachelor for both females and males. For females, 36.7% of the immigrant sample have a higher than bachelor's degree, and the number is 42.5% for male immigrants, compared to 28.6% and 28.9% for non-immigrant females and

males respectively. Even though immigrants have a higher level of education, especially immigrant males, they still earn less than Canadian-born workers. This is consistent with the result of Wald and Fang (2008), who found that immigrants tend to be overeducated in the positions that they hold.

When it comes to choosing a place to live, immigrants prefer Ontario and British Columbia. More than half of the immigrants live in Ontario, compared to only about a third of the Canadian-born. The difference in the proportions living in British Columbia between immigrants and non-immigrants is about 5 percentage points. The main reason some immigrants do not live in Quebec can be the language barrier, since many immigrants are from Asia now, and they speak English rather than French. For the Prairies and the Atlantic provinces, the reason why immigrants are under-represented might be difficulty in assimilating into a less urbanized society.

The samples of immigrants and non-immigrants have similar ages, which are about 41 years old for females and 43 years old for males. The number of weeks worked for both groups are similar too, which are about 43 weeks for females and 45 weeks for males. As for marital status, about similar percentages of females and males are never married, which is about 20%, but there are more married people among the immigrants than among the non-immigrants. There is a seven percentage point difference for females and an eight percentage point difference for males.

Table 4: Summary Statistics for the Sample of Females

Variables	Mean for Immigrants	Mean for non-Immigrants
Income	54,618	56,435
<i>Visible minority</i>		
Black	0.065	0.006
Chinese	0.231	0.018
South Asian	0.109	0.012
Rest of the world	0.180	0.013
Nonvisible minority	0.414	0.950
<i>Level of education</i>		
Bachelor degree	0.633	0.713
Above bachelor degree	0.367	0.286
<i>Place of residence</i>		
Ontario	0.556	0.376
Quebec	0.148	0.260
Alberta	0.088	0.108
British Columbia	0.162	0.112
Prairies	0.027	0.064
Atlantic	0.020	0.079
Years since immigration	25.92	
Age	41.710	41.600
Weeks worked	43.361	43.888
<i>Marital status</i>		
Never married	0.207	0.197
Married	0.607	0.536
Rest of the marital statuses	0.186	0.266
Second generation		0.249

Table 5: Summary Statistics for the Sample of Males

Variables	Mean for Immigrants	Mean for non-Immigrants
Income	68,391	72,029
<i>Visible minority</i>		
Black	0.065	0.006
Chinese	0.229	0.020
South Asian	0.139	0.012
Rest of the world	0.198	0.017
Nonvisible minority	0.369	0.946
<i>Level of education</i>		
Bachelor degree	0.575	0.711
Above bachelor degree	0.425	0.289
<i>Place of residence</i>		
Ontario	0.542	0.381
Quebec	0.163	0.263
Alberta	0.092	0.108
British Columbia	0.157	0.115
Prairies	0.030	0.062
Atlantic	0.016	0.071
Years since immigration	25.930	
Age	43.420	43.330
Weeks worked	45.262	45.885
<i>Marital status</i>		
Never married	0.205	0.198
Married	0.657	0.575
Rest of the marital statuses	0.138	0.227
Second generation		0.260

Taking a look at average employment income for different visible minority groups from table 6, we can see that non-immigrant Black females earn the lowest annual employment income, and perhaps surprisingly, immigrant White males earn the highest salary, which is about \$73,090. When we compare immigrants and non-immigrants with similar levels of education, non-visible minority, Black and South Asian male immigrants tend to earn more than Canadian-born workers. For females, the wage gap remains large relative to males for the non-visible minority group, but it is small for Black and South Asian females. In

contrast, Chinese male and female immigrants earn less than Chinese non-immigrants, with a difference of about \$2,300 for males and \$2,900 for females. Hence, we can conclude that not all visible minority immigrants earn less than Canadian-born workers.

	Mean for Non-Immigrant		Mean for Immigrant	
	Male	Female	Male	Female
Non-visible Minority	72,410	56,560	73,090	57,300
Black	55,520	53,060	59,560	53,250
Chinese	68,380	56,040	66,600	53,750
South Asian	66,120	54,050	69,330	54,730

4. Model

The raw model I first estimate includes only the dummy variable of visible minorities and is expressed as:

$$\log(\text{Income}) = \beta_0 + \beta_1 \text{Black} + \beta_2 \text{Chinese} + \beta_3 \text{SouthAsian} + \beta_4 \text{RestofWorld} + \varepsilon_i \quad (1)$$

I estimate this raw model for both immigrants and non-immigrants separately, since in this way we can compare the wage gaps for different visible minority groups within immigrants and non-immigrants and find out whether there is a difference by comparing outcomes for the same visible minority group for immigrants and non-immigrants respectively.

I estimate two full models that include all the independent variables that can explain the wage gap. The difference between the two models is that the first one does not include the number of years since immigration, while the second does. They are expressed as:

$$\begin{aligned} \log(\text{Income}) = & \beta_0 + \beta_1 \text{Black} + \beta_2 \text{Chinese} + \beta_3 \text{SouthAsian} + \beta_4 \text{RestofWorld} + \\ & \beta_5 \text{AboveBachelor} + \beta_6 \text{Quebec} + \beta_7 \text{Alberta} + \beta_8 \text{BC} + \beta_9 \text{Prairies} + \\ & \beta_{10} \text{Atlantic} + \beta_{11} \text{Weekwrk} + \beta_{12} \text{Married} + \beta_{13} \text{RestMarsth} + \beta_{14} \text{Age} \\ & + \beta_{15} \text{Age}^2 + \beta_{16} \text{SecondGen} + \varepsilon_i \end{aligned} \quad (2)$$

and

$$\begin{aligned} \log(\text{Income}) = & \beta_0 + \beta_1 \text{Black} + \beta_2 \text{Chinese} + \beta_3 \text{SouthAsian} + \beta_4 \text{RestofWorld} \\ & + \beta_5 \text{AboveBachelor} + \beta_6 \text{Quebec} + \beta_7 \text{Alberta} + \beta_8 \text{BC} + \beta_9 \text{Prairies} + \\ & \beta_{10} \text{Atlantic} + \beta_{11} \text{Weekwrk} + \beta_{12} \text{Married} + \beta_{13} \text{RestMarsth} + \beta_{14} \text{Age} \\ & + \beta_{15} \text{Age}^2 + \beta_{16} \text{SecondGen} + \beta_{17} \text{YearImmig} + \varepsilon_i \end{aligned} \quad (3)$$

where $\log(\text{Income})$ is the log of the individuals' annual income in 2010, and *Black*, *Chinese*, *SouthAsian* and *RestofWorld* are the dummy variables representing individuals' visible minority status with nonvisible minority serving as the reference group. *Quebec*, *Alberta*, *BC*, *Prairies* and *Atlantic* are the dummy variables that represent the provinces with *Ontario* serving as the reference group. *Weekwrk* is the number of weeks worked during 2010. *Married* and *RestMarsth* are subjects' marital statuses with never married as the reference group. *SecondGen* means that the person is a second generation of immigrants and *YearImmig* represents their number of years since immigration.

I estimate equation (2) for immigrants and non-immigrants separately like I did with the raw model, so I can discern if wage penalty differs for immigrants. The model for

immigrants only does not include the variable second generation since it does not make sense, but the model for non-immigrants does include the variable second generation. I also estimate equation (2) for the entire sample so that I can compare the results with only immigrants and non-immigrants. This model includes both the second generation and immigrant variables. The main difference between equation (2) and equation (3) is the variable *years since immigration*, which is included in the latter model. According to previous studies, this is an important factor that can explain the wage gap. Hence I estimate two models to verify this fact.

5. Results

5.1 Raw Models

First, I estimate the raw models based on equation (1) for immigrants and non-immigrants respectively. Tables 7 and 8 show the results. In the regressions estimated from samples that include both genders, among immigrants, Blacks earn 7.2% less than non-visible minorities, and the wage disadvantage increases to 17.4% for non-immigrants. The coefficient for Chinese workers is significant only for immigrants. Chinese immigrants earn about 5% less than non-visible minority immigrants, but there is no evidence showing that they are doing worse when they are native-born. Both South Asian immigrants and native-born workers are not significantly doing better or worse than non-visible minority workers.

When we break down the results by gender, we can see that females are doing better than males for all visible minority groups when compared to the non-visible minorities. Native-born Black males earn a huge 34.1% less than native-born Whites, which makes

them the most disadvantaged group. This value is quite large, keeping in mind that the level of education is held fixed to at least bachelor degree, and that all of them have Canadian degrees. Chinese and Black immigrant males earn less than non-visible minority immigrants with a gap of 9.4% and 17.3% respectively. For females, all the coefficients other than *Rest of the World* are not significant. However, this is only the raw model, which does not account for other independent variables that can explain the wage gap. In the next sub-section, I will add all the other human capital, demographic, and geographic independent variables.

Table 7: Regression Results of the Raw Model for log(Income) with visible minority for Immigrants, OLS

	Both Genders	Female	Male
	lnEMPIN	lnEMPIN	lnEMPIN
Black	-0.0718* (0.0331)	0.0201 (0.0468)	-0.173*** (0.0466)
Chinese	-0.0545* (0.0230)	-0.0282 (0.0327)	-0.0942** (0.0318)
South Asian	-0.00823 (0.0277)	-0.0364 (0.0433)	-0.0298 (0.0354)
Rest of the World	-0.0918*** (0.0239)	-0.0955** (0.0346)	-0.116*** (0.0324)
Constant	10.77*** (0.0145)	10.64*** (0.0205)	10.92*** (0.0199)
<i>N</i>	11530	5565	5965
<i>R</i> ²	0.002	0.001	0.004

Standard errors in parentheses

- $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority is the reference group

Table 8: Regression Results of the Raw Model for log(Income) with visible minority for Non-Immigrants, OLS

	Both Genders	Female	Male
	lnEMPIN	lnEMPIN	lnEMPIN
Black	-0.174*** (0.0478)	-0.0430 (0.0608)	-0.341*** (0.0773)
Chinese	0.00411 (0.0253)	0.00400 (0.0363)	-0.0148 (0.0340)
South Asian	-0.0384 (0.0311)	-0.0156 (0.0426)	-0.0649 (0.0442)
Rest of the World	-0.0729* (0.0305)	-0.0659 (0.0425)	-0.110* (0.0429)
Constant	10.78*** (0.00384)	10.66*** (0.00517)	10.94*** (0.00558)
<i>N</i>	59353	33111	26242
<i>R</i> ²	0.000	0.000	0.001

Standard errors in parentheses

- $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority is the reference group

5.2 Full Models

Tables 9 and 10 list the results for the specification of variables in equation (2) for immigrants and non-immigrants respectively. After adding the other independent variables, we can see that in the regressions that include both genders, Black, Chinese and South Asian immigrants have significant wage gaps compared to non-visible minority immigrants. All of the coefficients for Blacks, Chinese and South Asian immigrants and non-immigrants are significant at the 5% level or more for the models that include both genders. With the exception of non-immigrant Chinese and South Asians, who earn more than the non-visible minorities, all other groups earn significantly less. Black, Chinese and

South Asian immigrants earn 6%, 5.3% and 4.9% less respectively than non-visible minority immigrants. For the non-immigrants, the results are different. While Black native-born workers still earn about 10.9% less than non-visible minority workers, Chinese and South Asian workers actually earn more by 9.4% and 6.2% respectively. This can be due to the fact that the level of education is fixed. Since Black workers earn even less when they are native-born rather than immigrants, this suggests that the wage disadvantage for them does not relate mainly to the immigration status, but to their visible minority status. In contrast, Chinese and South Asian workers do better if they are native-born than if they are immigrants, which suggests that their wage disadvantage is based on their immigration status rather than on their visible minority status.

The results differ substantially between females and males. Overall, the wage gap is small or nonexistent for the female visible minority groups, for both immigrants and non-immigrants. The coefficients for Black, Chinese and South Asian immigrant females are all not significant, indicating that there is no evidence that they earn more or less than non-visible minority female immigrants. For the non-immigrants, Chinese females earn significantly more than non-visible minority native-born females, with about 11.9% higher income. For males, the results are similar to the overall results discussed earlier but with larger wage gaps. The magnitude of the coefficients for Black and Chinese immigrant males doubles compared to the coefficient in the pooled regression, with the incomes being about 14.5% and 10.1% lower respectively. South Asian immigrant males earn less than non-visible minority immigrant males by about 6.4%, which is 1.5 percentage point more than in the regression for both genders.

The results are similar for non-immigrants. Black male Canadian-born workers earn 18.8% less than their non-visible minority counterparts, which is about 8 percentage points more than in the regression for both genders. Chinese males perform better than White males, but the number is less than in the both gender regression. The estimate for South Asian non-immigrant male is the only one that is not significant within all the visible minority groups. Even though the wage gaps for visible minorities are smaller for females than for males, males earn more than females overall. From the variable *Male* in the regression for both genders, we can see that males earn more than females by 16% and 20% for immigrants or non-immigrants respectively.

The rest of the variables have approximately the same effects for immigrants and non-immigrants. With the exception of Alberta, workers who live in other provinces earn less than those who live in Ontario. Married individuals earn about 10% more than never married ones, and this effect is more important for males than for females. It is worth mentioning that second generation immigrants, who are Canadian-born workers with at least one immigrant parent, suffer from a 2.4% wage penalty compared to the third or higher generations.

To summarize those results, even after restricting the sample to those holding Canadian university degrees, there remains a wage gap for some visible minority groups. Chinese and South Asian male immigrants still suffer wage penalty for their immigration status. Furthermore, Black males suffer wage penalty no matter whether they are immigrants or native-born. Females suffer a smaller wage gap than males for all visible minority groups and for both immigrants and non-immigrants.

Table 9: Regression Results of the Full Model for log(Income) for Immigrants, OLS

	Both Genders lnEMPIN	Female lnEMPIN	Male lnEMPIN
Black	-0.0625* (0.0279)	0.0103 (0.0391)	-0.145*** (0.0397)
Chinese	-0.0541** (0.0196)	-0.0116 (0.0274)	-0.100*** (0.0280)
South Asian	-0.0506* (0.0241)	-0.0452 (0.0371)	-0.0635* (0.0316)
Rest of the World	-0.0436* (0.0206)	-0.0437 (0.0299)	-0.0477 (0.0283)
Above Bachelor Degree	0.114*** (0.0152)	0.131*** (0.0221)	0.0968*** (0.0209)
Quebec	-0.170*** (0.0215)	-0.191*** (0.0301)	-0.150*** (0.0305)
Alberta	0.103*** (0.0255)	0.0621 (0.0389)	0.140*** (0.0334)
British Columbia	-0.121*** (0.0212)	-0.147*** (0.0304)	-0.0988*** (0.0297)
Prairies	-0.140*** (0.0419)	-0.158* (0.0687)	-0.124* (0.0511)
Atlantic	-0.0680 (0.0516)	-0.0653 (0.0707)	-0.0589 (0.0758)
Weeks Worked	0.0369*** (0.000908)	0.0379*** (0.00117)	0.0353*** (0.00142)
Married	0.105*** (0.0196)	0.0219 (0.0272)	0.194*** (0.0282)
Rest of Marital Statuses	0.0680** (0.0248)	0.0426 (0.0333)	0.0920* (0.0369)
Age	0.0863*** (0.00623)	0.0834*** (0.00906)	0.0890*** (0.00871)

Age Square	-0.000926*** (0.0000714)	-0.000900*** (0.000105)	-0.000958*** (0.0000983)
Male	0.167*** (0.0146)		
Constant	7.079*** (0.129)	7.155*** (0.182)	7.219*** (0.188)
<i>N</i>	11530	5565	5965
<i>R</i> ²	0.310	0.330	0.271

Standard errors in parentheses

- $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority, Bachelor Degree, Ontario and Never Married are the reference groups

Table 10: Regression Results of the Full Model for log(Income) for Non-Immigrants, OLS

	Both Genders	Female	Male
	lnEMPIN	lnEMPIN	lnEMPIN
Black	-0.109** (0.0400)	-0.0590 (0.0498)	-0.188** (0.0647)
Chinese	0.0938*** (0.0225)	0.119*** (0.0324)	0.0725* (0.0310)
South Asian	0.0619* (0.0267)	0.0622 (0.0360)	0.0644 (0.0394)
Rest of the World	0.00754 (0.0265)	0.0283 (0.0363)	-0.00471 (0.0389)
Second Generation	-0.0242** (0.00819)	-0.0347** (0.0113)	-0.00881 (0.0117)
Above Bachelor Degree	0.159*** (0.00696)	0.186*** (0.00938)	0.123*** (0.0103)
Quebec	-0.0669*** (0.00825)	-0.0803*** (0.0112)	-0.0492*** (0.0121)
Alberta	0.0804*** (0.0113)	0.0631*** (0.0152)	0.106*** (0.0166)
British Columbia	-0.101*** (0.0113)	-0.133*** (0.0154)	-0.0668*** (0.0164)
Prairies	-0.0525*** (0.0137)	-0.0429* (0.0189)	-0.0648*** (0.0197)
Atlantic	-0.105*** (0.0125)	-0.0994*** (0.0166)	-0.114*** (0.0189)
Weeks Worked	0.0351*** (0.000430)	0.0350*** (0.000517)	0.0344*** (0.000764)
Married	0.113*** (0.00864)	-0.0184 (0.0113)	0.283*** (0.0133)
Rest of Marital Statuses	0.0762*** (0.00935)	0.00540 (0.0120)	0.166*** (0.0147)

Age	0.110*** (0.00285)	0.100*** (0.00387)	0.121*** (0.00422)
Age Square	-0.00122*** (0.0000333)	-0.00110*** (0.0000457)	-0.00137*** (0.0000489)
Male	0.200*** (0.00631)		
Constant	6.708*** (0.0572)	6.981*** (0.0770)	6.623*** (0.0871)
<i>N</i>	59353	33111	26242
<i>R</i> ²	0.298	0.290	0.281

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority, Bachelor Degree, Ontario and Never Married are the reference groups

Table 11 reports the estimates for the same full model when immigrants and non-immigrants are pooled into the same estimating sample. In the regression that includes both genders, we can see that the Chinese and South Asian coefficients are not significant. This shows that, on average, there is no evidence of a wage penalty against them. However, Black workers still earn 7.4% less than non-visible minority workers. When each gender equation is estimated separately, Black and South Asian females do not suffer from a wage gap, and Chinese females even earn 4.8% more than non-visible minority females. For males, the only group that suffers from a wage disadvantage is Black male workers and the magnitude of the coefficient is similar to the one in table 9. Hence, Black males are the group at the highest disadvantage in the labour market. I add the variable *Immigrant* as one of the independent variables in this model. The estimate shows that holding ethnic group constant, immigrants earn about 5% less than non-immigrants, which is consistent with the earlier studies.

Table 11: Regression Results of Full Model for log(Income) for Both Immigrants and Non-Immigrants, OLS

	Both Genders	Female	Male
	lnEMPIN	lnEMPIN	lnEMPIN
Black	-0.0738** (0.0226)	-0.0107 (0.0304)	-0.153*** (0.0334)
Chinese	0.00634 (0.0145)	0.0484* (0.0204)	-0.0386 (0.0206)
South Asian	0.00108 (0.0176)	0.0141 (0.0257)	-0.0154 (0.0243)
Rest of the World	-0.0263 (0.0158)	-0.0140 (0.0226)	-0.0350 (0.0222)
Second Generation	-0.0173* (0.00786)	-0.0309** (0.0109)	0.00123 (0.0113)
Immigrant	-0.0513*** (0.0106)	-0.0404** (0.0147)	-0.0634*** (0.0152)
Above Bachelor Degree	0.149*** (0.00632)	0.176*** (0.00863)	0.115*** (0.00926)
Quebec	-0.0810*** (0.00765)	-0.0937*** (0.0104)	-0.0654*** (0.0112)
Alberta	0.0814*** (0.0103)	0.0605*** (0.0141)	0.109*** (0.0149)
British Columbia	-0.105*** (0.00995)	-0.136*** (0.0137)	-0.0747*** (0.0144)
Prairies	-0.0641*** (0.0130)	-0.0555** (0.0182)	-0.0749*** (0.0183)
Atlantic	-0.108*** (0.0121)	-0.104*** (0.0161)	-0.116*** (0.0182)
Weeks Worked	0.0355*** (0.000389)	0.0355*** (0.000474)	0.0347*** (0.000674)
Married	0.109*** (0.00788)	-0.0145 (0.0104)	0.263*** (0.0120)

Rest of Marital Statuses	0.0755*** (0.00871)	0.0110 (0.0112)	0.154*** (0.0136)
Age	0.105*** (0.00258)	0.0974*** (0.00355)	0.114*** (0.00378)
Age Square	-0.00116*** (0.0000301)	-0.00107*** (0.0000418)	-0.00127*** (0.0000437)
Male	0.194*** (0.00579)		
Constant	6.798*** (0.0522)	7.026*** (0.0707)	6.777*** (0.0789)
<i>N</i>	70883	38676	32207
<i>R</i> ²	0.299	0.295	0.278

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority, Bachelor Degree, Third Generation or more, Ontario and Never Married are the reference groups

5.3 Full Models including the Variable Years since Immigration

As the previous studies have found, years since immigration is an important factor that influences immigrants' wage levels (see, for example, Pendakur and Pendakur, 2016). In this last specification, I add years since immigration into my model as in equation (3). Table 12 presents the estimates. In the regression that pools both genders, we can see that the wage gap for Black workers does not change very much, which means that the number of years spent in Canada does not affect the wage disadvantage against them. In contrast, Chinese workers earn 3.3% more than non-visible minority workers when years since immigration is taken into account. Chinese workers also perform better as time goes by. However, there is no significant change for South Asian workers.

When the model is estimated separately for each gender, the wage for females and males behave differently. For Black females, there is no evidence of wage penalty, but Black males still suffer from a large wage penalty, with a gap of about 13.3%. This number is close to the ones in the previous tables. Chinese females earn 7.11% more than non-visible minority females when *years since immigration* is accounted for. The same advantage does not appear for Chinese male workers, but there is no evidence that they perform worse either. Overall, when time passes, all other visible minority groups other than Black workers are free from wage disadvantage. Black workers, especially males, always suffer from wage penalties no matter the number of years since immigration. Since the effects of the level of education and location of education are controlled for, the wage disadvantage for Black workers is not based on their human capital characteristics, but on their visible minority status.

The estimate for the variable *Immigrant* increases to minus 18.3%, which is a lot higher than the estimate in Table 11. This means that when we consider the years since immigration, immigrants suffer a large wage gap when they arrive in Canada. However, as time goes on, they assimilate into the Canadian labour market.

Table 12: Regression Results of Full Model for log(Income) for Immigrant with Years since Immigration, OLS

	Both Genders	Female	Male
	lnEMPIN	lnEMPIN	lnEMPIN
Black	-0.0613** (0.0236)	-0.00414 (0.0318)	-0.133*** (0.0348)
Chinese	0.0330* (0.0149)	0.0711*** (0.0210)	-0.00964 (0.0210)
South Asian	0.0219 (0.0180)	0.0291 (0.0259)	0.0113 (0.0249)
Rest of the World	-0.00231 (0.0163)	0.00298 (0.0232)	-0.00593 (0.0230)
Above Bachelor Degree	0.152*** (0.00637)	0.177*** (0.00869)	0.120*** (0.00933)
Quebec	-0.0758*** (0.00767)	-0.0903*** (0.0105)	-0.0583*** (0.0112)
Alberta	0.0843*** (0.0103)	0.0613*** (0.0142)	0.115*** (0.0149)
British Columbia	-0.106*** (0.0100)	-0.136*** (0.0138)	-0.0756*** (0.0144)
Prairies	-0.0580*** (0.0131)	-0.0487** (0.0183)	-0.0703*** (0.0186)
Atlantic	-0.107*** (0.0122)	-0.103*** (0.0163)	-0.115*** (0.0184)
Immigrant	-0.183*** (0.0191)	-0.157*** (0.0274)	-0.204*** (0.0267)
Second Generation	-0.0212** (0.00788)	-0.0331** (0.0109)	-0.00434 (0.0113)
Years since Immigration	0.00505*** (0.000603)	0.00456*** (0.000865)	0.00529*** (0.000843)
Weeks Worked	0.0353*** (0.000391)	0.0353*** (0.000476)	0.0345*** (0.000681)

Married	0.111*** (0.00793)	-0.0136 (0.0105)	0.267*** (0.0121)
Rest of Marital Statuses	0.0758*** (0.00876)	0.0114 (0.0113)	0.154*** (0.0137)
Age	0.106*** (0.00260)	0.0972*** (0.00356)	0.115*** (0.00380)
Age Square	-0.00117*** (0.0000303)	-0.00107*** (0.0000421)	-0.00129*** (0.0000439)
Male	0.195*** (0.00582)		
Constant	6.802*** (0.0525)	7.042*** (0.0711)	6.773*** (0.0794)
<i>N</i>	69995	38236	31759
<i>R</i> ²	0.299	0.295	0.279

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Non-visible minority, Bachelor Degree, Third Generation or more, Ontario and Never Married are the reference groups

6. Conclusion

This study used the 2011 National Household Survey to investigate the wage gap between visible minority and non-visible minority workers for immigrants and non-immigrants. I found that even after holding the level and location of education fixed, immigrants earn less than non-immigrants, and overall females have smaller wage gaps than males.

Among the immigrant males, the visible minority groups of Black, Chinese and South Asian earn less than non-visible minority immigrant males, but there is no evidence that immigrant female visible minority groups suffer from wage penalty. Among the non-

immigrants, only Black males suffer from a large wage gap of 18.8%, and Chinese non-immigrant females and males all earn more than non-visible minority workers. When both immigrants and non-immigrants are combined in the sample, results are similar with those of the model that contains only non-immigrants. Only Black males suffer from a large wage gap.

After adding the variable *years since immigration*, all visible minority groups other than Black males still earn less than non-visible minority workers, and Chinese females significantly earn more than non-visible minority female workers. Hence from all three models, we can conclude that Black males are the group that suffers from the largest wage disadvantage in the labour market, and this result supports the previous studies. Immigrants from other visible minority groups suffer from a wage gap, but as time of residence in Canada passes by, the gap reduces substantially.

Based on the results of this study, governments should enact policies that focus on reducing wage gap in the labour market for visible minority immigrants. As for non-immigrants, the policies should focus on reducing the wage penalty against Black males.

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