

**Gender Wage Differentials among Immigrants and Native-born
Canadians**

**By Zhe Zhang
(6958269)**

**Major paper presented to the
Department of Economics of the University of Ottawa
in partial fulfillment of the requirements of the M.A. Degree**

Supervisor: Professor Gilles Grenier

ECO6999

Ottawa, Ontario

December 2013

Abstract

Using data from the 2006 Canadian Census, this paper investigates gender wage differentials and their determinants among immigrants and native-born Canadians aged 25 to 64. The factors that affect the gender wage differentials for both immigrants and Canadian-born include education attainment, work experience, marital status, the presence of children, weeks worked, and part-time working status. Additionally, immigration specific variables are taken into account for the analysis of immigrants. This paper finds that the total gender wage differentials are similar among immigrant and the Canadian-born workers, in both the all workers group and the full-time and full-year workers group. Differences in coefficients (sometimes called discrimination) make a larger contribution in explaining the gender wage differential for the Canadian-born than for the immigrants. In addition, the different return to work experience plays a larger effect on the gender wage differential for immigrants than for Canadian-born. Also, the gender wage differential for Canadian-born is more affected by the different return to education attainment than that for immigrants.

1. Introduction

During recent decades, females have played a greater role in the labour market. Their labour force participation has increased massively in all developed countries since the 1960s. For example, 58% of women in Canada were employed in 2009, compared to only 42% in 1976 (Ferraio, 2010). The increasing trend in female labour force participation raises issues related to the condition of female workers. It is well acknowledged that wage differences between males and females have existed for a long time. Female workers usually earn a lower wage than their male counterparts.

Various factors are responsible for the wage differential between males and females. Differences in productivity-related characteristics between males and females may be attributed to different human capital endowments. Differences in education attainment, work experience, and other factors all lead to a male-female wage gap. In particular, females usually spend more time doing household tasks than males. Because of their main role in dealing with family matters, females in the labour market have shorter working time than males. Females may need to shrink their time in the labour market so that they have enough time to take care of children, to do cleaning, and to do various types of household tasks. They may favour a flexible working schedule because of their responsibilities in the household. Ferraio (2010) notes that the proportion of females who work part time is 26.9% in 2009, which is more than double the proportion of males. Consequently, female wages tend to be lower than male wages because of different productive characteristics. Furthermore, discrimination may also contribute to the difference in wages between males and females. Discrimination refers to different returns on productivity related characteristics between females and males.

Canada is one of the most important immigrant-receiving countries with a broad immigration policy. It attracts large quantities of immigrants because of its good economic conditions, advanced education, abundant work opportunities and other attractive circumstances. According to 2006 Census data, more than 6 million people were born outside of Canada among the 31 million total Canadian population. The proportion of immigrants, which is 19.8% of the population, is the highest in the last 75 years.

As it is the case for Canadians in general, female immigrants now play an increasingly important role in the labour market. According to Chui (2011), 80% of Canadian-born women and 95% of immigrant women were in the working age group (aged 15 and over) in 2006. Fifty-six percent of women in this working age group, who are immigrants, were in the labour force, accounting for 21% of Canadian total female labour force. From 2001 to 2006, the number of immigrant women increase by 16.8%, which is more than double the 7.4% increase for the Canadian-born women. Similarly to Canadian-born women and men, there is a wage gap between immigrant women and men. Chui (2011) notes that the earnings of working age immigrant women were 78% of those of immigrant men in 2005. Considering the increasing numbers of immigrants and females in the Canadian labour force, it is worthy to explore the gender wage differential among immigrants and Canadian-born workers.

This paper aims at comparing gender wage differentials among immigrants and native-born workers in Canada with public use microdata from the 2006 Census of Canada. As was done in other studies, estimations are made based on two samples: a sample of all workers who received wages, and a more restricted sample of full-time and full-year workers. Two models are used to study the wage gaps: a basic human capital earnings function that is estimated for both the immigrants and the Canadian-born, and an extended model for the immigrant sample that

adds some variables that are specific to them. One main finding is that the gender wage differentials are similar for the immigrants and the Canadian-born in both the all workers and full-time and full-year workers groups. Discrimination is found to possibly have a significant effect in explaining the wage gap between males and females for both the immigrants and the Canadian-born groups. The different return in schooling plays a larger effect on the gender wage gap for Canadian-born than for immigrants. In contrast, the effect of different return in work experience for immigrants is larger than that for Canadian-born.

This paper consists of the following sections. Section 2 reviews several studies that have investigated gender wage gaps for the population in general and for immigrants in particular. Section 3 provides information about the data set, the samples, and the models; the decomposition methodology is also introduced. Section 4 presents the analysis of the empirical results. Section 5 is the conclusion and the summary of main findings of this paper.

2. Literature Review

It is known that female workers have different wages than male workers. There is a large amount of economic literature that has focused on examining the reasons of the wage differential between males and females. The effects of factors, such as productivity-related characteristics, work experience, and marital status, have been explored in various studies. In general, studies have shown that the wage gap between male and female workers has been reduced to some extent over the last decades. Some of that literature has also examined the case of immigrants and native-born. This section surveys first the literature on wage differentials in general; it then considers explicitly the studies that concern immigrant males and females.

2.1 Studies on gender wage differentials

Oaxaca (1973) was among the first to investigate the causes of the wage differences between males and females by proposing a decomposition method that is now well known. The data used is retrieved from the 1967 Survey of Economic Opportunity. The author finds that the effects of discrimination play a significant role in explaining the wage gap between males and females. Differences in coefficients (sometimes called discrimination) contribute to more than 50% of the wage gap in the full-scale regressions, which is the original regression with controls for occupation, industry, and class of worker. It accounts for more than 70% of the wage gap in the personal characteristic regressions, which does not control for the above three variables. The results are consistent with those of studies that showed that female concentration in lower paying jobs and short work life expectancy are essential parts of the wage differentials between males and females.

Many other studies have used the decomposition method proposed by Oaxaca. In particular, the trends in the wage differential between males and females in Canada are explored in several studies.

Grenier and Joseph (1993) examine the evolution of the gender wage differential in Canada between 1970 and 1985. They decompose the wage differentials using the Oaxaca method. The data in the study are the individual public use samples of the 1971, 1981, and 1986 Canadian censuses. The authors find that the wage differential between males and females has decreased over time. Labour market discrimination against female workers is also reduced during that period, but discrimination decreased less than the gross wage differential.

Shannon and Kidd (2001) develop a methodology which aims at projecting the trend of the gender wage differential in Canada in the future. They use data from the Survey of Labour and

Income Dynamics together with Statistics Canada demographic projections. In their methodology, the wage structure is assumed to remain unchanged over time. This assumption means that the wage equation parameters will remain the same, at their 1994 levels. One of the results is that the high educational levels of females will tend to shrink the size of the gender wage gap over the period 1994 to 2031. In others words, the wage differential between females and males will decline because of improvement of the skills of females. Projections show that the pay convergence, which is the wage gap between males and females, will be about 22% to 37%. Nevertheless, they predict that there will still be a fairly large wage gap between males and females in 2031.

The above studies show that the gender wage differential has decreased and will continue to do so. According to Grenier and Joseph (1993), the gender wage gap was 81.9% for all workers and 50.6% for full-time full-year workers in 1970. This wage gap decreased to 63.5% for all workers and 41.6% for full-time full-year workers in 1985. Projections in the study of Shannon and Kidd (2001) suggest that the gender wage gap decrease further to 22% - 37% during the period 1994 to 2031. By and large, it is considered to be a good development that the gender wage differential is getting smaller and smaller as time goes on.

Various types of factors are responsible for the existence of the wage differential between males and females. Education attainment is an important one. In general, employees with a high education level get higher wages than those with a lower education level. Many studies have explored the relationships between education level and gender wage differentials.

Christie and Shannon (2001) examine gender differences in educational attainment and the relationship between those differences and the wage differentials. They analyse full-time and full-year Canadian workers using data from the public use subsamples of the 1986 and 1991

Canadian censuses. Besides information of the gender difference in education attainment, their paper includes gender differences in the field of study of post-secondary graduates. They conclude that different educational attainment does not have a significant effect on the gender wage differential in 1985 or 1990, but that differences in fields of study play an important role in explaining the wage gap.

Dougherty (2005) explores the reasons as to why education attainment plays a more significant role in affecting the earnings of females than those of males. The study uses data from U.S. National Longitudinal Survey of Youth 1979. The results show that return per year of schooling is approximately two percentage points larger for females than for males. The author concludes that years of schooling have a more important effect on female wages for two reasons. First, females improve their skills and productivity with more years of schooling. Second, the gender earning differential, which is caused by factors such as discrimination, preferences, and environment, is reduced when years of schooling increase. The author estimates that the effect from the second reason explains almost half of the difference in the returns to schooling.

In a recent study, Boudarbat and Connolly (2013) explore the trend in the wage differentials between females and males among post-secondary graduates in Canada between 1988 and 2007. The data come from Statistics Canada's National Graduates Survey (NGS) from the year 1988 to 2007. In addition to the standard Blinder-Oaxaca decomposition at the mean, they also do decompositions along the wage distribution using a method proposed by Firpo, Fortin, and Lemieux (2009) and Fortin, Lemieux, and Firpo (2010). They find that male graduates earn on average 6% to 14% more than female graduates between two and five years after graduation. The decomposition of the gender wage differential shows that only a small part of the differential is accounted for by different personal characteristics and job attributes. They

also find that women's wages are lower than men's at every point of the distribution. An interesting finding from their decomposition along the wage distribution is that the gender wage gap increases in the upper half of the distribution, while it is reduced in the lower half of the distribution. In other words, the wage gap among individuals with high wages is larger than that among individuals with low wages.

The factor of work experience is also important in affecting the wage gap between males and females. When estimating the effect of work experience on the gender wage gap, both Kidd and Shannon (1994) and Drolet (2001) mentioned that using actual work experience provides more accurate results than potential work experience, which is defined as age minus number of years of schooling minus six. It is because the latter lacks considerations of females' withdrawals from the labour force, limited working status and reduced working hours. This leads to the overestimation of work experience of females.

Kidd and Shannon (1994) explore the male-female wage gap in Canada by using data from 1989 Labour Market Activity Survey. They find that the magnitude of gender discrimination is sensitive to the estimate of work experience in the labour market. Using imputed actual experience measure instead of potential experience, the measured experience gap is higher, which increases the contribution of experience to the gap and decreases the contribution of discrimination. The same study also concludes that the observed male-female wage differential is almost entirely explained by the intra-occupational differences. The result shows that the proportion of intra-occupational difference is 29.5% of the male-female wage gap. Home time, which refers to time spent outside the work force, has a small effect on wages and occupational outcomes in Canada.

Kidd and Shannon (1996) further compare estimates of the gender wage differentials between Canada and Australia. The data for Canada is again from the 1989 Canadian Labour Market Activity Survey (LMAS) and the data for Australia is obtained from the 1989-90 Income Distribution Survey (IDS). They find that the gender wage differential in Canada is larger than in Australia. One of the reasons is that the union movement and the degree of centralization in wage determination in Canada are not as strong as in Australia. Also, the smaller gender wage differential in Australia is caused by the lower rates of return to schooling and experience in that country compared to Canada as well as by the small size of wage inequality.

Drolet (2001) estimates the effects of factors which have not been examined in earlier studies, due to lack of data. She uses the Survey of Labour and Income Dynamics (SLID) of 1997. First, the SLID gives a measure of actual labour market experience including information on working status (full-time or part-time) and weeks worked per year for all jobs. This actual work experience takes into account females' interruptions and limitations in the labour force. Second, the SLID offers information on job-related responsibilities such as supervisory positions and work-related tasks. Third, education attainment refers to the major field of study category for the highest completed level of post-secondary education. Finally, other factors, such as marital status, region and urban size class, firm size, and union status, are also included. The author finds that male workers have higher wages than female workers. The average hourly wage rate of females is between 84% and 89% of that of males. Decomposition techniques show that about 12% of the gender wage differential is explained by work experience differences between females and males. Differences between genders in supervision responsibilities and in the tasks performed explain another 5% of the gender wage differential. In general, males are more likely to have supervisory positions and to have additional responsibilities affecting promotion/pay and

deciding others' work. There is about one half to three-quarters of the gender wage gap that may be due to discrimination.

Baker and Drolet (2010) estimate the evolution of male-female wage differentials in Canada with data from five sources: the Survey of Work History (SWH) for 1981, the Survey of Union Membership (SUM) for 1984, the Labour Market Activity Survey (LMAS) for 1986-1990, the Survey of Labour and Income Dynamics (SLID) for 1993-1996, and the Labour Force Survey (LFS) for 1997-2008. They create a new time series which uses wage data, but not earnings data from earlier studies. The wage used in their paper is the hourly wage, which is the usual wages or salaries before taxes and other deductions divided by the number of hours. Wages more closely related to the price of labour, but earnings combine the price of labour with decisions of how much to work. Using the wage data, the female/male wage ratio is higher than that using earnings data. This wage-based ratio is 0.85 in 2006, which is similar to the result of Drolet (2001). The wage-based gender wage ratio has a stable trend over time while the earnings-based one does not.

Some articles have focused on summarizing results related to the gender wage differential in various countries in different studies. Gunderson (1989) surveys the literature on the earning gap between males and females. He explores the causes of the gender earning gap as well as the policies which can be implemented to deal with it. Gunderson concludes that discrimination plays an important role in the determination of the wage differential and of the occupational distributions between male and female workers. However, the effect of the discrimination on the earnings gap is smaller than that of occupational segregation based on the same job. In addition, different payments across establishments and industries and decisions made outside of the labour market also explain the gender earning gap. The former appears because payments for the same

job may be different in different firms. The latter may be caused by factors related to different household responsibilities, education, and work interruptions. Those factors limit the range of policies that could be effectively applied. The author then looks at the impacts of several policies. First, he concludes that policies on equal employment opportunities and policies on affirmative actions can be applied effectively. Second, efficient policies on dealing with wage and employment differences between males and females become more effective. Third, comparable worth policies have contributed to the shrinking of the gender earnings gap. Fourth, equal pay legislation is worthless under a complaints-based system for the same job and establishment. Finally, the increases in female wages which are induced by policy initiatives have small adverse employment effects.

Gunderson (2006) further investigates the issues related to wage differentials between males and females. Like in his earlier 1989 study, he begins with the description of the main empirical processes of measuring the gender wage differential. The author reaches the conclusion that competitive market forces are effective in shrinking the gender wage differential. In other words, competition plays a significant role in reducing the impact of discrimination. Furthermore, the combination of the competitive market forces and of technological improvements helps decrease the gender wage gap.

The results of the above literature show that the gender wage differentials have exhibited a decreasing trend during the past decades, and that this trend will continue in the future. The differences in wages between females and males are influenced by many factors. Among these, education attainment and work experience make significant impact on the gender wage gap. According to the above studies, females benefit more than males from higher education levels. Increasing education level helps in the reduction of the wage gap. Furthermore, the

decomposition of the wage gap indicates that discrimination in the labour force market still accounts for a significant part of the wage gap.

2.2 Studies on gender differentials within the immigrant population

Among the female workers, immigrants are playing an increasingly important role in the Canadian labour force market. A few studies which are related to the issue of the gender wage differential among immigrants and Canadian-born are discussed in this section. A recent report by the Toronto Immigrant Employment Data Initiative (TIEDI, 2012) provides information about immigrant women in the Canadian labour market. Compared with Canadian-born women, immigrant women tend to have higher unemployment rates, lower income, and lower labour force participation. The incidence of part-time employment is higher than that for immigrant men. In addition, according to this report, education attainment is closely related to the wage gap. The gender wage gap between immigrant men and women increases with education. Furthermore, language ability is also a factor that affects gender differences. Compared to the wages of immigrant women with poor language abilities, the wages of immigrant women with good language abilities are closer to those of men with similar language skills.

One of the first studies to explore the gender wage gap in the labour market among the immigrant and native-born in Canada is Tandon and Tandon (1977). The data used in their paper is the Public Use Sample of the 1971 Canadian Census of Population. They find that the gender wage gap among the Canadian-born is smaller than that among immigrants. The knowledge of the official languages is one of the possible reasons to explain this. The understatement of the productivity of female immigrants and the prejudice against immigrants by employers also account for the above difference. The gender wage differential among Canadian-born is reduced to about 32.8 percentage points when occupation, industry, and marital status are controlled for. And the gender wage differential among immigrants is reduced to about 39.4 percentage points.

Furthermore, the authors conclude that years of schooling, job training, and vocational training have smaller effects on the hourly wages of immigrants than on those of the Canadian-born.

Beach and Worswick (1993) investigate the existence of the double-negative effect, i.e. a gender effect and a birthplace effect, on female immigrants' earnings in Canada. The data used is from the 1973 Job Mobility Survey. They find that the time spent out of the labour market, which they call the home-time variable, plays an essential role in affecting the earnings. The effects of this home-time variable on earnings are similar for immigrant and Canadian-born females. They also find that the double-negative effect on earnings of female immigrants does not exist for all female immigrants. However, for female immigrants with high education attainment, the double-negative effect on earnings is large. Another conclusion is related to family investment strategy. They observe that married immigrant women are likely to support their husbands on Canadian-specific job skills at the beginning. The last conclusion is that the effect of years since migration for immigrant women is not statistically significant. In other words, the wage gap between immigrant women and Canadian-born women does not significantly change as time passes by.

Shamsuddin (1998) further investigates the issue of the double-negative effect on the earnings of immigrant women in Canada. Unlike Beach and Worswick (1993) focusing on all female immigrants, this study focuses only on married female Canadian immigrants. The data is obtained from the Statistics Canada microdata set entitled *Income (1983), Assets and Debts (1984) of Economic Families and Unattached Individuals*. Similarly to the definition in Beach and Worswick (1993), the combined effect of gender and place of birth on the earnings is related to the double-negative effect. The author finds that the size of the double-negative effect on female earnings is large, which accounts for 71% to 79% of the difference in mean log earnings.

Different productivity-related characteristics do not play a significant role in affecting the earning gap. Also, gender discrimination takes a larger portion in explaining the earnings gap than birthplace. The former explain 63% to 70% of the earnings gap, but the proportion that the latter can explain is less than 15%. According to this study, labour market assimilation of female immigrants is faster than that of male immigrants. These results are different from part of Beach and Worswick (1993)'s work that the double-negative effect on earnings does not exist for all female immigrants.

The above three studies focus on differences in earnings between females and males among immigrants and Canadian-born. Tandon and Tandon (1977) indicate in their study that the gender wage differential among immigrants is larger than that among Canadian-born. The wage gap among immigrants is 39.4 percentage points in the full-blown model while it is 32.8 percentage points among Canadian-born. This is reasonable because immigrants' language ability is relatively worse than that of the Canadian-born. Prejudice and underestimation of immigrants by employers are also responsible for the above difference. Findings on this issue by Shamsuddin (1998) and some findings by Beach and Worswick (1993) are consistent with Tandon and Tandon's result. Generally speaking, female immigrants have to suffer lower wages because of their gender and immigrant status. The rest of this paper is going to evaluate this issue with 2006 Census data. The next section introduces the data used for estimation and provides summary statistics for some selected variables.

3. Data, Methodology, and Model

In this paper, the data is retrieved from the 2006 Census of Canada public use microdata. The census is conducted every five years by Statistics Canada. It includes extensive information on demographic, social and economic characteristics of Canadians as well as information on families and family composition, such as the presence of children of different ages. The census identifies Canadian-born people and immigrants from various parts of the world.

Some restrictions are applied for the data used in this paper. I choose individuals between 25 and 64 years of age. Many individuals who are younger than 25 years old are students and most individuals who are older than 64 years old are retired. Therefore, the chosen group can be considered as the working age population. In addition, the population of interest consists of individuals who work for a wage and who are not self-employed. Individuals with no wages are excluded, as well as those whose annual wages are less than \$500 and more than \$200,000, who are considered as outliers. In order to make a clear-cut exploration of the gender wage differential in the rest of this paper, I use two groups. One of them includes only full-time and full-year workers, and the other group includes all workers. This distinction is the same as the one often made in the literature on gender wage differentials.

3.1 Estimation model

3.1.1 Dependent variable

This paper analyzes wage differential between females and males separately for immigrants and Canadian-born. The natural logarithm of the annual wage during the previous year is used as the dependent variable. It indicates the gross wages and salaries before the income tax, pensions, employment insurance, and other deductions.

3.1.2 Independent variable

The independent variables can be divided into seven groups: geographic, family composition, demographic, human capital, language, labour market activity, and immigration. First, I choose province to form the geographic group. I divide provinces into six categories based on where individuals live. Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick are combined to form the Atlantic Provinces. Manitoba and Saskatchewan are also combined and define the Prairies. The other provinces include Quebec, Ontario, Alberta, and British Columbia and they are classified individually. Ontario is chosen to be the reference group.

The family composition variables consist of the presence of children of different ages in the census family. I divide them into three categories: (1) no children, (2) at least one child aged 0 to 5, and (3) all the children aged 6 or over. The above variables are used to analyze the effects of the presence of pre-school children and of children at school on the wages of females and males. The category of no children is chosen as the reference group. The demographic factors include both the historical comparability indicator of marital status and sex. The first factor is divided into three groups. Divorced, separated, and widowed are combined into one group which is named “previously married”. Individuals who are now married or living in common-law define the second group which is named “married”. The last group includes those who never married, and it is the reference group. The second factor, sex, is used to divide the sample between female workers and male workers.

The human capital variables of years of schooling, work experience, and the square of work experience are generated based on the variables of age group and the highest education degree. I choose the midpoint of each five-year age group to get a continuous age variable. I also

set different years of schooling to different education levels. This is shown in Appendix Table A1. Work experience is then defined as age minus years of schooling minus 6. In addition, knowledge of the official languages is accounted for by a dummy variable that is equal to 1 if an individual has no ability in both languages, and equal to 0 otherwise.

The labour market activity variables include the number of weeks worked and part time working status. These two variables are used for the sample of all workers in Canada. I take the logged form for numbers of weeks worked. Working status is defined as a dummy variable. This dummy variable takes the value of one if an individual worked mainly part-time during the previous year, and it takes the value of zero for a full-time worker.

The immigration variables include year of immigration, place of birth, and location of post-secondary education. The number of years since migration is calculated from the year of immigration. For years of immigration from 1980 to 2005, the number of years since migration is 2005 minus the year of immigration. For years before 1979, year of immigration is in five year categories and I choose the midpoint of those categories. The places of birth of the respondents are divided into four groups: (1) Europe, (2) US, (3) Asia, and (4) Africa, other America/Oceania and Other. The group of immigrants who are born in Europe is used as the reference group. Location of post-secondary study of immigrants is used as the dummy variable. It is equal to 1 if an immigrant earned a post-secondary degree in Canada and to 0 otherwise.

3.2 Descriptive statistics

Table 1 provides summary statistics of some selected independent variables for both samples of all workers and full time-full year workers. Each group is divided into immigrants and Canadian-born. Among immigrants and Canadian-born, two subsamples are obtained separately based on gender.

Table 1: Summary statistics of immigrants and Canadian-born based on gender, Canada 2006

	<u>All workers</u>				<u>Full time- full year workers</u>			
	Immigrants		Canadian-born		Immigrants		Canadian-born	
	Female	Male	Female	Male	Female	Male	Female	Male
Years of schooling	13.8	13.9	13.4	13.0	13.8	14.0	13.6	13.2
Work experience	24.1	24.6	22.9	23.3	24.6	24.9	22.9	23.2
Weeks worked in 2005 (logged)								
Weeks worked	3.702	3.776	3.739	3.793	-----	-----	-----	-----
Part-time workers								
Part-time	0.199	0.061	0.208	0.055	-----	-----	-----	-----
Knowledge of official language								
Neither English nor French	0.033	0.027	0.000	0.000	0.024	0.020	0.000	0.000
Presence of children								
No children	0.321	0.332	0.427	0.460	0.331	0.321	0.450	0.437
Aged 0 to 5	0.150	0.186	0.143	0.154	0.117	0.186	0.108	0.167
Aged 6 and over only	0.530	0.482	0.430	0.386	0.552	0.493	0.442	0.396
Immigrant Variables:								
Location of post- secondary study								
Education in Canada	0.351	0.331	-----	-----	0.376	0.356	-----	-----
Place of birth of respondent								
Europe	0.315	0.326	-----	-----	0.334	0.350	-----	-----
US	0.040	0.033	-----	-----	0.041	0.036	-----	-----
Africa, other	0.218	0.209	-----	-----	0.219	0.208	-----	-----
America/Oceania and Other								
Asia	0.427	0.432	-----	-----	0.407	0.406	-----	-----
Years since migration	19.715	19.464	-----	-----	21.129	20.790	-----	-----
Wage (logged)	10.05	10.46	10.15	10.60	10.45	10.73	10.52	10.79
Sample size	28,971	29,066	120,860	121,231	15,679	19,487	70,358	85,320

Source: 2006 Census of Canada public use microdata

From the last row of Table 1, there is a total of 58,037 immigrants (28,971 females and 29,066 males) and 242,091 Canadian-born (120,860 females and 121,231 males) in the all workers group. For both females and males combined, the proportion of immigrants is 19.3% among all workers. This ratio is a bit lower for the full-time and full-year workers group and takes a value of 18.4%. These ratios show that immigrants are now a significant component of the Canadian labour force. The all workers group is divided almost equally between females and males. However, the full-time full-year group has a lower proportion of female workers, at 45.1%.

Looking first at the all workers group and comparing immigrants and Canadian-born, there are some differences in selected variables between females and males. When the value of years of schooling is 14, the education level refers to trade, apprenticeship, college or CEGEP certificates or diploma from a program of one year to two years (see Appendix table A1). Among the immigrants, the average years of schooling are 13.8 and 13.9 for females and males respectively. Note that females have a slightly lower education level than males, but the difference is only one tenth of a year. The work experience of female immigrants is 24.1, which is lower than that of males by half a year. Similarly, the number of weeks worked for females is also smaller than males. According to Table 1, females' log of weeks worked is 3.702, which is smaller than that of males by 7.4 percentage points. Table 1 shows that 19.9% of female immigrants work part time while the percentage of males is only 6.1%. The number of weeks worked and the higher proportion working part-time are consistent with the fact that females spend more time taking care of children and doing family things. Relatively few immigrants have poor official language ability, but the proportion of females who do not know any of the official languages is slightly higher than for males (3.3% compared to 2.7%). There are small

differences in the presence of children between females and males. 32.1% of females do not have children while the ratio for males is 33.2%. The percentage of females with children aged 0 to 5 years old is 15%, which is 3.6% less than that of males. However, 48.2% of males have children older than 6 years old, which is lower than the percentage of females under the same condition. The above numbers reflect the tendency for some females to withdraw completely from the labour market when they have young children and to return to work when the children are older.

Among the places of birth of the immigrants, Asia takes the largest percentage, at more than 40%. Furthermore, 35.1% of females received their post-secondary education degree in Canada, compared to 33.1 for males. Finally, the last row for the log of wage indicates that males tend to earn approximately 41% more than females.

For the Canadian-born in the all workers group, the average values of schooling of both females and males are slightly lower than those for immigrants. However, unlike the immigrants, the female Canadian-born workers have more schooling than their male counterparts. Like the immigrants, females Canadian-born workers have shorter work experience than males. Similarly to the immigrants, the weeks worked by females are shorter than those of males, while the proportion of females working part time is higher than that of males. Concerning the knowledge of the official languages, it is not surprising to find that virtually all Canadian-born know English or French. The ratio of males who do not have children is 46%, which is 3.3% larger than that of females. 15.4% of males have children between 0 and 5 years old, which is also larger than females. However, the ratio of males whose children are older than 6 years old is smaller than that of females. The relationships between those proportions are similar to those for the immigrants. However, immigrants are more likely to have children than the Canadian-born. Finally, the last row indicates that males earn approximately 45% more than females.

Now, looking at the full-time and full-year workers group, the information on some variables is different from that in the all workers group. Considering the presence of children for both immigrants and Canadian-born, the proportion of females who have no children is larger than that of their male counterparts. This relationship is the opposite from the one in the all workers group. The relationships between the other two proportions are similar to those in the all workers group. Both full-time and full-year immigrants and Canadian-born get higher wages than individuals of the same gender in the all workers group. Female immigrants earn 28% less than male immigrants, and female Canadian-born earn 27% less than male Canadian-born. These two wage gaps are lower than gaps for the all workers group.

To sum up, the above summary statistics provide different information between females and males with respect to selected variables. Comparisons show that female Canadian-born have a slightly higher education level than their male counterparts, but the relationship is inversed among immigrants. It is obvious that weeks worked by females are less than those by males, but the proportion of females with a part-time job is larger than that of males. Finally, the gender wage gaps between immigrants and Canadian-born are similar in both the all workers group and the full-time and full-year workers group.

3.3 Model

The model used in this study regresses the log of the wages, respectively for females and males, on the relevant independent variables for two samples: all workers and full-time and full-year workers. Two specifications are used: a basic human capital earnings function that is used for both immigrants and Canadian-born, and an extended specifications that adds specific immigration variables in the immigrant samples. The first specification is:

$$\ln(wage)_i = \beta_0 + X_i\gamma_i + \varepsilon_i$$

where $\ln(wage)_i$ is the logarithmic wage of individual i ; X_i is a vector of socio-economic characteristics, which includes years of schooling, work experience, the square of work experience, provinces, language ability, marital status, and the presence of children. In the all workers group, two other variables are added in X_i : the logarithm of weeks worked and part-time working status.

The second specification adds some immigrant specific variables to the above ones and it is used for immigrants only:

$$\ln(wage)_i = \beta_0 + X_i\gamma_i + Z_i\theta_i + \varepsilon_i$$

where $\ln(wage)_i$ and X_i are the same as in Model 1; Z_i is a vector of immigration specific variables, which includes place of birth, location of post-secondary education, and years since migration.

3.4 Decomposition Methodology

The Oaxaca decomposition of the wage differentials between male and female is used in this paper. Two separate regressions are run for females and males:

$$\text{Males: } \lnwage_i^m = X_i^m\beta^m + \varepsilon_i^m$$

$$\text{Females: } \lnwage_i^f = X_i^f\beta^f + \varepsilon_i^f$$

where \lnwage_i is the logarithm of wage of individual i , X_i is a vector of characteristics of individual i (including the Z_i 's in the second specification above), the β 's are vectors of regression coefficients and the ε_i are error terms; the indices m and f represents males and females respectively. The traditional Oaxaca decomposition of the average logarithmic gender wage differential is written as follows:

$$\overline{\lnwage^m} - \overline{\lnwage^f} = \overline{X^f}(\beta^m - \beta^f) + (\overline{X^m} - \overline{X^f})\beta^m$$

where the bars above the variables represents their average sample values. The first term on the right hand side indicates the contribution of the differences in regression coefficients (sometimes called labour market discrimination) in the explanation of the gender wage differential. The second term indicates the contribution of gender differences in the mean values of the productivity related characteristics.

4. Empirical results

4.1 Regression analysis for all workers

Table 2 presents the estimation results of selected OLS regression coefficients of the log of wage for both immigrants and Canadian-born in the all workers group. The complete results are shown in Appendix Table A3.

Table 2: Selected regression results for all workers, Canada 2006

	Immigrants				Canadian-born	
	Specification 1		Specification 2		Specification 1	
	Female	Male	Female	Male	Female	Male
Years of schooling	0.072*** (0.002)	0.050*** (0.001)	0.065*** (0.002)	0.048*** (0.001)	0.106*** (0.001)	0.065*** (0.001)
Work experience	0.030*** (0.002)	0.026*** (0.002)	0.024*** (0.002)	0.020*** (0.002)	0.034*** (0.001)	0.036*** (0.001)
Weeks worked in 2005 (logged)						
Weeks worked	0.826*** (0.008)	0.885*** (0.010)	0.792*** (0.008)	0.843*** (0.010)	0.806*** (0.004)	0.809*** (0.005)
Part-time workers						
Part-time	-0.702*** (0.010)	-0.877*** (0.018)	-0.710*** (0.010)	-0.864*** (0.017)	-0.740*** (0.005)	-0.924*** (0.008)
Knowledge of official language						
Neither English nor French	-0.294*** (0.023)	-0.427*** (0.026)	-0.107*** (0.023)	-0.220*** (0.026)	-0.187* (0.102)	-0.350*** (0.112)

Marital status						
<i>(Reference: Single)</i>						
Married	-0.063** (0.013)	0.115*** (0.014)	-0.014 (0.013)	0.168*** (0.014)	0.057*** (0.005)	0.253*** (0.005)
Previously married (Divorce/Separate/Widow)	-0.062** (0.017)	0.039* (0.021)	-0.047*** (0.016)	0.065*** (0.021)	0.010 (0.007)	0.137*** (0.008)
Presence of children						
<i>(Reference: No children)</i>						
Aged 0 to 5	-0.055*** (0.014)	0.003 (0.013)	-0.044*** (0.014)	0.047*** (0.013)	-0.054*** (0.006)	0.045*** (0.006)
Aged 6 and over only	-0.031*** (0.009)	-0.007 (0.010)	-0.018** (0.009)	0.027*** (0.010)	-0.038*** (0.004)	0.021*** (0.004)
Immigrant variables						
Location of post-secondary study						
Education in Canada	-----	-----	0.127*** (0.010)	0.079*** (0.010)	-----	-----
Years since migration						
	-----	-----	0.011*** (0.000)	0.010*** (0.000)	-----	-----
Constant	5.817 (0.043)	6.033 (0.048)	5.911 (0.043)	6.214 (0.047)	5.468 (0.021)	6.109 (0.021)
R-squared	0.459	0.380	0.492	0.420	0.490	0.428
F-statistics	1636.04	1184.39	1399.28	1051.49	7723.71	6033.25
Sample size	28,971	29,066	28,971	29,066	120,860	121,231

Notes: Standard errors are in the brackets. * significant at 10%. ** significant at 5%. *** significant at 1%. Other control variables include the square of work experience, provincial variables, and birthplace of respondents. The complete regression results are in Appendix Table A3.

Source: 2006 Census of Canada public use microdata

First of all, comparing the effect of schooling between females and males in both the immigrant and Canadian-born groups, years of schooling has a larger effect on female wages than on male wages. This is what studies usually find. For male immigrants in the first specification, one more year of schooling brings a 5% increase in the wage. This effect is 2.2 percentage points lower than that for female immigrants in the same subgroup. For the Canadian-born, the return to years of schooling is 0.106 for female and 0.065 for male. This means that

there is 4.1 percentage point difference in the increase of wage by education attainment between females and males. Years of schooling have a larger effect on the wages of the Canadian-born than on immigrants.

The coefficients of work experience show a relationship between work experience and the wage. Comparing female and male immigrants in both specifications, work experience has a slightly larger effect on the wages of females than of males. The differences are about 0.4% in each specification. However, the comparison between female and male Canadian-born shows that work experience has a slightly smaller effect on females than on males. Specifically, one more year of work experience increases the wage of female Canadian-born by about 3.4%, while the increase is 3.6% for males. In addition, the estimate coefficients of work experience for Canadian-born are slightly larger than those for immigrants.

The next variables are weeks worked and part time working status. The estimated coefficients of weeks worked indicate that working time has quite significant impacts on the wage. On average, a one percent increase in the number of weeks worked increases the wage by more than 0.8% for both female and male immigrants. For both immigrants and Canadian-born, the effect of working time on female's wage is larger than that on male's wage. However, the difference of the effect of weeks worked time for the Canadian-born is smaller than that for the immigrants. All the estimated coefficients of part time working status are negative. For the immigrants and Canadian-born as whole, female part-time workers are less penalized relative to full-time workers than their male counterparts. We also notice that immigrants who work part time get relatively higher wages compared to Canadian-born part-time workers.

The subsequent variable is official language ability. The negative estimated coefficients in all subgroups are consistent with our expectation that poor ability in either of Canadian official

languages will make considerable effects in decreasing the wage. This negative effect is larger for males than for females.

Marital status and the presence of children are two family-related variables that are expected to have different effects on the wages of females and males. The results show that being married negatively affects the wage of female immigrants in the first specification. This is consistent with our expectation, as females traditionally play a dual role in the household. When they are married, they need to divide their time and energy between work and family tasks. In contrast, compared with single male immigrants, male immigrants who are married have a large 16.8% increase in their wages. For female immigrants who are divorced, separated, or widowed, the negative effect is a 4.7% decrease in wage with the control of immigrant variables. For female Canadian-born, the effect of being married is positive, with an earning advantage of 5.7%. Even though marital status positively affects the wage of female Canadian-born, this positive effect is much smaller than the one of their male counterparts. Married male Canadian-born earns a huge 25.3% more than their singled male colleagues.

All the estimated coefficients for the presence of children show that having children reduces the wage of females in the labour market. In contrast, this effect is positive for males except for immigrants who have children aged 6 and over. This exception can be ignored because it is statistically insignificant. Similarly with our expectation for marital status, female workers with children have to spend more time taking care of children and doing family tasks. Conversely, male workers who have children may choose to become more active in the labour market because of increased responsibility. In the specification that controls for immigrant variables, female immigrants who have at least one child aged 0 to 5 suffer a 4.4% decrease in wage compared to those who have no children. The magnitude of this decrease is relatively

larger than that of female immigrants with children aged 6 and over. In contrast, males with the same condition experience positive effects of similar magnitudes. It is interesting to see that the negative effect of having children on the wage is slightly larger for female Canadian-born than for female immigrants.

With respect to immigrant specific variables, it can be seen that getting a post-secondary degree in Canada increases the wage by 12.7% for female and by 7.9% for male immigrants. Also, the number of years since migration brings a higher wage for both female and male immigrants. All of the above two relationships are consistent with our expectation and with the findings of the earlier literature.

To summarize, there are several interesting findings from the analysis in this section. First of all, the positive effect of education attainment on the female wages is stronger than that on male wages, but the difference is smaller for immigrants than for Canadian-born. The returns to schooling for both males and females are also higher for Canadian-born than for immigrants. Second, the increase in female immigrants' wage due to work experience is slightly larger than that of male immigrants, but the relationship is reversed for the Canadian-born. Third, the wage elasticity with respect to weeks worked is higher for females than for males. Female with part-time jobs also earn slightly more than their male counterparts. Fourth, knowing neither of the Canadian official language decreases the wage. Fifth, females who are not single and who have children suffer a decrease in wages. Lastly, the positive effect of a Canadian post-secondary degree is slightly larger for female immigrants than for males. Longer time since migration also brings benefits on wages of immigrants.

4.2 Regression analysis for full-time and full-year workers

Table 3 shows the estimated results of selected variables for individuals who have a full-

time and full-year job. The complete results are shown in Appendix Table A3. It can be observed that the signs of the estimated coefficients of all the variables are the same as those of the all workers group, but their magnitudes are different.

Table 3: Selected regression results for full-time and full-year worker, Canada 2006

	Immigrants				Canadian-born	
	Specification 1		Specification 2		Specification 1	
	Female	Male	Female	Male	Female	Male
Years of schooling	0.084*** (0.002)	0.060*** (0.002)	0.077*** (0.002)	0.058*** (0.002)	0.109*** (0.001)	0.071*** (0.001)
Work experience	0.027*** (0.002)	0.023*** (0.002)	0.022*** (0.002)	0.018*** (0.002)	0.036*** (0.001)	0.036*** (0.001)
Knowledge of official language						
Neither English nor French	-0.282*** (0.031)	-0.433*** (0.033)	-0.109*** (0.031)	-0.248*** (0.032)	-0.174 (0.118)	-0.301*** (0.116)
Marital status <i>(Reference: Single)</i>						
Married	-0.037** (0.015)	0.162*** (0.016)	-0.002 (0.014)	0.193*** (0.016)	0.039*** (0.006)	0.247*** (0.005)
Previously married (Divorce/Separate/Widow)	-0.049** (0.019)	0.079*** (0.024)	-0.044** (0.018)	0.085*** (0.023)	0.014* (0.008)	0.138*** (0.008)
Presence of children <i>(Reference: No children)</i>						
Aged 0 to 5	-0.102*** (0.017)	-0.016 (0.015)	-0.080*** (0.017)	0.025* (0.014)	-0.115*** (0.007)	0.400*** (0.006)
Aged 6 and over only	-0.037*** (0.011)	-0.010 (0.011)	-0.025** (0.010)	0.022** (0.010)	-0.049*** (0.005)	0.022*** (0.004)
Immigrant variables						
Location of post-secondary study						
Education in Canada	-----	-----	0.100*** (0.011)	0.075*** (0.011)	-----	-----
Years since migration	-----	-----	0.011*** (0.000)	0.009*** (0.000)	-----	-----

Constant	8.998 (0.038)	9.465 (0.035)	8.973 (0.038)	9.505 (0.035)	8.670 (0.017)	9.254 (0.014)
R-squared	0.154	0.115	0.218	0.175	0.207	0.175
F-statistics	219.02	194.75	242.53	229.84	1410.15	1391.81
Sample size	15,679	19,487	15,679	19,487	70,358	85,320

Notes: Standard errors are in the brackets. * significant at 10%. ** significant at 5%. *** significant at 1%. Other control variables include the square of work experience, provincial variables, and birthplace of respondents. The complete regression results are in Appendix Table A3.

Source: 2006 Census of Canada public use microdata

The estimation results for education attainment and work experience for full-time and full-year group show that the magnitudes of these two effects are larger than those for all workers group. Considering immigrants and Canadian-born as a whole, higher education has larger positive effects on the wage of females than that of males, as it was the case for the all workers group. However, for the effect of work experience, both Canadian-born females and males have the same coefficients, while the coefficient is slightly higher for females than for males among the immigrants.

Again, poor ability in the Canadian official languages negatively affects the wage. As in the previous case, this negative effect is larger for males than for females in each group. For instance, with the control of immigrant variables, male immigrants who are good at neither of the Canadian official languages have to suffer a 24.8% decrease in wages, which is larger than the 10.9% decrease for females. Similar to the results for the all workers group, marital status and presence of children have negative effects on the wage of females while for males, the effects are positive (but they are not significant in the specification without immigrant controls).

Considering the location of post-secondary study and years since migration, they have positive effects on the wages of immigrants. A Canadian post-secondary degree gives female immigrants higher wages compared with male immigrants. The difference is 2.5 percentage points, which is slightly smaller than that in the all workers group. Female and male immigrants

get similar benefits from the increase in migration duration. There is no significant difference in the effect of migration duration between this group and the all workers group.

To summarize, in the full-time and full-year workers group, female wages are more affected by education than male wages. The effect of work experience on female immigrant wage is slightly larger than that on male immigrant wage, while this effect is the same for female and male Canadian-born. Both the Canadian post-secondary degree and migration duration positively affect immigrant wages.

4.3 Decomposition of gender wage differentials

In order to provide a more comprehensive analysis of causes of the gender wage differential, I do the Oaxaca decomposition, as described in Section 3.4, of the gender wage gap respectively for the all workers group and the full-time and full-year workers group. The effects of the chosen variables on the gender wage differential are investigated. Table 4 presents the decomposition results of the gender wage differentials in each group. Results of the two specifications for immigrants are shown separately. Some variables are grouped to show the combined effects of groups of variables. For example, work experience and the square of work experience are combined as experience. The complete results for all the variables with standard errors are shown in Appendix Table A4.

Table 4: Decomposition results of gender wage differentials, Canada 2006

	<u>All workers</u>			<u>Full time- full year workers</u>		
	Immigrants		Canadian-born	Immigrants		Canadian-born
	Specification 1	Specification 2	Specification 1	Specification 1	Specification 2	Specification 1
Differential (in logs)	0.410	0.410	0.424	0.273	0.273	0.273
Total Explained	0.202	0.190	0.153	0.018	0.015	-0.017
% of differential	49.3	46.3	36.1	6.6	5.5	-6.2

Due to:						
Schooling	0.006	0.006	-0.029	0.008	0.007	-0.031
Experience	0.005	0.001	0.003	0.002	-0.000	0.003
Provinces	-0.002	-0.002	-0.000	-0.002	-0.002	0.004
Working time	0.187	0.182	0.184	----	----	----
Language	0.002	0.001	0.000	0.002	0.001	0.000
Marital status	0.004	0.006	-0.004	0.009	0.012	0.007
Children	0.000	0.000	-0.000	-0.001	0.000	0.001
Location of studies	----	-0.002	----	----	-0.001	----
Place of birth	----	0.000	----	----	0.002	----
Years since migration	----	-0.003	----	----	-0.003	----
Total unexplained	0.207	0.220	0.271	0.255	0.258	0.290
% of differential	50.5	53.7	63.9	93.4	94.5	106.2
Due to:						
Schooling	-0.294	-0.233	-0.554	-0.329	-0.275	-0.521
Experience	-0.057	-0.069	0.010	-0.060	-0.060	-0.001
Provinces	-0.004	-0.006	0.009	-0.004	-0.006	0.019
Working time	0.183	0.159	-0.027	----	----	----
Language	-0.004	-0.004	-0.000	-0.004	-0.003	-0.000
Marital status	0.146	0.151	0.152	0.130	0.161	0.220
Children	0.022	0.038	0.039	0.026	0.038	0.048
Location of studies	----	-0.017	----	----	-0.009	----
Place of birth	----	-0.082	----	----	-0.069	----
Years since migration	----	-0.019	----	----	-0.050	----
Constant	0.217	0.302	0.641	0.466	0.532	0.584

Notes: A positive (negative) entry means that the difference is to the advantage of males (females). The complete decomposition results with standard errors are in Appendix Table A4.

Source: 2006 Census of Canada public use microdata

Starting with the all workers group, the first row shows the total gender wage gaps among immigrants and Canadian-born. For the immigrants, the gender log wage differential is 0.41. In the first specification without the immigrant specific variables, the explained and unexplained parts are each about half of the total differential. As already mentioned, the explained part refers to the differences in the mean values of the productivity-related characteristics between females and males, while the unexplained part refers to differences in the regression coefficients. When

adding the immigrant specific variables in Specification 2, there is a small increase in the unexplained part. Looking at the variables in the explained part, the difference in the education level explains 0.6 percentage points, which is a small part of the gap. In contrast, the effect of working time (weeks worked and part-time status combined) is quite important. It explains more than 18 percentage points of the gender wage gap in both specifications. This follows from our earlier observation that, because of the unequal distribution of household tasks, women work fewer weeks and are more likely to work part-time than men. Therefore, most of the explained gender wage differential can be attributed to shorter working time by female immigrants. The mean differences in the other factors, including the immigrant specific ones, have small effects in explaining the gender wage differential for immigrants.

Differences in coefficients, or discrimination, explain the other half of the 41% gender wage gap. First, the difference in the coefficient of schooling explains between -29.4 percentage points and -23.3 percentage points of the wage gap respectively for the two specifications. Those negative numbers mean that females have an advantage with respect to returns to schooling, but this advantage is cleared by the constant term which is a large positive number. The constant term reflect the effects of omitted variables, which can include occupation, industrial sectors, motivation, etc. In the earlier section, the regression results showed that one more year of schooling has a larger effect on the wage of females than that of males. These two results are consistent with each other. Even though female immigrants have a higher returns to education than male immigrants, their wages are still lower than those of males. Second, differences in the coefficients of working time and marital status are also important parts of the unexplained wage gap. The former accounts for 18.3 percentage points and 15.9 percentage points of the wage gap in each specification respectively, while the coefficients of marital status account for 14.6

percentage points and 15.1 percentage points respectively. In the regression analysis, we noticed that marital status negatively affects female's wages, while it was not the case for males. Third, differences in the coefficients of experience, presence of children, and place of birth of immigrants also play a role in the unexplained part of the wage gap, but it is smaller than those of the above variables. According to the regression results, work experience had larger effects on immigrant female wages than male wages. Consequently, discrimination in the impact of experience shows that work experience supports females, but again this is cancelled by the large effect of the constant term. The effect of differences in returns for the presence of children on the wage gap is consistent with the related regression result in the earlier section, accounting for 2.2 percentage points and 3.8 percentage points in the two specifications respectively. Differences in the coefficients of the places of birth, location of studies and years since migration have small negative effects, meaning that those factors favour women. Finally, the effects of differences in returns for provinces and language ability are small.

Considering now the Canadian-born in the all workers group in Table 4, we observe that there is a 42.4% gender wage differential, which is very close to the differential among immigrants. However, the explained part for the Canadian-born is 15.3 percentage points, which is smaller than that for immigrants. Unlike for immigrants, education attainment explains a negative 2.9 percentage points, indicating that the education attainment favours females, as shown earlier. As it was the case for immigrants, the effect of working time is still a major factor in explaining the wage gap. Female Canadian-born are more likely to work part-time job and to work fewer weeks than males.

Looking at the differences in the coefficients, we find first that different returns to education attainment also account for a considerable part of the unexplained wage gap. The

negative -55.4 percentage points indicate a large advantage to females, but again this is cancelled by the constant term. This result is similar to the one for immigrants. Second, differences in the coefficients of weeks worked and part-time status have a negative effect of -2.7 percentage points; this is different from the immigrants where the number was positive. Therefore, female Canadian-born are favoured by the effect of working time, while female immigrants are penalized. With respect to differences in coefficients due to marital status, the effect is about the same as that for immigrants. Third, the effect of differences in the coefficients of experience is positive and smaller than that of immigrants. Only 1 percentage point of the wage gap is explained by the discrimination in experience for Canadian-born. However, it shows that males do better in work experience than females, while it was the opposite for immigrants. The effect of discrimination due to the presence of children has a similar magnitude for Canadian-born and for immigrants. Finally, discrimination in provinces and language ability explains a small portion of the wage gap. The difference in the coefficient of provinces favours males, while it is the opposite for immigrants.

The right portion of Table 4 presents the analysis for full-time and full-year workers. The gender wage gaps among immigrants and Canadian-born are smaller than those of the all workers group. Those gaps are the same for immigrants and Canadian-born, at 27.3% each. For immigrants, the explained part varies from 1.8 percentage points to 1.5 percentage points between the two specifications, meaning that most of the gender wage differential, more than 93% in each specification, is due to differences in the regression coefficients. Due to the fact that the time worked is the same for both genders, the impact of differences in productivity-related characteristics for the full-time and full-year workers group is much smaller than that for the all workers group.

As in the case of the all workers group, the effects of the difference in the coefficients of years of schooling on the wage gap in the total unexplained part are negative, at -32.9 percentage points and -27.5 percentage points for immigrants respectively in the two specifications. Even though female immigrants have an advantage with respect to returns to schooling, their wages are lower than those of men because of the cancellation by the constant term. Second, the magnitudes of the effect of differences in return for marital status are 13.0 and 16.1 percentage points respectively in each specification. This shows that male immigrants are strongly favoured by marital status, which is consistent with the regression results. Besides the above two impacts, differences in the regression coefficients of experience and presence of children also have relatively significant impacts in explaining the wage gap. Both of these results follow from our analysis of the regression results. Furthermore, the constant term in the unexplained part explains quite a large portion of the wage gap. The constant represents the payment for workers in the reference categories of the dummy variables. In general, males have a higher base payment than females.

Now considering the gender wage differential for Canadian-born full-time and full-year workers, we find that differences in coefficients play a more important role in the determination of the wage gap. In fact, it accounts for more than 100% of the total. The differences in the coefficients in years of schooling explains a large negative -52.1 percentage points of the gender wage gap, and marital status accounts for 22 percentage points. These two results are similar to those for immigrants. Females have an advantage with respect to schooling and males have an advantage with respect to marital status. However, the magnitudes of these impacts for Canadian-born are larger than for immigrants. Furthermore, work experience favours females, but the magnitude of this impact is smaller than that for immigrants. Males still have an

advantage with respect to the coefficients of presence of children, and this factor has a larger effect for the Canadian-born than for immigrants.

The comparison of the decomposition results among all workers and full-time and full-year workers provides some interesting findings. The gender wage differentials among immigrants and Canadian-born are close to each other in both groups of workers. It is known that immigrants usually earn a lower wage compared with Canadian-born under the same condition. As it is well known in the literature, female wages are negatively affected by differences in productivity-related characteristics and discrimination. Combining these two reasons, female immigrants are expected to get the lowest wage compared with male immigrants and Canadian-born. Thus, it could be argued that the gender wage differential among immigrants should be larger than that among Canadian-born. The results show that it is not the case. In the all workers group, the gender wage differential among immigrants is 41%, which is not significantly lower than 42.4% among Canadian-born. In the full-time and full-year workers group, there is no difference in the gender wage differential between immigrants and Canadian-born. These two results are different from those of Tandon and Tandon (1977) that immigrants have a larger gender wage gap than Canadian-born. However, these two results show consistency with some of the conclusions of Beach and Worswick (1993) that the double-negative effect on female immigrants' earnings, including the gender effect and the birthplace effect, does not exist for all female immigrants.

5. Conclusion

This paper explored the determinants of gender wage differentials for immigrants and Canadian-born workers aged 24 to 64. The data was accessed from the 2006 Census of Canada public use microdata. Regressions on the natural logarithm of the wage and decompositions of

the gender wage differential for all workers and full-time and full-year workers were done separately. The main findings can be summarized as follows.

First, there is an interesting finding that the wage gap between males and females for immigrants is very close to that for Canadian-born in the two samples. Specifically, the gender wage differential for immigrants is only slightly lower than that for Canadian-born in the all workers group. This result is not consistent with the perception that immigrants should have a higher gender wage differential than Canadian-born. In general, females earn less than their male counterparts and immigrants earn less than the Canadian-born.

Second, differences in coefficients (or discrimination) have a large effect on the gender wage differentials. Virtually, the totality of the gender wage differential for both immigrants and Canadian-born in the full-time and full-year workers sample is due to differences in coefficients. In the all workers group, discrimination accounts for about half of the wage gap for both immigrants and Canadian-born. Among the productivity-related characteristics, the differences in working time have the largest effects in explaining the wage gap between males and females.

The effects of selected determinants on the wage gap were also analyzed and the primary findings are listed below:

First, years of schooling have a strong relationship with wages. The effect of education on female wages is larger than on male wages in both the all workers group and the full-time and full-year workers group. For the same gender, this effect is also larger for the Canadian-born than for the immigrants. Education attainment only explains a small part of the gender wage differential for immigrants. It favours female Canadian-born and explains a relatively larger portion for the Canadian-born.

Second, work experience positively affects wages. For immigrants in each sample, the effect of work experience on females is slightly larger than that on males, while it is the opposite for the Canadian-born. Work experience explains a very small portion of the gender wage differential.

Third, the effects of weeks worked and part-time working status are consistent with the expectations. The increase of the wage due to longer working hours for females is smaller than for males. The decrease of the wage due to part-time work by females is also smaller than for males. Due to the different characteristics in working time and part-time working status between females and males, the combined effect of these two factors explains the largest part of the gender wage differential in the all workers group.

Fourth, family-related factors that influence the wage include marital status and the presence of children. Female immigrants who are not single earn less than those who are still single, but this is inverted for male immigrants. In contrast, female Canadian-born experience an increase in wage if they are not single, even though this increase is smaller than that for their male counterparts. With respect to the presence of children, it has a negative effect on female wages for both immigrants and Canadian-born, and for males, the effect is positive. The combined effect of family-related factors on the gender wage differential is small.

Finally, it is important to look at the immigrant specific variables. A Canadian post-secondary degree gives an immigrant a higher wage, especially for females. Compared with European immigrants, male immigrants from all the other parts of the world suffer a decrease in wage. However, the effect of birthplace on female immigrants differs by region. Compared with European immigrants, female immigrant from Asia have to suffer a lower wage, but those who come from the other two regions experience an increase in wage. As expected, longer time in

Canada brings higher wages to immigrants. All of these factors have small effects on explaining the gender wage differential.

The selected variables in this paper bring different sizes of the effects on the wage. Besides these factors, other related factors may also be important to the analysis of the wage differential between males and females. For example, occupation, industry and field of study could cause differences in the wages between females and males. Decomposition results show that a large part of the unexplained components of the gender wage gaps come from the differences in constant terms, which include the above factors. In further work, more related factors could be included, in addition to the current chosen factors, to analyse the gender wage differentials.

References

- Baker, M. & Drolet, M. (2010). 'A New View of the Male/Female Pay Gap.' *Canadian Public Policy*, 36(4), 429-464.
- Beach, C. M. & Worswick, C. (1993). 'Is There a Double-Negative Effect on the Earnings of Immigrant Women?' *Canadian Public Policy*, 19, 36-53.
- Boudarbat, B. & Connolly, M. (2013) 'The gender wage gap among recent post-secondary graduates in Canada: a distributional approach'. *Canadian Journal of Economics*, 46(3), 1037-1065.
- Christie, P. & Shannon, M. (2001). 'Educational attainment and the gender wage gap: evidence from the 1986 and 1991 Canadian censuses.' *Economics of Education Review*, 20, 165-180.
- Chui, T. (2011). 'Immigrant women.' *Statistics Canada. Women in Canada: a gender-based statistical report. 6th ed.* Ottawa: Statistics Canada.
- Dougherty, C. (2005). 'Why Are the Returns to Schooling Higher for Women than for Men?' *The Journal of Human Resources*, 40(4), 969-988.
- Drolet, M. (2001). 'The Persistent Gap: New Evidence on the Canadian Gender Wage Gap.' Business and Labour Market Analysis Division, Statistics Canada, Ottawa.
- Ferrao, V. (2010). 'Paid Work.' *Statistics Canada. Women in Canada: a gender-based statistical report. 6th ed.* Ottawa: Statistics Canada.
- Firpo, S., N. Fortin, and T. Lemieux (2009). 'Unconditional quantile regressions.' *Econometrica*, 77, 953-73.
- Fortin, N., T. Lemieux, and S. Firpo. (2010). 'Decomposition methods in economics.' National Bureau of Economic Research Working Paper No. 16-045.
- Grenier, G. & Joseph, T. (1993). 'The dynamics of gender-wage differentials and discrimination in Canada.' Working Paper #9312E, Department of Economics, University of Ottawa, Ottawa, Canada.

Grenier, G. & Nadeau, S. (2011). 'Immigrants Access to Work in Montreal and Toronto.' *Canadian Journal of Regional Science*, 34(1), 19-33.

Gunderson, M. (1989). 'Male-Female Wage Differentials and Policy Responses.' *Journal of Economic Literature*, 27(1), 46-72.

--- (2006). 'Viewpoint: Male-female wage differentials: how can that be?' *The Canadian Journal of Economics*, 39(1), 1-21.

Kidd, M. P. & Shannon, M. (1994). 'An Update and Extension of the Canadian Evidence on Gender Wage Differentials.' *The Canadian Journal of Economics*, 27(4), 918-938.

--- (1996). 'The Gender Wage Gap: A comparison of Australia and Canada.' *Industrial and Labor Relations Review*, 49(4), 729-746.

--- (2001). 'Projecting the Trend in the Canadian Gender Wage Gap 2001-2031: Will an increase in Female Education Acquisition and Commitment Be Enough?' *Canadian Public Policy*, 27(4), 447-467.

Oaxaca, R. (1973). 'Male-Female Wage Differentials in Urban Labor Markets.' *International Economic Review*, 14(3), 693-709.

Shamsuddin, A. F. M. (1998). 'The double-negative effect on the earnings of foreign-born females in Canada.' *Applied Economics*, 30, 1187-1201.

Tandon, B. B., & Tandon, K. K. (1977). 'Wage Differentials Between Native and Foreign Born Canadians.' *Industrial Relations*, 32(2), 202-215.

Toronto Immigrant Employment Data Initiative (TIEDI). (2012). *The 'gender gap': Findings and directions for addressing the position for immigrant women in the labour market.* Toronto, Ont.: Toronto Immigrant Employment Data Initiative.

Appendix

Table A1: Construction of the number of years of schooling variable

Highest certificate, degree or diploma obtained	Estimated years of schooling
No certificate	8
High school certificate	12
Trade, apprenticeship, college or CEGEP certificates or diploma from a program of three months to less than one year	13
Trade, apprenticeship, college or CEGEP certificates or diploma from a program of one year to two years	14
University certificate or diploma below bachelor level	15
University bachelor level	16
University certificate or diploma above bachelor level	17
Masters	18
Doctorate (including medicine, dentistry and similar programs)	22

Source: Grenier, Gilles, and Serge Nadeau (2011)

Table A2: Mean values of the variables for immigrant and Canadian-born workers, by gender,
Canada 2006

	<u>All workers</u>				<u>Full time- full year workers</u>			
	Immigrants		Canadian-born		Immigrants		Canadian-born	
	Female	Male	Female	Male	Female	Male	Female	Male
Years of schooling	13.8	13.9	13.4	13.0	13.8	14.0	13.6	13.2
Work experience	24.1	24.6	22.9	23.3	24.6	24.9	22.9	23.2
Work experience²	702.1	723.1	644.3	664.1	718.3	736.5	633.1	648.5
Provinces								
Atlantic provinces	0.005	0.005	0.092	0.092	0.005	0.005	0.088	0.079
Quebec	0.126	0.140	0.272	0.279	0.119	0.126	0.272	0.266
Ontario	0.581	0.579	0.340	0.332	0.615	0.598	0.357	0.357
Prairies(Manitoba & Saskatchewan)	0.024	0.024	0.074	0.070	0.023	0.026	0.074	0.073
Alberta	0.085	0.088	0.109	0.114	0.081	0.089	0.107	0.116
British Columbia	0.180	0.165	0.113	0.113	0.157	0.156	0.103	0.109
Weeks worked in 2005 (logged)								
Weeks worked	3.702	3.776	3.739	3.793	-----	-----	-----	-----
Part-time workers								
Part-time	0.199	0.061	0.208	0.055	-----	-----	-----	-----
Knowledge of official language								
Neither English nor French	0.033	0.027	0.000	0.000	0.024	0.020	0.000	0.000
Marital status								
Single	0.126	0.131	0.175	0.216	0.134	0.114	0.183	0.185
Married	0.752	0.810	0.689	0.702	0.739	0.830	0.672	0.737
Previously married (Divorce/Separate/Widow)	0.121	0.059	0.136	0.082	0.127	0.056	0.145	0.078
Presence of children								
No children	0.321	0.332	0.427	0.460	0.331	0.321	0.450	0.437
Aged 0 to 5	0.150	0.186	0.143	0.154	0.117	0.186	0.108	0.167
Aged 6 and over only	0.530	0.482	0.430	0.386	0.552	0.493	0.442	0.396

Immigrant Variables									
Location of post-secondary study									
Education in Canada	0.351	0.331	-----	-----	0.376	0.356	-----	-----	
Place of birth of respondent									
Europe	0.315	0.326	-----	-----	0.334	0.350	-----	-----	
US	0.040	0.033	-----	-----	0.041	0.036	-----	-----	
Africa, other	0.218	0.209	-----	-----	0.219	0.208	-----	-----	
America/Oceania and Other									
Asia	0.427	0.432	-----	-----	0.407	0.406	-----	-----	
Years since migration	19.715	19.464	-----	-----	21.129	20.790	-----	-----	
Wage (logged)	10.05	10.46	10.15	10.60	10.45	10.73	10.52	10.79	
Sample size	28,971	29,066	120,860	121,231	15,679	19,487	70,358	85,320	

Source: 2006 Census of Canada public use microdata

Table A3: Regression analysis for the log of wages, Canada 2006

	<u>All workers</u>						<u>Full time-full year workers</u>						
	Immigrants				Canadian-born		Immigrants				Canadian-born		
	Specification		Specification		Specification		Specification		Specification		Specification		
	1	2	1	2	1	2	1	2	1	2	1	2	
Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Years of schooling	0.072*** (0.002)	0.050*** (0.001)	0.065*** (0.002)	0.048*** (0.001)	0.106*** (0.001)	0.065*** (0.001)	0.084*** (0.002)	0.060*** (0.002)	0.077*** (0.002)	0.058*** (0.002)	0.109*** (0.001)	0.071*** (0.001)	
Work experience	0.030*** (0.002)	0.026*** (0.002)	0.024*** (0.002)	0.020*** (0.002)	0.034*** (0.001)	0.036*** (0.001)	0.027*** (0.002)	0.023*** (0.002)	0.022*** (0.002)	0.018*** (0.002)	0.036*** (0.001)	0.036*** (0.001)	
Work experience²	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	
Provinces <i>(Reference: Ontario)</i>													
Atlantic provinces	-0.064 (0.057)	0.014 (0.059)	-0.232*** (0.056)	-0.175*** (0.058)	-0.260*** (0.007)	-0.236*** (0.007)	-0.116* (0.065)	0.012 (0.064)	-0.294*** (0.063)	-0.154** (0.062)	-0.259*** (0.008)	-0.242*** (0.007)	
Quebec	-0.196*** (0.012)	-0.234*** (0.012)	-0.207*** (0.012)	-0.235*** (0.012)	-0.128*** (0.005)	-0.143*** (0.005)	-0.204*** (0.015)	-0.239*** (0.014)	-0.208*** (0.014)	-0.242*** (0.014)	-0.163*** (0.005)	-0.151*** (0.005)	
Prairies(Manitoba & Saskatchewan)	-0.117*** (0.027)	-0.131*** (0.027)	-0.149*** (0.026)	-0.173*** (0.026)	-0.126*** (0.008)	-0.148*** (0.007)	-0.172*** (0.031)	-0.151*** (0.029)	-0.210*** (0.030)	-0.192*** (0.028)	-0.156*** (0.008)	-0.152*** (0.008)	
Alberta	-0.028* (0.015)	0.038** (0.015)	-0.027* (0.014)	0.030** (0.014)	-0.010 (0.006)	0.089*** (0.006)	0.043** (0.017)	0.001 (0.016)	-0.044*** (0.017)	-0.004 (0.016)	-0.030*** (0.007)	0.062*** (0.006)	
British Columbia	-0.056*** (0.011)	-0.085*** (0.011)	-0.045*** (0.011)	-0.086*** (0.011)	-0.045*** (0.006)	-0.030*** (0.006)	-0.074*** (0.013)	-0.101*** (0.013)	-0.064*** (0.013)	-0.107*** (0.012)	-0.080*** (0.007)	-0.043*** (0.006)	
Weeks worked in 2005 (logged)													
Weeks worked	0.826*** (0.008)	0.885*** (0.010)	0.792*** (0.008)	0.843*** (0.010)	0.806*** (0.004)	0.809*** (0.005)	-----	-----	-----	-----	-----	-----	

Part-time workers												
Part-time	-0.702*** (0.010)	-0.877*** (0.018)	-0.710*** (0.010)	-0.864*** (0.017)	-0.740*** (0.005)	-0.924*** (0.008)	-----	-----	-----	-----	-----	-----
Knowledge of official language												
Neither English nor French	-0.294*** (0.023)	-0.427*** (0.026)	-0.107*** (0.023)	-0.220*** (0.026)	-0.187* (0.102)	-0.350*** (0.112)	-0.282*** (0.031)	-0.433*** (0.033)	-0.109*** (0.031)	-0.248*** (0.032)	-0.174 (0.118)	-0.301*** (0.116)
Marital status <i>(Reference: Single)</i>												
Married	-0.063*** (0.013)	0.115*** (0.014)	-0.014 (0.013)	0.168*** (0.014)	0.057*** (0.005)	0.253*** (0.005)	-0.037** (0.015)	0.162*** (0.016)	-0.002 (0.014)	0.193*** (0.016)	0.039*** (0.006)	0.247*** (0.005)
Previously married (Divorce/Separate/Widow)	-0.062*** (0.017)	0.039* (0.021)	-0.047*** (0.016)	0.065*** (0.021)	0.010 (0.007)	0.137*** (0.008)	-0.049** (0.019)	0.079*** (0.024)	-0.044** (0.018)	0.085*** (0.023)	0.014* (0.008)	0.138*** (0.008)
Presence of children <i>(Reference: No children)</i>												
Aged 0 to 5	-0.055*** (0.014)	0.003 (0.013)	-0.044*** (0.014)	0.047*** (0.013)	-0.054*** (0.006)	0.045*** (0.006)	-0.102*** (0.017)	-0.016 (0.015)	-0.080*** (0.017)	0.025* (0.014)	-0.115*** (0.007)	0.400*** (0.006)
Aged 6 and over only	-0.031*** (0.009)	-0.007 (0.010)	-0.018** (0.009)	0.027*** (0.010)	-0.038*** (0.004)	0.021*** (0.004)	-0.037*** (0.011)	-0.010 (0.011)	-0.025** (0.010)	0.022** (0.010)	-0.049*** (0.005)	0.022*** (0.004)
Immigrant variables												
Location of post-secondary study												
Education in Canada	-----	-----	0.127*** (0.010)	0.079*** (0.010)	-----	-----	-----	-----	0.100*** (0.011)	0.075*** (0.011)	-----	-----

Place of birth of respondent <i>(Reference: Europe)</i>												
US	----	----	0.032 (0.021)	-0.015 (0.023)	----	----	----	----	0.035 (0.024)	0.003 (0.024)	----	----
Africa, other	----	----	0.009 (0.011)	-0.123*** (0.012)	----	----	----	----	-0.027** (0.013)	-0.132*** (0.013)	----	----
America/Oceania and Other												
Asia	----	----	-0.063*** (0.010)	-0.183*** (0.010)	----	----	----	----	-0.072*** (0.012)	-0.182*** (0.011)	----	----
Years since migration	----	----	0.011*** (0.000)	0.010*** (0.000)	----	----	----	----	0.011*** (0.000)	0.009*** (0.000)	----	----
Constant	5.817 (0.043)	6.033 (0.048)	5.911 (0.043)	6.214 (0.047)	5.468 (0.021)	6.109 (0.021)	8.998 (0.038)	9.465 (0.035)	8.973 (0.038)	9.505 (0.035)	8.670 (0.017)	9.254 (0.014)
R-squared	0.459	0.380	0.492	0.420	0.490	0.428	0.154	0.115	0.218	0.175	0.207	0.175
F-statistics	1636.04	1184.39	1399.28	1051.49	7723.71	6033.25	219.02	194.75	242.53	229.84	1410.15	1391.81
Sample size	28,971	29,066	28,971	29,066	120,860	121,231	15,679	19,487	15,679	19,487	70,358	85,320

Notes: Standard errors are in the brackets. * significant at 10%. ** significant at 5%. *** significant at 1%.

Source: 2006 Census of Canada public use microdata

Table A4: Detailed decomposition of the gender wage differentials, Canada 2006

	<u>All workers</u>			<u>Full time- full year workers</u>		
	Immigrants		Canadian-born	Immigrants		Canadian-born
	Specification 1	Specification 2	Specification 1	Specification 1	Specification 2	Specification 1
Differential (in logs)	0.410*** (0.008)	0.410*** (0.008)	0.424*** (0.003)	0.273*** (0.007)	0.273*** (0.007)	0.273*** (0.003)
Total Explained	0.202*** (0.006)	0.190*** (0.006)	0.153*** (0.003)	0.018*** (0.003)	0.015*** (0.003)	-0.017*** (0.001)
% of differential	49.3	46.3	36.1	6.6	5.5	-6.2
Due to:						
Years of schooling	0.006*** (0.001)	0.006*** (0.001)	-0.029*** (0.001)	0.008*** (0.002)	0.007*** (0.002)	-0.031*** (0.001)
Work experience	0.012*** (0.003)	0.009*** (0.002)	0.014*** (0.002)	0.008*** (0.003)	0.006*** (0.002)	0.011*** (0.002)
Work experience²	-0.007*** (0.002)	-0.008*** (0.002)	-0.011*** (0.001)	-0.006*** (0.002)	-0.006*** (0.002)	-0.009*** (0.001)
Provinces						
<i>(Reference: Ontario)</i>						
Atlantic provinces	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.002*** (0.000)
Quebec	0.001*** (0.001)	-0.003*** (0.001)	-0.001*** (0.000)	-0.002* (0.001)	-0.002* (0.001)	0.001*** (0.000)
Prairies(Manitoba & Saskatchewan)	-0.000 (0.000)	-0.000 (0.000)	0.000*** (0.000)	-0.000 (0.000)	-0.001 (0.000)	0.000 (0.000)
Alberta	0.000 (0.000)	0.000 (0.000)	0.000*** (0.000)	0.000 (0.000)	-0.000 (0.000)	0.001*** (0.000)
British Columbia	0.001*** (0.000)	0.001*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000*** (0.000)
Weeks worked in 2005 (logged)						
Weeks worked	0.065*** (0.004)	0.062*** (0.003)	0.043*** (0.001)	-----	-----	-----
Part-time workers						
Part-time	0.122*** (0.003)	0.120*** (0.003)	0.141*** (0.002)	-----	-----	-----

Knowledge of official language						
Neither English nor French	0.002*** (0.001)	0.001*** (0.000)	0.000 (0.000)	0.002** (0.001)	0.001** (0.000)	0.000 (0.000)
Marital status <i>(Reference: Single)</i>						
Married	0.007*** (0.001)	0.010*** (0.001)	0.003*** (0.000)	0.015*** (0.002)	0.018*** (0.002)	0.016*** (0.001)
Previously married (Divorce/Separate/Widow)	-0.002* (0.001)	-0.004*** (0.001)	-0.007*** (0.000)	-0.006*** (0.002)	-0.006*** (0.002)	-0.009*** (0.001)
Presence of children <i>(Reference: No Children)</i>						
Aged 0 to 5	0.000 (0.000)	0.002*** (0.000)	0.000*** (0.000)	-0.001 (0.001)	0.002* (0.001)	0.002*** (0.000)
Aged 6 and over only	0.000 (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	0.001 (0.001)	-0.001** (0.001)	-0.001*** (0.000)
Immigrant Variables						
Location of post-secondary study						
Education in Canada	-----	-0.002*** (0.000)	-----	-----	-0.001*** (0.000)	-----
Place of birth of respondent <i>(Reference: Europe)</i>						
US	-----	0.000 (0.000)	-----	-----	-0.000 (0.000)	-----
Africa, other America/Oceania and other	-----	0.001** (0.000)	-----	-----	0.001** (0.001)	-----
Asia	-----	-0.001 (0.001)	-----	-----	0.000 (0.001)	-----
Years since migration	-----	-0.003** (0.001)	-----	-----	-0.003** (0.001)	-----

Total unexplained	0.207***	0.220***	0.271***	0.255***	0.258***	0.290***
	(0.006)	(0.006)	(0.003)	(0.007)	(0.007)	(0.003)
% of differential	50.5	53.7	63.9	93.4	94.5	106.2
Due to:						
Years of schooling	-0.294***	-0.233***	-0.554***	-0.329***	-0.275***	-0.521***
	(0.030)	(0.030)	(0.014)	(0.034)	(0.034)	(0.016)
Work experience	-0.091	-0.098*	0.039	-0.088	-0.096	0.006
	(0.060)	(0.059)	(0.025)	(0.071)	(0.070)	(0.028)
Work experience²	0.034	0.029	-0.029**	0.025	0.036	-0.003
	(0.034)	(0.033)	(0.014)	(0.040)	(0.039)	(0.016)
Provinces						
<i>(Reference: Ontario)</i>						
Atlantic provinces	0.000	0.000	0.002**	0.001	0.001	0.001
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)
Quebec	-0.005**	-0.004	-0.004**	-0.004*	-0.004*	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Prairies(Manitoba & Saskatchewan)	-0.000	-0.001	-0.002**	0.001	0.004	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Alberta	0.006***	0.005***	0.011**	0.004*	0.003*	0.010***
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)
British Columbia	-0.005*	-0.007***	0.002*	-0.004	-0.007**	0.004***
	(0.003)	(0.003)	(0.001)	(0.003)	(0.003)	(0.001)
Weeks worked in 2005 (logged)						
Weeks worked	0.218***	0.190***	0.011	-----	-----	-----
	(0.047)	(0.046)	(0.023)			
Part-time workers						
Part-time	-0.035***	-0.031***	-0.038***	-----	-----	-----
	(0.004)	(0.004)	(0.002)			
Knowledge of official language						
Neither English nor French	-0.004***	-0.004***	-0.000	-0.004***	-0.003***	-0.000
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)

Marital status						
<i>(Reference: Single)</i>						
Married	0.134*** (0.014)	0.137*** (0.014)	0.135*** (0.005)	0.147*** (0.016)	0.145*** (0.016)	0.139*** (0.005)
Previously married (Divorce/Separate/Wi- dow)	0.012*** (0.003)	0.014*** (0.003)	0.017*** (0.001)	0.016*** (0.004)	0.016*** (0.004)	0.018*** (0.002)
Presence of children						
<i>(Reference: No Children)</i>						
Aged 0 to 5	0.009*** (0.003)	0.014*** (0.003)	0.014*** (0.001)	0.010*** (0.003)	0.012*** (0.003)	0.017*** (0.001)
Aged 6 and over only	0.013* (0.007)	0.024*** (0.007)	0.025*** (0.003)	0.015* (0.008)	0.026*** (0.008)	0.031*** (0.003)
Immigrant Variables						
Location of post- secondary study						
Education in Canada	-----	-0.017*** (0.005)	-----	-----	-0.009 (0.006)	-----
Place of birth of respondent						
<i>(Reference: Europe)</i>						
US	-----	-0.002 (0.001)	-----	-----	-0.001 (0.001)	-----
Africa, other America/Oceania and other	-----	-0.029*** (0.004)	-----	-----	-0.023*** (0.004)	-----
Asia	-----	-0.051*** (0.004)	-----	-----	-0.045*** (0.007)	-----
Years since migration	-----	-0.019 (0.012)	-----	-----	-0.050*** (0.014)	-----
Constant	0.217 (0.065)	0.302 (0.064)	0.641 (0.030)	0.466 (0.052)	0.532 (0.052)	0.584 (0.022)

Notes: Standard errors are in the brackets. * significant at 10%. ** significant at 5%. *** significant at 1%. A positive (negative) entry means that the difference is to the advantage of males (females).

Source: 2006 Census of Canada public use microdata