

DO IMMIGRANT NEW MOTHERS USE MATERNITY AND PARENTAL LEAVE
BENEFIT DIFFERENTLY FROM NATIVE NEW MOTHERS? EVIDENCE FROM
CANADA

by

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ABSTRACT

The main research question in this thesis is do immigrant new mothers use maternity and parental leave benefit differently from native new mothers. I use Employment Insurance Coverage Survey micro data from 2000 to 2009 and fixed effect models to investigate the different weeks taken by new mothers and the different amount of benefits received during the leave period between immigrant new mothers and native new mothers. The results in my thesis show that immigrant new mothers received lower amount of benefit during the leave than native new mothers. There are no significant differences by the duration of the leave have taken between immigrant and native new mothers. I also find that the higher education a new mother received before they were pregnant, the higher benefit amount they could receive.

Keywords: maternity and parental leave benefit, immigration, immigrant new mothers, native new mothers, Canada.

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Chapter 1. Introduction

The maternity and parental benefit system provides some time off for new parents to take care of their newborns or new adoptions. This benefit system has a big impact on labour participation of female labour market. Without a sufficient period of the maternity and parental leave, some new mothers will choose to leave the labour force. The work skills and human capital that they have accumulated are lost. It also has a strongly impact of the child's health and mental development. Maternity and parental leave encourages new mothers give breast feeding which benefits babies and cost less than commercial milk alternatives. Every coin has two sides. The maternity and parental benefit system usually only covers part of the previous income to help new parents with their financial problem. It is hard to balance the time off and funds to raise a baby.

Canada provides a unique opportunity for studying the different usage of maternity and parental benefits between immigrant and native new mothers. Canada is often considered as a country of immigrants because millions of newcomers have settled here and built lives. According to Statistics Canada, Canada had a foreign-born population of about 6,775,800 people in 2011. They represented 20.6% of the total population. Asia was Canada's largest source of immigrants during the past five years. A high proportion of immigrants in population provides a good opportunity to evaluate their response to the maternity and parental leave policies. However, there is not much literature discussing the immigrant new mothers' behavior change based on maternity and parental policies. Maternity and parental benefits have shown to affect fertility and employment participation rates in previous studies. Rafael Lalive and Josef Zweimuller (2009) find that increasing parental leave increases the fertility rate strongly in short run based on

Australia database. Donna S. Lero (2003) provides a summary and reference to some other studies of the impact of the parental leave on children's healthy. The contribution of my study is filling this research gap and provides evidence for the government to adjust maternity and parental policies to serve both native and immigrant new parents better.

The parental benefit policies are consisted by two parts: unpaid leaves of absence, and benefits payments while on maternity or parental leave. I will discuss Canadian maternity and parental leave legislation in detail in Section 2. If the new mothers are qualified, the policies of maternity and parental leave are same for both immigrant new parents and Canadian-born new parents. Base on this situation, I would like to investigate whether there are differences in the duration of the use of the maternity and parental leave and the amount of benefits they received between immigrants and Canadian-born parents. In this study, I hypothesize that immigrant new mothers will use maternity and parental benefits differently from native new mothers. The duration of the leave taken by native mothers will be longer than immigrant new mothers. Immigrant new mothers will receive smaller cheque for each payment than Canadian-born new mothers. The reason I put up the hypothesis is because immigrant new mothers face more challenges than native new mothers. Usually the new immigrants have a language barrier and culture shock which make it harder to find well-paid jobs. The benefit payments are related to new parents' previous income. What is more, Immigrant parents in Canada usually have less support by families and relatives than Canadian-born parents. After immigrant new mothers gave birth, they need more money to raise the baby. So they might have to go back to work earlier. With the result of this thesis, the government

and policy makers could adjust employment rates and labor force participation by laying down appropriate parental and maternity leave policies.

I performed my empirical analysis by using Employment Insurance Coverage Survey micro data from 2000 to 2009. I used fixed effect models to investigate whether the weeks taken by new mothers and the amount of benefits received during the leave period are differential between immigrant new mothers and native new mothers. I controlled the characteristics of new mothers such as age, education level, occupation, and economic family type in my model. The results in my thesis show that immigrant new mothers received lower amount of benefit during the leave than native new mothers. No significant results show that the duration of the leave taken by immigrant new mothers is shorter than native new mothers. Furthermore, I find that the higher education a new mother received before they pregnant, the higher benefit amount they could receive.

This paper is organized as follows: section 2 describes the maternity and parental leave legislation in Canada; section 3 reviews current literatures on the topic of maternity and parental benefit; section 4 describes the database and the sample I used to test my hypothesis; section 5 presents the econometric specification which is a fixed effect model; results I obtained from the regression could be found in section 6; section 7 offers the conclusion if the thesis.

Chapter 2. Background and Literature Review

This section provides the institutional background of the Canadian Maternity and Parental benefits system. In 1971, Canada's first program of paid leave for taking care of the children appeared. Mothers with 20 or more insurable weeks could claim up to 15 weeks of benefits. Almost two decades later, in 1990, 10 weeks of parental leave were added. These could be used by either parent or split between them. Another significant change was in December, 2000, with increased parental leave benefits from 10 to 35 weeks, effectively increasing the total maternity and parental paid leave time from six months to one year. As well, the threshold for eligibility was lowered from 700 to 600 hours of insurable employment. The rate of benefit remained unchanged at 55% of prior weekly insurable earnings up to a set maximum (Katherine Marshall, 2003). Since January 1st, 2006, the Province of Quebec is responsible for providing maternity, paternity leave, parental and adoption benefits to residents of Quebec through a program called the Quebec Parental Insurance Plan (QPIP) offered by the Ministry of Employment and Social Solidarity of Quebec (MESSQ) (Service Canada).

Currently, the Canadian Parental Benefits system is becoming the leader of the English-speaking world. It is generally constituted by two parts: unpaid leaves of absence, and benefits payments while on maternity or parental leave. Unpaid leaves are granted by provincial and federal employment standard legislation. The Employment Insurance System provides the benefit payments.

Provincial and Federal Employment Standards give employees the right to time off during and after their pregnancy in order to take care of the newborns or newly adopted children (Canada Labor Code). There are two kinds of legal leave for new parents:

Maternity leave, and Parental Leave. Maternity leave is created for women who are expecting to give birth. This allows new mothers take time away from their work while the employers holding their job open after the leave. Parental leave is offered to new parents who are caring for newborns or new adopted children. Parental leave policies are fashioned from ideas about the proper role of the state in “the family”. The biggest feature of parental leave is gender neutrality, which means both parents can benefit from it. However, it is overwhelmingly taken up by mothers rather than fathers. In Quebec, there is another leave only for expectant fathers called Paternity Leave, which is provided by the Quebec Parental Insurance Plan (QPIP).

Provincial legislation only provides job-protected absence from work. However employees could receive some payments during their absence through the Canadian Employment Insurance (EI) program. Maternity or Parental benefits under EI pay 55% of the average insured earnings to expectant parents. This will pay a maximum of \$501 per week. Low-income families can receive a higher rate more than 55%. The benefits can be paid for a maximum of 15 weeks for Maternity leave and 35 weeks for Parental leave. In order to receive these parental benefits, new parents must be eligible for Employment Insurance program. To qualify, people must have worked for 600 hours in the past 52 weeks or since the start of the last EI claim. They need to pay EI premiums and meet the specific criteria for receiving maternity or parental benefits. To receive maternity benefits, expectant mothers should proof their pregnancy by signing a statement declaring the expected due date or the actual date of birth. To receive parental benefits, biological parents need to provide the same statement. For adoption parents,

they need to sign a statement declaring the child's date of placement for the purposes of the adoption and name and address if the adoption is authorized (Service Canada).

Maternity leave can begin up to 8 weeks before the due date but will not be paid later than 17 weeks following the actual or expected date (whichever is later). If the pregnancy terminates within the first 19 weeks, it is considered an illness under EI and sickness benefits may be paid. If the pregnancy terminates in the 20th week or later, maternity benefits can still be considered. Biological or adoptive parents could receive payment within 52 weeks following the birth date (Service Canada). A summary of maximum job-protected leave available in the ten provinces and the time limitation can be found in Table 1. We can see from the table, there is slightly different of the maternity and parental leave policies between provinces. Quebec is the most generous Province in Canada which provides 18 weeks of paid maternity leave and 52 weeks of paid parental leave. The new parents must take the leave within 70 weeks. While Alberta only provide 15 weeks of paid maternity leave and 37 weeks of paid parental leave (35 weeks with maternity leave). Most of the provinces provide 17 weeks of paid maternity leave and 37 weeks of paid parental leave.

Previous studies of the topic of maternity and parental leave were basically analyzed it in three aspects: the impact of parental leave benefits on female labor supply, how the policy change affects fertility, and the relationship between parental leave benefit and young children's health. There are a few articles talked about how immigrants used maternity and parental leave.

Many studies show that parental leave has a significant effect on female labor supply. By using the Survey of Labor and Income Dynamics, Adrienne ten Cate (2000) find that maternity leave and parental leave policies have an impact on the duration for women of leave after childbirth. What is more, Adrienne finds that “the availability of job protected leave is a key factor in determining whether a women returns to the same job after childbirth” (Adrienne, 2000). Three years later, Adrienne (2003) used the Canadian Labor Force Survey data from 1976 to 2000, and he found that maternity leave and parental leave policy reduces the gap between the employment probabilities of women with young children versus women with older children. Previous literature showed that the maternity and parental leave have a big influence on the employment for female. Phipps (2000) uses micro data from 1988, 1989 and 1990 Labor Market Activities Survey to study some behavioral implications of the Canadian maternity and parental benefits system. Then she finds that fertility behavior is not significantly influenced by the availability of the maternity and parental leave. Those papers above discuss the impact of Canada parental benefits. Merz (2004) “investigates the trends and changes in the structural composition of women’s weekly market hours worked in former West-Germany using aggregate time-series data from the German micro census from 1957 until 2002” (Merz, 2004, Abstract). He finds that since the mid-1970s, “the EP-ratio has steadily risen among female employees of all marital statuses, whereas the weekly hours worked per female employee have declined” (Merz, 2004). The articles I mentioned above expound the importance of maternity and parental leave and the impact on female labour market.

The effects of the policy change of maternity and parental leave has studied by many economists. Based on the policy change in Quebec, 2006, Marshall (2008) finds that with the increasing of legal leave weeks and higher benefit rates, fathers in Quebec still decrease their average leave time from 13 weeks in 2005 to 7 weeks in 2006. Lalive and Uller (2009) analyzes the effects of changes in the durations of paid, job-protected parental leave on mothers' higher-order fertility and post birth labor market careers. They find that "mothers who give birth to their first child immediately after the reform has more second children than preform mothers, and that extended decrease in the short run, but not in the long run" (Lalive and Uler, 2009).

There are some articles comparing the maternity and parental policy among countries. Eileen and William (1994) compared the different and similar points of maternity and parental leave in the United States and Canada. They described how judicial decisions and legislation have shaped the availability of maternity and parental leave employment benefits. This is an important reference for me to compare the impact of different maternity leave and parental leave through difference provinces in Canada. Baker (1997) examined three policy responses to pregnant workers, with program details from Canada, Sweden, and the United States. He finds that neither labour force participation rates nor family roles are altered substantially by choice of the model, but statutory protections do make working women's lives easier and improve their economic status. Gornic and Schmitt (2010) access the design of parental leave policies operating in 21 high-income countries. They analyze how these countries vary with respect to the generosity of their parental leave policies, the extent to which their policy designs are gender egalitarian; and the ways in which these two crucial dimensions are inter-related.

The study finds that public policies in all studies in 21 countries protect at least one parent's job for a period of weeks, months or years following the birth or adoption of a child. Four countries stand out as having policies that are both generous and gender egalitarian: Finland, Norway, Sweden and Greece.

Several articles studied that how the maternity and parental leave benefits immigrant. Vikman (2013) evaluates how access to paid parental leave affects labor market entrance for immigrating mothers with small children. To evaluate the differences in the assimilation processes for those who have access to the parental leave benefit and those who do not, Swedish administration data is used on a difference-in-difference specification to control for both times in the country and the age of the youngest children. The result shows that the labor market entrance is delayed for mothers and they are less likely to be a part of the labor force for up to seven years after their residence permit if they had access to parental leave benefits then they came to Sweden.

My study uses annual data from 2000 to 2009 to investigate the different usage of maternity and parental benefit between immigrant and native parents in Canada. My data is recent than the previous studies.

Chapter 3. Data

This study uses the data of the Employment Insurance Coverage Survey from 2000 to 2009 to test my hypothesis. Employment Insurance Coverage Survey (EICS) is a sub-sample of respondents of the Labor Force Survey (LFS). “The Employment Insurance Coverage Survey sheds light on the coverage of the employment insurance program. It provides a picture of who does or does not have access to employment insurance regular benefits as well as maternity and parental benefits. ” (Statcan.gc.ca) EICS use the method of a telephone interview four times a year, namely in April-May, July-August, November-December and January-February. The participation in this survey is voluntary. Data is collected directly from survey respondents. “Survey data pertaining to maternity and parental benefits answer questions on the proportion of mothers of an infant who received maternity and parental benefits, the reason why some mothers do not receive benefits and about sharing parental benefits with their spouse. The survey also allows looking at the timing and circumstances related to return to work, the income adequacy of households with young children and more” (Statcan.gc.ca). The response rate is 86%.

As the introduction of the EICS above, this survey asks a lot of questions about 19 contents which include mother status, last work, job information, parental benefits for mothers, parental benefits for fathers, plans to return to work, and work after birth and so. My favorite part in this survey is “Socio-demographics (SD)”. This part asks questions about the special background about new parents such as “were you born in Canada”. This part allows me to distinguish if the new parent is a Canadian-born or an immigrant, and how long they have stayed in Canada. From “Confirm Type (TY)” and the “Last Work (LW)” part, I can get information about new mothers’ employment status.

“Employment Insurance (EI)” part provides information about whether new parents are eligible for the parental benefits. This database also includes some basic information about new mothers. I could control for other important factors such as family situation, education, age, and provinces. “Parental Benefits for Mothers (PM)” provides information about how many weeks of leave new mothers are taken and how much money they can get during the leaves which I will be using the dependent variable.

Table 2 shows the sample characteristics of new mothers. There are 5950 women who applied for maternity or parental benefits during 2000 to 2009 in my sample, and 10.44 percent of them are immigrants (618 women). Ontario, Quebec, British Columbia and Alberta are the four most populous provinces, same as my sample. But for immigrants, over 50 percent of new mothers live in Ontario, and 16.18 percent of them live in British Columbia. A significant majority of women with infants were in the 25 to 44 age range (85.07 percent of native new mothers, 90.60 percent of immigrant new mothers). Canadian born new mother from age 15 to 24 years old is 5.4 percent higher than immigrant new mothers.

The proportion of new mothers with a university degree is 35.33 percent of immigrants, which is 4.88 percent higher than native new mothers. However, new native mothers most likely go to college or have a diploma. There is little proportion of mothers who did not graduate from high school. For new native and immigrant mothers, business, finance, administration is the most popular occupation (28.13% and 28.48% respectively), followed by Sales and service. Most of them work as permanent full-time workers. Only a few of them are self-employed, 0.09% for native mothers and 0.99% for immigrant mothers.

From the part of household income, I can find that 3.04% more immigrant new mothers are in lower income family than new native mothers. However, 6.06% fewer immigrant new mothers are in higher income family than natives. In both groups, most new mothers are living with a husband or partner, as expected, at least one of them earn money.

The benefit week's new mothers have taken for leave and the benefit amount they received during the leave are two dependent variables in my regression. The range of benefit weeks is one to fifty weeks. Zero to four hundred and fifty dollars is the range of benefit amount new mothers could receive weekly. Table 3 shows the statistic summary of these two variables. In average, native new mothers take 27.5 weeks while immigrant new mothers take 26.7 weeks. Immigrant new mothers could receive 278.64 CAD per week in average which is 13.93CAD lower than natives.

Even though this database includes variables I am interested in, there are several limitations. The main limitation of this database is the missing variables. This database doesn't include any information about the characteristics of husband or partner of the new mothers. I cannot control the effect of the father's income and other characteristics on new mothers' behavior. What is more, I cannot distinguish the immigrants by their countries of origin. Missing variable might cause bias of my results. Small number of observations is another limitation. After dropping data about other type of benefit, my sample only has 5950 observations. Around 590 observations for each year, and 10.5 percent of them are immigrants.

Chapter 4. Econometric Model

In order to answer the question, do immigrant new mothers use maternity and parental leave differently from native new mothers, I use fixed effect model to examine it. The fixed effect regression that I run is the following:

$$\text{Benefit Amount}_{itp} = \alpha + \beta_1 \text{Immigr} + \sum \beta_2 \text{Age} + \sum \beta_3 \text{Educ} + \sum \beta_4 \gamma_y + \sum \beta_5 \gamma_p + \beta X_i + \varepsilon_{itp} \dots \text{Eq}(1)$$

$$\text{Benefit Weeks}_{itp} = \alpha + \beta_1 \text{Immigr} + \sum \beta_2 \text{Age} + \sum \beta_3 \text{Educ} + \sum \beta_4 \gamma_y + \sum \beta_5 \gamma_p + \beta X_i + \varepsilon_{itp} \dots \text{Eq}(2)$$

Where $\text{Benefit Amount}_{itp}$ is the weeks of maternity and parental leave the new mother i have taken in survey year t , from province p . $\text{Benefit Week}_{itp}$ is the weekly benefit amount received by new mother i , at survey year t , from province p . α is the intercept for my regression. β is the coefficient of explanation variables. Immigr is a dummy variable. It equals to one if the mother is an immigrant; otherwise, it equals to zero. Age is the age of the new mother when the survey occurred. Educ is the highest education level the new mother received before she was pregnant. γ_y is the survey year that the new mother attended. γ_p is the province the new mother comes from. ε_{itp} is the error term.

I use benefit weeks of maternity and parental leave each mother has taken and the weekly benefit amount she has received as dependent variable. Immigrant is my key independent variable. Age, Education, Survey Year, and Province the individual came from are the four main control variables. All of them are dummy variables. Age is divided into three catalogs: 15 to 24 years old, 25-45 years old, above 45 years old. β_2 is a vector which include β_2^a , β_2^b , and β_2^c for each age group. For example, if the mother's

age is 27, she is in the second group. In this case, β_2^b is the only coefficient of β_2 for that individual, β_2^a and β_2^c are equal to zero. The coefficient β_2 will give us the result of how an individual's age affect the duration of maternity and parental leave they want to take. The coefficient of Education, Survey years, and Provinces are vector as well. Education level is categorized into 6 dummy variables, defined as the highest level of studies respondents completed by survey year. The year dummy variables are from 2000 to 2009. In order to investigate how much other individual characteristics affect the results and to increase the precision of the results, I add X_i into model. X_i includes seven dummy variables of economic family type, seven dummy variables of occupation, seven dummy variable of work type, and a cardinal variable of household's annually income. In order to get the different use of maternity and parental benefits in a percentage level, I rerun the regression using the log of benefit weeks they took and log of benefit amount they received as dependent variable. The control variables are the same as above.

There are some control variables I should include such as the characteristics of their husbands or partners, and the number of children they already have. The monthly income of the spouse could affect the length of maternity and parental leave that new mothers plan to take. Because of the lack of data, I cannot include these variables in my model. As a consequence, the results might be biased.

Chapter 5. Results

In Table 4 and Table 5, I present the result of Equation (1) and Equation (2). Table 4 presents fixed effect results of the different benefit amount new mothers received, and Table 5 presents the results of the benefit weeks they have taken of the maternity and parental leave. Because of the multicollinearity, each group of dummy variables drops one dummy variable as base group. The coefficient in the table shows the results comparative with the omitted group. The group of 15-25 years old is the base group for age dummy variables. The base group of education is “below grade 9”. The base group of economic family type is “unattached single” which means the family structure is single parent with no income. “Management” is the base group for Occupation dummy variables.

Table 4 reports the results of estimating Equation (1) where the dependent variable is the benefit payment new mothers received during the leave. Column (1) shows the results of the basic fixed effect model. I control age, education, and number of year dummy variables only. My key independent variable is “Immigrant” which tells whether the new mother is immigrant or not. The coefficient of shows that the immigrant new mothers receive 16.13 CAD less than native new mother weekly with 99% significant level. The coefficient of age dummy variables shows a significant result of the 99% confident interval. If the new mother is in the 25-44 age group, she should receive 54.86 CAD more than base group (15-24 age group). For the education part, all the coefficient of each group shows the result compared with the group of “less than grade 9” which is the base group. If the new mother’s highest education level is grade 13, she receives 33.41 CND more than new mothers in base group at 90% significant level. If the new

mother in the group of “some post- graduate”, she receives 40.14 CAD more than base group. If the new mother has a certificate or diploma, or graduate from community college, she could receive 70.53 CAD more than those in base group. The new mothers with Bachelor, Master, or PhD degree could receive 119.8 CAD more than those in the base group at 99% significant level. So the higher education the new mothers obtain before they were pregnant, the more benefit payment they could receive during the maternity and parental leave. In column (2), I control the region dummy variable. The Employment Insurance Coverage Survey dataset divide Canada into six regions: British Columbia, Alberta, Manitoba and Saskatchewan, Ontario, Quebec, and Atlantic region which include New Brunswick, Nova Scotia, and Prince Edward Island. The coefficient of “Immigrant” decrease to -23.61 which means that the immigrant new mothers receive 23.61 CAD less than native new mothers weekly. This is significant of the 99% confidence interval. Other coefficients do not change much compared with column (1).

Household income is controlled in the column (3). I took the midpoints of each group interval instead of the group number. The coefficient is 0.0101 with 99% significant level which means that if the household income increases 100 Canadian dollars, the payment of benefit will increase 1 Canadian dollar. By controlling the household income, the coefficient of “Immigrant” increase to -14.37 with 99% significant level. In column (4), economic family type is included. There are six kinds of economic family type: attached individual, dual earner couple, single earner couple, non-earner couple, single parent, and other family. “Attached individual is the base group. There is no significant result in “Economics of family type”. Economic of family type cannot affect the benefit amount new mothers received. Then I controlled the work type

in column (5). There are six catalogs for the work types: permanent full-time, permanent part-time, permanent work hour unknown, seasonal worker, self-employed, and not permanent other work. The coefficient of “Immigrant” comes back to -16.34 which is similar to the result I get in column (1). In column (6), I bring the occupation of the new mother into the regression. The base group of occupation is management. If the new mother worked in the health and natural applied sciences industry, she could receive 12.77 dollars more than base group new mothers in her weekly benefit payment. The new mother who is a sales and service will receive 56 Canadian dollars less than those in base group. If the new mothers in the occupation group of “trade, transport, equipment, operators, primary processing, manufacturing, utilities”, they will receive 25.98CAD less than those in management group. The results of occupation I interpreted above are at 99% significant level.

Table 5 presents the results that the differences of weeks of maternity and parental leave that new mother have taken between immigrant new mothers and Canadian-born new mothers. On average, the immigrant new mothers take 0.88 weeks less than native new mothers. But the result is not significant in all columns. However, the age of new mothers strongly influence the weeks they have taken. Older new mothers usually take a longer maternity and parental leave. The new mothers in 25-44 age group take 1.8 weeks longer than new mothers under 25 years old and the new mother older than 45 years old take 10 weeks longer than those under 25 years old. Education and Occupation are not significant effect factors on the benefit weeks the new mothers have taken in all columns. In column (4), the coefficient of economic family type shows some significant results. The new mothers in “dual earner couple” take 10.47 weeks more than base group at a 95%

significant level. If the new mothers come from “single earner couple” group, they will take 11.70 more weeks longer than base group at 95% significant level. The new mother who is single parent of the new baby will take 12.26 weeks longer than the new mothers in the base group.

In Table 6 and Table 7, I provide the table of percentage change of benefit amount and benefit weeks if the mother is immigrant. Table 6 shows the different benefit amount received by immigrant new mothers and native new mothers in a percentage level. In column (1), the results show that the immigrant new mother receive 5.63% less than native new mothers which is significant at 99% confident level. If the new mother is in the 25-44 age group, she receive 24.3% higher amount of benefit payment than new mothers in base group. The new mothers in “some post-graduate” education group could receive 25.3% more than those in base group at 90% significant level. The new mothers with a university degree could receive 55.2% higher payment than those only graduate from grade 9 at a 99% significant level. In column (2), after I controlled the region dummy variable, the coefficient of “Immigrant” becomes -0.0845. The immigrant new mothers receive 8.45% less of benefit payment weekly at 99% significant level. Household income is controlled in the column (3). In column (4), economic family type is included. Then I controlled the work type in column (5). In column (6), I bring the occupation of the new mother into the regression. The coefficient of “immigrant” is around -0.05 which means that the immigrant new mothers receive 5% less benefit payment than native new mothers. As I introduce more control variable, the difference between the new mothers in older age group and those in younger age group is lessening from 2.39% in column (2) to 1.43% in column (6). The coefficient of each education

group have same trend through the columns. Table 7 shows that the immigrant new mothers took 5% fewer weeks than native new mothers. However, the result is only significant in column (1) and column (4) at 90% confidence interval.

Overall, I find that immigrant new parents receive less benefit payment than native new mothers. But no significant results indicate that the immigrant new mothers take shorter maternity and parental leave than Canadian born new mothers. The new mothers in older age group not only take longer leave but also receive more benefit payment than younger new mothers. The higher education level the new mothers achieved before they were pregnant, the more benefit payment they could receive weekly and the longer leave they are willing to take.

In further studies, I could control the characteristics of husband or partner of the new mothers. The results will be more accurate after controlling the effect of the father's income and other characteristics. Furthermore, I could include the original counties of immigrant new mothers to evaluate the effect of the motherland on the behavior of a new mother's usage of maternity and parental leave. Because of the lack of data, I cannot include these variables in this thesis. This could cause the bias of my estimator.

Chapter 6. Conclusion

This study provides an evidence of the different usage of maternity and parental leave benefit system between immigrant new mothers and native new mothers. I use cross section data from Employment Insurance Coverage Survey database 2000 to 2009. I find that there is a significant difference in usage of maternity and parental leave between immigrant and native new parents. The immigrant new mother received 16.13 CAD lower amounts of benefit than native new mother weekly, and the leave is 0.88 weeks shorter for immigrant new parents than native new parents. Comes to the characteristics of new mothers, the older the new mother is, or the more education the new mother received, the longer they will take for maternity and parental leave. New mothers working in health and natural applied sciences industry received higher amounts of benefit than others.

These findings have important implications for policy makers. Since that immigrant new parent takes shorter leave period, government could provide some benefit such as discount day care to help them out.

Appendix A: Tables

Table 1, Length and date restrictions for Maternity and Parental Leaves (weeks)

	Maternity Leave		Parental Leave and Adoption Leave	
	Length	Earliest start Date before Due Date	Length	When leave must be taken in relation to birth or adoption
Federal	17	17	37	Within 52 weeks
Alberta	15	12	35 with maternity leave 37 otherwise	Within 52 weeks
British Columbia	17	11	37	Within 52 weeks
Manitoba	17	17	37	Within 1 year
New Brunswick	17	17	37	Within 52 weeks
Newfoundland and Labrador	17	17	35	Within 35 weeks
Northwest Territories	17	17	37	Within 1 year
Nova Scotia	17	16	35 with maternity leave 52 otherwise	Within 52 weeks
Nunavut	17	17	37	Within 52 weeks
Ontario	17	17	37	Within 52 weeks
Prince Edward Island	17	11	35	Within 52 weeks
Quebec	18	16	52	Within 70 weeks
Saskatchewan	18	12	37	Within 1 year
Yukon	17	17	37	Within 52 weeks

Service Canada

Table 2 Percentages of variables for Immigrant and Native new parents

	Natives	Immigrants
All women (%)	89.56	10.44
Province (%)		
Atlantic region ¹	18.86	2.75
Quebec	13.39	4.53
Ontario	30.62	51.46
Manitoba and Saskatchewan	18.10	11.49
Alberta	10.84	13.59
British Columbia	8.18	16.18
Age (%)		
15-24 year	14.88	9.40
25-44 year	85.07	90.60
45 years and older	0.06	0
Education (%)		
Grade 8 or lower	0.17	1.62
Grade 9-13, non-graduate	4.78	5.83
Grade 11-13, graduate	14.63	19.45
Some post-graduate	7.72	6.65
Trades certificate or diploma, community university, university certificate below Bachelor's	42.25	31.12
University graduate (Bachelor's, Master's, PhD)	30.45	35.33
Occupation (%)		
Management	5.87	2.98
Business, finance, administration	28.13	28.48
Health and natural applied sciences	17.66	16.56
Social science, education, government, religion, art, sport, culture, recreation	19.40	14.24
Trade, transport, equipment operators, primary processing, manufacturing, utilities	5.10	11.92
Sales and service	23.85	25.83
Work type (%)		
Permanent full-time	75.72	80.40
Permanent part-time	13.74	8.90
Permanent, work hour unknown	0.04	0.16
Not permanent, seasonal worker	1.47	0.82
Not permanent, other	8.08	8.73
Self-employed	0.95	0.99
Household Income (per annum) (%)		
Less than \$20,000	10.42	13.46
\$20,000 - \$40,000	36.34	41.31
\$40,000 - \$60,000	27.55	25.61
More than \$60,000	25.69	19.63
Type of economic family (%)		
Unattached individual	0.30	0.16
Husband-wife, dual earner couple	75.12	63.64
Husband-wife, single earner couple	16.34	26.14
Husband-wife, non-earner couple	1.66	3.41
Single-parent	6.29	5.52
Other family	0.28	1.14
Sample Size	5,303	618

Table 3 describe statistic of dependent variable

		Observati ons	Mean	Standard Deviation	Min	Max
Benefit	Natives	5032	27.51987	14.1179	1	50
Weeks	Immigrants	580	26.73276	14.32545	1	50
Benefit Amount	Natives	5017	292.5645	96.01886	0	450
	Immigrants	587	278.6354	95.12679	0	450

Table 4 Fixed Effect Regression on Benefit Amount new mothers received

	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant	-16.13*** (3.828)	-23.61*** (3.879)	-14.37*** (3.917)	-12.92*** (3.894)	-16.34*** (3.749)	-14.68*** (3.647)
Age						
25-44	54.86*** (3.480)	54.00*** (3.472)	42.88*** (3.565)	41.79*** (3.598)	37.29*** (3.427)	32.25*** (3.279)
45 and older	12.59 (19.82)	27.74* (14.88)				
Education						
Grade 9-13, non-graduate	11.99 (19.54)	10.73 (19.21)	8.722 (20.11)	6.744 (19.74)	6.367 (15.54)	27.98* (15.63)
Grade 11-13, graduate	33.41* (19.11)	32.53* (18.81)	27.77 (19.67)	25.72 (19.30)	26.05* (15.03)	40.31*** (15.16)
Some post-graduate	40.14** (19.34)	39.24** (19.05)	27.32 (19.86)	25.08 (19.48)	27.51* (15.24)	39.42** (15.39)
Below Bachelor's ¹	70.53*** (18.96)	70.58*** (18.65)	59.19*** (19.53)	56.48*** (19.16)	58.83*** (14.87)	58.90*** (15.06)
University graduate ²	119.8*** (18.97)	119.8*** (18.67)	93.92*** (19.59)	91.06*** (19.21)	92.14*** (14.94)	85.57*** (15.20)
Household Income			0.0101*** (0.000467)	0.00996*** (0.000480)	0.00883*** (0.000465)	0.00764*** (0.000453)
Economic family type						
Dual earner couple				-35.06 (37.16)	-29.96 (33.03)	-5.869 (35.64)
Single earner couple				-52.11 (37.22)	-46.22 (33.06)	-19.05 (35.67)
Non-earner couple				-44.59 (38.09)	-37.12 (33.92)	-10.20 (36.39)
Single-parent				-29.12 (37.35)	-26.19 (33.21)	0.609 (35.80)
Other family				-30.56 (41.23)	-35.56 (37.53)	-5.197 (38.48)
Occupation ³						

Group1						-14.28***
						(4.592)
Group 2						12.77***
						(4.704)
Group 3						-2.590
						(4.684)
Group 4						-25.98***
						(6.232)
Group 5						-56.11***
						(4.962)
Year ⁴	Yes	Yes	Yes	Yes	Yes	Yes
Region ⁵	No	Yes	Yes	Yes	Yes	Yes
Work Type ⁶	No	No	No	No	Yes	Yes
Constant	149.6***	131.4***	127.4***	168.4***	180.1***	178.0***
	(19.61)	(19.47)	(20.23)	(42.10)	(36.59)	(39.26)
Observations	5,597	5,597	5,212	5,202	5,147	5,118
R-squared	0.265	0.280	0.338	0.342	0.403	0.454

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note:

1. *Below Bachelor's: trades certificate or diploma, community college, and university certificate, etc.*
2. *University degree: Bachelor's, Master's, and PhD*
3. *Occupation:*
Group 1: business, finance, administration
Group 2: health and natural applied sciences
Group 3: social science, education, government, religion, art, sport, culture, recreation
Group 4: trade, transport, equipment, operators, primary processing, manufacturing, utilities
Group 5: sales and service
4. *Year: survey year dummy variables, from 2000 to 2009*
5. *Region: Quebec, Ontario, Manitoba and Saskatchewan, Alberta, British Columbia, Atlantic region*
6. *Work type: Permanent full-time worker, Permanent part-time worker, Permanent work hour unknown worker, Not permanent seasonal worker, Not permanent other, and Self-employed*

Table 5, Fixed Effect Regression on Benefit weeks new mothers have taken

	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant new parents	-0.868 (0.614)	-0.825 (0.628)	-0.888 (0.657)	-1.024 (0.658)	-0.876 (0.662)	-0.793 (0.669)
Age						
25-44	2.017*** (0.585)	2.048*** (0.586)	1.456** (0.613)	1.722*** (0.619)	1.753*** (0.621)	1.927*** (0.623)
45 and older	9.864*** (0.841)	10.04*** (0.945)				
Education						
Grade 9-13, non-graduate	0.743 (3.666)	0.723 (3.673)	2.430 (3.782)	2.483 (3.761)	2.727 (4.001)	1.907 (4.222)
Grade 11-13, graduate	0.333 (3.599)	0.315 (3.608)	1.649 (3.713)	1.914 (3.691)	2.094 (3.931)	1.463 (4.158)
Some post-graduate	0.286 (3.635)	0.227 (3.643)	1.320 (3.749)	1.572 (3.726)	1.752 (3.964)	1.266 (4.193)
Below Bachelor's	-0.628 (3.584)	-0.591 (3.590)	0.596 (3.695)	0.978 (3.672)	1.149 (3.912)	0.728 (4.147)
University graduate (Bachelor's, Master's, PhD)	-1.473 (3.588)	-1.452 (3.596)	-0.167 (3.707)	0.261 (3.684)	0.394 (3.924)	-0.294 (4.165)
Household Income			-0.000127 (8.24e-05)	-7.05e-05 (8.46e-05)	-4.68e-05 (8.55e-05)	-1.24e-05 (8.66e-05)
Economic family type						
Dual earner couple				10.47** (4.852)	10.81** (4.378)	9.711** (4.476)
Single earner couple				11.70** (4.867)	12.06*** (4.389)	10.91** (4.490)
Non-earner couple				13.42*** (5.051)	13.81*** (4.605)	12.59*** (4.705)
Single-parent				12.26** (4.895)	12.90*** (4.427)	11.80*** (4.528)
Other family				9.420 (6.206)	9.993* (5.854)	8.780 (5.890)

		Occupation					
	Group 1						-0.464 (0.880)
	Group 2						-0.651 (0.926)
	Group 3						0.974 (0.918)
	Group 4						0.564 (1.180)
	Group 5						0.644 (0.919)
<hr/>							
	Year	Yes	Yes	Yes	Yes	Yes	Yes
	Region	No	Yes	Yes	Yes	Yes	Yes
	Work Type	No	No	No	No	Yes	Yes
<hr/>							
	Constant	17.73*** (3.615)	17.64*** (3.652)	17.18*** (3.756)	5.593 (6.121)	4.709 (5.921)	6.141 (6.196)
	Observations	5,604	5,604	5,167	5,159	5,103	5,072
	R-squared	0.049	0.050	0.050	0.053	0.054	0.056

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note:

Occupation:

Group 1: business, finance, administration

Group 2: health and natural applied sciences

Group 3: social science, education, government, religion, art, sport, culture, recreation

Group 4: trade, transport, equipment, operators, primary processing, manufacturing, utilities

Group 5: sales and service

Year: survey year dummy variables, from 2000 to 2009

Region: Quebec, Ontario, Manitoba and Saskatchewan, Alberta, British Columbia, Atlantic region

Work type: Permanent full-time worker, Permanent part-time worker, Permanent work hour unknown worker, Not permanent seasonal worker, Not permanent other, and Self-employed

Table 6, OLS Regression on log benefit amount

	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant	-0.0563*** (0.0170)	-0.0845*** (0.0172)	-0.0485*** (0.0174)	-0.0421** (0.0173)	-0.0562*** (0.0164)	-0.0515*** (0.0161)
Age						
25-44	0.243*** (0.0176)	0.239*** (0.0176)	0.194*** (0.0182)	0.189*** (0.0183)	0.166*** (0.0171)	0.143*** (0.0163)
45 and older	0.0940 (0.0822)	0.150** (0.0644)				
Education						
Grade 9-13, non-graduate	0.108 (0.143)	0.103 (0.141)	0.105 (0.147)	0.0959 (0.145)	0.0107 (0.0814)	0.111 (0.0810)
Grade 11-13, graduate	0.216 (0.141)	0.213 (0.139)	0.201 (0.145)	0.189 (0.143)	0.108 (0.0782)	0.173** (0.0782)
Some post-graduate	0.253* (0.141)	0.250* (0.139)	0.213 (0.145)	0.200 (0.143)	0.131* (0.0787)	0.185** (0.0789)
Below Bachelor's	0.377*** (0.140)	0.377*** (0.138)	0.339** (0.144)	0.325** (0.142)	0.254*** (0.0773)	0.258*** (0.0777)
University graduate	0.552*** (0.140)	0.552*** (0.137)	0.456*** (0.144)	0.442*** (0.142)	0.364*** (0.0774)	0.341*** (0.0781)
Household Income			4.01e-05*** (2.01e-06)	3.94e-05*** (2.05e-06)	3.42e-05*** (1.96e-06)	2.89e-05*** (1.90e-06)
Economic family type						
Dual earner couple				-0.129 (0.123)	-0.102 (0.105)	0.00781 (0.125)
Single earner couple				-0.201 (0.123)	-0.170 (0.106)	-0.0476 (0.125)
Non-earner couple				-0.183 (0.131)	-0.146 (0.113)	-0.0249 (0.131)
Single-parent				-0.0957 (0.124)	-0.0780 (0.107)	0.0455 (0.126)

Other family				-0.0956 (0.140)	-0.117 (0.124)	0.0223 (0.137)
	Occupation					
Group 1						-0.0312 (0.0207)
Group 2						0.0654*** (0.0212)
Group 3						0.00530 (0.0209)
Group 4						-0.0798*** (0.0306)
Group 5						-0.236*** (0.0230)
Year	Yes	Yes	Yes	Yes	Yes	Yes
Region	No	Yes	Yes	Yes	Yes	Yes
Work Type	No	No	No	No	Yes	Yes
Constant	4.928*** (0.143)	4.862*** (0.141)	4.852*** (0.147)	5.008*** (0.190)	5.142*** (0.132)	5.108*** (0.150)
Observations	5,593	5,593	5,209	5,199	5,144	5,115
R-squared	0.225	0.236	0.284	0.288	0.362	0.416

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note:

Occupation:

Group 1: business, finance, administration

Group 2: health and natural applied sciences

Group 3: social science, education, government, religion, art, sport, culture, recreation

Group 4: trade, transport, equipment, operators, primary processing, manufacturing, utilities

Group 5: sales and service

Year: survey year dummy variables, from 2000 to 2009

Region: Quebec, Ontario, Manitoba and Saskatchewan, Alberta, British Columbia, Atlantic region

Work type: Permanent full-time worker, Permanent part-time worker, Permanent work hour unknown worker, Not permanent seasonal worker, Not permanent other, and Self-employed

Table 7 OLS regression on log benefit weeks

	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant new parents	-0.0521* (0.0309)	-0.0506 (0.0316)	-0.0471 (0.0324)	-0.0540* (0.0325)	-0.0486 (0.0328)	-0.0474 (0.0331)
	Age					
25-44	0.111*** (0.0292)	0.112*** (0.0292)	0.0597** (0.0287)	0.0729** (0.0290)	0.0736** (0.0292)	0.0828*** (0.0292)
45 and older	0.558*** (0.0418)	0.574*** (0.0469)				
	Education					
Grade 9-13, non-graduate	0.0484 (0.173)	0.0454 (0.172)	0.132 (0.174)	0.135 (0.173)	0.158 (0.183)	0.133 (0.196)
Grade 11-13, graduate	0.0356 (0.169)	0.0320 (0.169)	0.0991 (0.171)	0.113 (0.170)	0.136 (0.180)	0.123 (0.193)
Some post-graduate	0.00953 (0.171)	0.00400 (0.171)	0.0747 (0.173)	0.0879 (0.171)	0.111 (0.182)	0.107 (0.195)
Below Bachelor's	-0.0165 (0.169)	-0.0172 (0.168)	0.0503 (0.171)	0.0697 (0.169)	0.0922 (0.179)	0.0961 (0.193)
University graduate	-0.0511 (0.169)	-0.0530 (0.169)	0.0203 (0.171)	0.0423 (0.170)	0.0618 (0.180)	0.0556 (0.193)
Household Income			-3.41e-06 (3.85e-06)	-5.10e-07 (3.97e-06)	3.70e-07 (4.02e-06)	2.37e-06 (4.08e-06)
	Economic family type					
Dual earner couple				0.359 (0.260)	0.383 (0.234)	0.322 (0.241)
Single earner couple				0.413 (0.260)	0.434* (0.234)	0.369 (0.241)
Non-earner couple				0.520* (0.266)	0.541** (0.241)	0.473* (0.248)
Single-parent				0.454* (0.261)	0.487** (0.236)	0.425* (0.243)
Other family				0.326 (0.311)	0.357 (0.290)	0.285 (0.293)
	Occupation					
Group 1						-0.0153 (0.0415)
Group 2						-0.0329 (0.0440)
Group 3						0.0507 (0.0433)
Group 4						0.0557 (0.0533)
Group 5						0.0536

						(0.0426)
Year	Yes	Yes	Yes	Yes	Yes	Yes
Region	No	Yes	Yes	Yes	Yes	Yes
Work Type	No	No	No	No	Yes	Yes
Constant	2.728*** (0.171)	2.737*** (0.173)	2.721*** (0.174)	2.305*** (0.312)	2.244*** (0.297)	2.287*** (0.313)
Observations	5,604	5,604	5,167	5,159	5,103	5,072
R-squared	0.036	0.037	0.036	0.039	0.039	0.042

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note:

Occupation:

Group 1: business, finance, administration

Group 2: health and natural applied sciences

Group 3: social science, education, government, religion, art, sport, culture, recreation

Group 4: trade, transport, equipment, operators, primary processing, manufacturing, utilities

Group 5: sales and service

Year: survey year dummy variables, from 2000 to 2009

Region: Quebec, Ontario, Manitoba and Saskatchewan, Alberta, British Columbia, Atlantic region

Work type: Permanent full-time worker, Permanent part-time worker, Permanent work hour unknown worker, Not permanent seasonal worker, Not permanent other, and Self-employed

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