

I CAN'T GET NO SATISFACTION: THE EFFECT OF THE QUEBEC PARENTAL  
INSURANCE PLAN ON PARENTS' OVERALL LIFE SATISFACTION

by

Stephanie Maguire

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## ABSTRACT

Despite the rising labour force participation rates of women and the gender wage gap closing, women are still more likely to take leave following the birth of a child. To promote fathers' participation in parental leave, countries are implementing dad-only leave where a portion of leave is set aside for fathers. The 2006 Quebec Parental Insurance System is one such policy that offers increased benefits, lower eligibility requirements, and a five-week father-only leave. Using the 2005 and 2010 cycles of the General Social Surveys on time use and time stress and well-being, I will analyze the effect of the Quebec reform on parents' overall life satisfaction. My results suggest the Quebec reform decreased the life satisfaction of Quebec fathers but had no effect on Quebec mothers. While my results provide some evidence to suggest changing gender roles and lower eligibility criteria are driving the results, further research is required.

## **LIST OF ABBREVIATIONS USED**

QPIP	Quebec Parental Insurance Plan
OLS	Ordinary Least Squares
GSS	General Social Survey
HS	High School
CERT	Certificate
CAD	Canadian

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## CHAPTER 1 INTRODUCTION

From the 1950s until the 1990s women's participation in the labour force steadily increased. While the labour force participation rate has grown at a slower pace since 1990, as of 2014 the labour force participation rates for men and women now only differ by about nine percentage points (82 percent for women vs. 91 percent for men) (Ferraro, 2010; Goldin, 2006; The surge of women in the workforce, 2018). Not only is the gap between men's and women's labour force participation rates closing, so too is the wage gap as women are now attaining more education (Moyser, 2017).

Despite the rise in female labour force participation rates and the closing of the wage and education gaps, women still take on a larger share of unpaid work than men. This pattern of unequal division of household labour persists under a variety of life circumstances; women take on a disproportionate share of unpaid work relative to men (Hook, 2005; Neilson and Stanfors, 2014; Brayfield, 1992). As such women may work the equivalent of two jobs which may affect self-reported overall life satisfaction. Women are also more likely to take leave following the birth of a child. All OECD countries except for the United States offer at least twelve weeks of paid maternity leave and over half of these countries allow fathers to take leave following the birth of their child, however, the leave participation rates of fathers are much lower than those of mothers. In Austria and France, for example, fathers only make up four percent of leave takers (OECD, 2016).

According to Becker (1965) and the theory of household behavior, households maximize their utility subject to various resource constraints. Under this theory of

household behavior spouses can specialize according to market wages where the higher wage earner is predicted to devote their time to paid work while the lower wage earner is predicted to devote their time to unpaid work including housework and childcare (Becker 1965). Since historically men have been the higher wage earners, Becker's (1965) theory predicts men specialize in paid labour, while women specialize in unpaid labour.

While Becker (1965) predicts household specialization as a result of different market wages, Akerlof and Kranton (2000) include identity into their model of behavior. Akerlof and Kranton (2000) note how a person's gender is associated with ideal own behaviors as well as ideal spouse behaviors (Becker, 1965; Akerlof and Kranton, 2000). These ideal behaviors can be shaped by social norms of how people should behave. Mothers, for instance, are traditionally seen as the primary caregivers and as such may feel obligated to take on a larger share of the caregiving responsibilities while fathers are traditionally seen as the primary breadwinner and may therefore feel obligated to spend their time in paid labour. Akerlof and Kranton (2000) also show that those behaviors that conform to a person's gender identity increase utility while those that violate a person's gender identity decrease utility. Therefore, in families with more traditional views on household division of labour, time spent by mothers in childcare increases mothers' utility while time spent by fathers in paid labour increases fathers' utility.

While the Becker model of household behavior predicts the higher wage earner to devote their time to paid work, according to Akerlof and Kranton (2000) peoples' decisions are influenced by balancing the standard and identity utility functions, where a person's identity can affect their behavior. Mothers, for instance, may elect to take parental leave following the birth of their child instead of the child's father even if they

are the higher wage earner. Traditional gender norms about what parents feel they should do following the birth of a child can therefore influence which parent takes leave, regardless of their income level. For parents with more traditional views on childcare and leave-taking, policies to encourage fathers' leave-taking can decrease the utility of both fathers and mothers (Becker, 1965; Akerlof and Kranton, 2000).

Extended time spent out of paid work by mothers can negatively impact their labour market outcomes and as such policies to encourage fathers' participation in parental leave are receiving more attention (Lequien, 2012; OECD, 2016). While many parental leave policies are gender neutral, mothers are still more likely to take leave following the birth of a child. To encourage fathers to take parental leave, many countries are now implementing dad-only leave policies where fathers are given their own individual right to non-transferable paid leave. The Quebec Parental Insurance Plan, introduced January 1 of 2006, is one such example of a dad-only leave policy designed to encourage fathers to participate in paid leave. The Quebec Parental Insurance Plan offers new parents increased benefits, lower eligibility criteria and a five-week dad-only leave (Quebec Parental Insurance Plan, 2019). Prior to the reform, Quebec parents claimed parental leave benefits through the employment insurance system, which, among many features, offers parents lower benefits and gives fathers no individual right to paid leave (Employment Canada, 2019). While policies to encourage fathers' participation in parental leave following the birth of their child may help lessen the gender gaps in labour force participation and wage rates, the effect these policies have on individuals are important to understand. Despite many countries implementing dad-only paternity policies to encourage fathers to participate in parental leave, the majority of the literature

focuses on the participation rates, labour-market consequences and marital stability effects following these parental leave changes. Only limited literature exists examining the effects of parental leave policies on parents' well-being.

To exploit the change from the employment insurance system to the Quebec Parental Insurance Plan, I use both difference in differences and triple difference ordinary least squares (OLS) identification strategies to evaluate the effect of the Quebec parental leave reform on parents' overall life satisfaction. As past literature suggests men and women are affected differently by changes to parental leave policies, I will estimate both identification strategies for the sample of mothers and fathers combined, as well as for mothers and fathers separately.

My analysis uses two cycles of the General Social Survey to evaluate the effect of the parental leave reform; the 2005 cycle 19 General Social Survey on time use and the 2010 cycle 24 General Social Survey on time stress and well-being. As the Quebec Parental Insurance Plan was implemented in 2006, the cycle 19 General Social Survey serves as the pre-reform period, while the cycle 24 General Social Survey serves as the post-reform period. As both cycles of the General Social Survey used here include a question on the age of the respondents' youngest child, my analysis can evaluate the effect of the reform on only those parents eligible for paid leave under the Quebec Parental Insurance Plan.

Patnaik (2019) notes that prior to the introduction of the Quebec Parental Insurance Plan, only sixty-percent of all Quebec families took the full leave they were entitled to and were therefore leaving benefits unclaimed. As many Quebec families were leaving benefits unclaimed, it is unlikely that Quebec mothers were taking the whole paid

leave thereby not allowing fathers to participate in parental leave. Given the Quebec Parental Insurance Plan includes a five-week dad-only leave designed to encourage fathers to take leave, the implementation of the dad-only leave may therefore be seen as a signal that fathers “should” be staying home with children following their birth, a shift from previously held traditional gender roles where mothers were expected to stay home following the birth of a child. Considering Becker’s (1965) theory of household behaviour and Akerlof and Kranton’s (2000) theories on how decision making is influenced by balancing both the standard and identity utility functions and given the literature shows men are negatively affected by changes to gender roles, I predict the implementation of the Quebec Parental Insurance Plan will decrease father’s overall life satisfaction. As the Quebec parental leave reform offers lower eligibility requirements, mothers who may not have qualified for paid leave under employment insurance may now qualify for paid leave through the Quebec Parental Insurance Plan. Additionally, the Quebec Parental Insurance Plan includes benefits to encourage fathers to participate in paid leave, but does not include similar benefits to increase mothers’ participation rates. I therefore predict that the life satisfaction of mothers with lower levels of education who are less likely to work full-time and therefore qualify for paid leave under employment insurance will increase, while the life satisfaction of mothers with higher levels of education will be unaffected by the reform (Kanji, 2011). However, the effect of the parental reform on parents’ subjective life satisfaction remains an empirical question requiring further scrutiny.

While Patnaik (2019) used a similar methodology to study the effect of the Quebec parental leave reform on fathers’ participation in paid leave, duration of leave as

well as the effect of the reform on the long-run division of household labour, Patnaik (2019) did not evaluate the effect of the Quebec Parental Insurance Plan on parents' overall life satisfaction. My analysis therefore extends on the work of Patnaik (2019) and contributes to the growing literature on paternity leave policies and their effects on parents' well-being. My analysis is also the first study to evaluate the effect of the Quebec Parental Insurance Plan on Quebec mother's and father's overall life satisfaction.

My results indicate that while the Quebec Parental Insurance Plan decreased the overall life satisfaction of Quebec parents, the results are driven by Quebec fathers' response to the reform. I find Quebec fathers' life satisfaction decreased while Quebec mothers' life satisfaction is not affected by the reform. When mothers and fathers are analyzed separately, my results suggest different underlying mechanisms behind their respective responses to the reform; mothers respond to their increased ability to participate in leave due to the lower eligibility requirements, while fathers' respond to changes to traditional gender roles, although small sample sizes limit the study of the underlying mechanisms.

This paper is presented as follows: Section 2 presents background information on the Quebec parental leave reform as well as a brief history of parental leave policies, Section 3 presents the previous literature, Section 4 discusses the data, Section 5 discusses the identification strategies, Section 6 presents the results of the analysis, Section 7 presents the threats to identification, Section 8 provides the discussion of the results and Section 9 presents the conclusion.

## CHAPTER 2 BACKGROUND

### 2.1 THE QUEBEC PARENTAL INSURANCE PLAN

Paid parental leave allows new parents to take leave following the birth of a child. Eligible parents are entitled to paid leave and are compensated at a percentage of their pre-leave income up to a cap on total earnings. Residents of all Canadian provinces are entitled to paid parental leave through the employment insurance system. To be eligible for paid parental leave under the employment insurance system claimants need: to recently either given or are about to give birth, or are caring for a newborn or a newly adopted child, have their weekly earnings decrease by at least forty percent for at least one week and work at least 600 insurable hours in the 52 weeks prior to a claim. The employment insurance system offers parents 52 weeks of paid leave with an income replacement rate of 55 percent (Employment Canada, 2019).

On January 1, 2006 Quebec implemented the Quebec Parental Insurance Plan, thereby replacing the employment insurance plan which continues to be used by the rest of the Canadian provinces. To qualify for the Quebec Parental Insurance Plan claimants need to: give birth or adopt a child on or after January 1 of 2006, earn at least two-thousand dollars of insurable earnings during the qualifying period, be a Quebec resident, and pay or owe Quebec Parental Insurance Plan premiums for the qualifying period (Eligibility Conditions, 2019). The Quebec Parental Insurance Plan offers new parents lower eligibility requirements as well as increased benefits. The benefits of the Quebec Parental Insurance Plan include: the choice between basic and special plans (basic plan includes a longer duration leave with lower replacement rate), an increase in the income replacement rate up from 55 percent on employment insurance to 70 percent for the basic

plan (75 percent for special plan), a higher cap on earnings from 35,000 CAD to 57,000 CAD, as well as a non-transferable five week leave set aside specifically for fathers (Quebec Parental Insurance Plan, 2019).

The goal of the Quebec Parental Insurance Plan implementation is to increase fathers' participation in parental leave as under the employment insurance system fathers only have access to shared parental leave and therefore need negotiate for leave with the mother. The Quebec Parental Insurance Plan also reduces the opportunity costs of fathers taking leave, as fathers are now compensated more during leave and the reform might also help lessen any stigmas against fathers taking leave as the dad-only leave sets aside leave specifically for fathers (Employment Canada, 2019; Quebec Parental Insurance Plan, 2019).

## **2.2 PATERNITY LEAVE POLICIES**

Paid family leave allows parents to take leave following the birth of a child without suffering financial hardship; new parents are entitled to a period of leave following the birth of a child and are compensated at a portion of their pre-leave income up to a set cap on total earnings. In 1974, Sweden was the first country in the world to offer paid parental leave that fathers could also use. While Sweden's paid parental leave was designed to be gender neutral, under the 1974 parental leave system fathers had no individual right to parental leave (Duvander and Andersson, 2008). Similar policies have also been implemented in other countries where fathers also have no individual right to leave and therefore have to negotiate with mothers for leave. As a result of gender-neutral parental leave policies, mothers' participation rates in parental leave are higher than fathers' participation rates which is often credited as a contributing factor to the wage gap



between men and women; women on maternity leave spend long periods of time outside the labour market while men are able to remain in paid labour and strengthen their labour market position (OECD, 2016).

To encourage fathers' participation in paid parental leave, countries are implementing dad-only policies where fathers have the right to non-transferable leave. Dad-only paid leave policies set aside paid leave specifically for fathers that they are able to take following the birth of a child. These policies require the father to use their entire allotted paid leave otherwise, if fathers choose not to use their designated leave, the leave is forfeit to the whole family. Under the 1995 Sweden parental leave reform, for instance, new fathers have access to dad-only leave where fathers are designated one month of non-transferable leave (Avdic and Karime, 2018). Iceland's 2001 dad-only leave offers a similar one-month dad-only leave (Olafsson and Steingrimsdottir, 2019). While previously gender-neutral policies gave fathers no individual right to paid leave, dad-only leave gives fathers the right to paid parental leave thereby eliminating the need for fathers to negotiate with mothers for leave.

### CHAPTER 3 LITERATURE REVIEW

Parental leave offers eligible families access to paid leave following the birth of a child. For a specified period, the parent who chooses to stay home with the child is compensated at a portion of their pre-leave income up to a certain limit. Paid parental leave allows new parents to stay home following the birth of a child without suffering financial hardship. Despite the gender neutrality of many parental leave policies, previous research indicates that mothers are more likely to take leave following the birth of a child than are fathers. The California Paid Family Leave, introduced July 2004, offers eligible families six weeks of paid leave with a wage replacement rate of fifty-five percent. This program, the first of its kind in the United States, is gender neutral as mothers and fathers are both able to take leave. Bartel et al. (2017) evaluate the impact of California's Paid Family Leave on parent's leave taking and find that, despite the gender neutrality of California's paid family leave, the increase in mothers' leave-taking post-reform is larger than the increase in fathers' leave-taking; fathers' leave-taking increased 0.9 percentage points while mothers' leave-taking increased 2.3 percentage points. While California offers parents six weeks of paid leave, Bartel et al. (2017) estimate the introduction of paid family leave increased fathers' duration of leave by only about 2.4 days up from a baseline of 5.2 days, while Bartel et al. (2017) estimate mothers leave duration increased by about 6 days up from a baseline of 46 days. Despite the introduction of a policy that offers mothers and fathers in eligible families paid leave, mothers are still more likely to both take leave and take leave for a longer duration than are fathers.

The differences in leave-taking of mothers and fathers may be related to the greater negative financial consequences of fathers taking parental leave relative to

mothers taking leave. While the gender wage gap has been decreasing, men on average still tend to earn more than women. While parents on paid parental leave are compensated at a percent of their pre-leave income, paid leave still reduces a family's income as family members are only earning a portion of their income while on leave. In the case of California's paid family leave, parents are offered six weeks of leave at a replacement rate of 55 percent (Bartel et al. 2017). In families where fathers are the higher-earning parent, the opportunity costs of taking leave are higher for the father than they are for the mother; when high-income fathers, relative to mothers' income, take leave the family faces a greater decrease in household income than when mothers take leave. Consistent with the Becker (1965) model of household behavior, fathers spend their time in paid work while mothers participate in paid leave.

Not only do opportunity costs factor into fathers' decision to take leave, there is stigma associated with fathers who take paternity leave. Haas et al. (2002) examine how fathers' workplace situations affect their leave-taking in Sweden. Their results indicate that fathers working in workplaces where they are encouraged to take on childcare responsibilities are more likely to take leave than fathers working in workplaces that are passively opposed to fathers taking leave. Additionally, top management's support of leave has a statistically significant effect on the duration of fathers' leave. Levine and Pittinsky (1997) demonstrate fathers only take a few days of leave following the birth of a child so as to not risk negative labour market consequences from upper management.

While fathers choose not to take parental leave out of concern about management not being supportive, fathers taking leave spend less time in paid labour than do fathers not taking leave. Increased time spent in childcare and decreased time spent in paid

labour may negatively impact fathers' earnings. Rege et al. (2013) examine the impact of the 1993 parental leave reform in Norway which transferred four weeks of leave, out of a total 42 weeks, to fathers. For fathers taking leave, the reform decreased earnings by 1.8 to 4.5 percent. Rege et al. (2013) postulate that the results can be attributed to fathers spending more time in childcare and less in paid work, however, they cannot rule out any signaling effects that fathers taking leave may demonstrate; fathers taking long parental leave may signal to employers that they are less career oriented and may therefore affect fathers' earnings in ways that are unrelated to time spent in childcare.

Not only does top managements' support of leave affect fathers' leave-taking, fathers' leave-taking is also affected by: whether fathers work in the public or private sectors, the size of the workplace as well as the proportion of female workers in a workplace. Public sector jobs are less profit driven and as such decreases in productivity associated with fathers taking leave are less of a concern than is the case in private sector workplaces. Bygren et al. (2006) find that fathers working in the public sector take an average of 7 to 14 more days of paid leave than do fathers working in the private sector. However, it is possible that fathers who value longer durations of parental leave choose to work in the public sector, and as such the results may demonstrate correlation between leave duration and type of workplace rather than a causal relationship. Larger workplaces are better able to accommodate fathers who wish to take leave as larger workplaces have employees that can fill in for a father on leave while female-dominated workplaces are more accustomed to mothers taking parental leave and are therefore better able to cope when a worker is out on leave. As a result, fathers working in large workplaces or workplaces that are female-dominated are more likely to take leave.

As previous literature demonstrates fathers are negatively affected by time spent out of paid work, mothers' labour market outcomes are also a concern. Extended periods of leave taken by mothers for maternity leave can negatively affect mothers' labour market outcomes. Albrecht et al. (1999) theorize that women's labour market outcomes are negatively affected by maternity leave because while women are out on leave, they are not gaining work experience. Income tends to rise with experience and as a result maternity leave may contribute to the gender wage gap.

Sweden's parental leave program allows parents to take leave of various lengths, where parents are able to extend their paid leave by either decreasing their replacement rate or taking a period of unpaid leave following their paid leave. Evertsson et al. (2010) examine the effect of mother's leave duration on their likelihood of transitioning to a higher prestige job between 1974 and 2000. The results indicate that women who opt to take at most 15 months of leave are twice as likely to transition to a higher prestige job than women who took over 15 months of leave.

Given the low participation rates of fathers taking parental leave and the benefits of fathers' participation in leave, many countries are now opting to make changes to parental leave policies in an effort to encourage fathers to participate in paid leave. The majority of these countries are introducing dad-only leave where a portion of paid leave is set aside specifically for fathers. In families where fathers choose not to use their designated leave, the leave is be forfeit to the entire family. Previous research supports the theory that introducing dad-only leave not only increases the proportion of fathers taking leave, but also shifts the long-run household division of labour. Patnaik (2019) examines the effect of the Quebec Parental Insurance Plan, which includes five weeks of

dad-only leave, on fathers' participation rates and duration of leave. The results indicate that the parental leave reform increased the probability of fathers taking leave as well as increased both fathers' participation rates in paid leave and their duration of leave. The Quebec parental leave reform increased the probability of fathers taking leave by 53.1 percentage points and increased fathers' uptake rates of parental leave by 200 percent, from a baseline participation rate of twenty-two percent. The reform also increased fathers' duration of leave by 3.2 weeks up from a baseline level of two weeks prior to the reform.

Similar results are found from the 1995 reform to Sweden's parental leave policy. While the 1974 Sweden parental leave policy was gender neutral, prior to the 1995 reform, only 11.4 percent of fathers took leave. The 1995 reform requires fathers to take at least one month of paid leave otherwise the paid leave is forfeit to the entire family. Ekberg et al. (2005) find that the reform increased the proportion of fathers taking one month of leave increased from 9 percent prior to the reform to 47 percent following the reform while fathers leave duration increased by fifty percent, or fifteen days. Duvander et al. (2012) show similar results when looking at the 1995 reform; the reform in Sweden is associated with a ten day increase in fathers' leave duration.

While mothers are more likely to take leave following the birth of a child and therefore take on a larger share of childcare for the first few months of a child's life, this division of childcare responsibilities can persist throughout the child's life; parents who are involved in childcare when the child is very young are likely to spend more time in childcare later on in the child's life. The literature demonstrates that fathers who take leave following the birth of a child spend more time in unpaid labour, even after the leave

period ends. As a result of the Quebec Parental Insurance Plan, fathers are now spending more time in traditionally female tasks while mothers are spending more time in paid labour; Quebec fathers are now spending 37 more minutes per day in non-market work including time spent housekeeping, while mothers are spending one more hour per day at work (Patnaik, 2019).

While policies to encourage fathers to take paid parental leave may decrease the gender wage gap, as women can return to work sooner and invest more time into market work, parental leave policies can affect parents' well-being and marital stability. Avdic and Karime (2018) for instance, examine the 1995 reform to Sweden's parental leave policy. The 1995 reform did not alter the total length of leave available to parents but now each parent is required to take at least one month of leave, otherwise that paid leave is forfeit. Their results indicate the reform increased the probability of separation by one percentage point. However, Avdic and Karime (2018) note that the separations are not separations caused by the reform, the relationships that ended in separation were poor matches to begin with. The spike in separations occurring after the reform are simply a result of re-timed separations; the reform pushed forward the timing of separations that would have occurred without the reform (Avdic and Karime, 2018).

Olafsson and Steingrimsdottir (2019) also examine the effect of changes to parental leave policies on marital stability. They evaluate the effect of the 2001 Iceland parental leave reform on parents' marital stability which gives fathers one month of non-transferable paid leave. The authors find that parents who had children right after the reform are less likely to get divorced than parents who had children just before the reform. They also find that if parents who had children just before the reform had access

to the Iceland reform policies, their probability of separation would have been six to twelve percentage points lower (Olafsson and Steingrimsdottir, 2019).

The majority of literature surrounding parental leave policies focuses on the uptake rates, and labour market consequences of these policies. Little research exists concerning the effect changes to parental leave policies have on parents' overall life satisfaction. Brodeur and Connolly (2013), however, examine the effect of the Quebec subsidized daycare program on parental life satisfaction. The subsidized daycare program allows parents to put their childcare in daycare for just five dollars a day. As a result of the Quebec policy change, kids' enrollment in daycare tripled and mother's labour force participation increased by 13 percent while their annual hours worked increased by 22 percent. This increase in labour force participation rates is predicted to lead to higher incomes for women. Brodeur and Connolly (2013) find that the Quebec daycare policy lead to a small decrease in parents' life satisfaction of 7 to 9 percent of a standard deviation. Brodeur and Connolly (2013) note that this overall decrease in life satisfaction is driven by men, who may have been negatively affected by changing gender roles within the household as women are now helping out with the breadwinner role. These results are consistent with the predictions of Akerlof and Kranton (2000), fathers' life satisfaction decreased as a result of changes to women's gender roles. If women are now entering the labour market while still taking on the majority of unpaid housework it is predicted that they suffer the greatest decrease in life satisfaction, however the results do not show this, as men are the most affected. Brodeur and Connolly also note mothers' response differed based on their highest level of education. For mothers with lower levels of education, their life satisfaction is positively affected by the program as lower



educated mothers have lower incomes and as a result benefit most from access to inexpensive daycare. While for women with higher than a high school diploma, the reverse pattern is seen; the program negatively affected their life satisfaction (Brodeur and Connolly, 2013).

## CHAPTER 4 DATA

For the purposes of my analysis, two cycles of the General Social Survey are used: the cycle 19 General Social Survey on time use from 2005 and the cycle 24 General Social Survey on time-stress and wellbeing from 2010. Given the Quebec Parental Insurance Plan was implemented in 2006, the cycle 19 General Social Survey is the pre-policy change period while the cycle 24 General Social Survey is the post-policy change period.

The two cycles of the General Social Survey used in my analysis are cross-sectional surveys that evaluate how Canadians spend their time and examine what factors affect their well-being. The General Social Survey includes detailed information on individual and household characteristics. Both cycles of the General Social Survey also include a question which asks respondents to rate their overall life satisfaction on a scale from very satisfied to very dissatisfied on a ten-point scale where ten represents the highest possible life satisfaction and zero the lowest (Surveys and Statistical Programs, 2019).

Some potential issues regarding the analysis concern the comparability of the 2005 and 2010 cycles of the General Social Survey, as well as the questions asked of respondents. While the two cycles of the General Social Survey used here include the labour force status information of the respondent, a similar question is not included for the respondents' partner. A respondents' partner is therefore considered employed if the respondent answered yes to whether their partner worked at a job or was self-employed at any time in the previous week. There is therefore the possibility that this variable may not accurately state whether a respondents' spouse is actually employed; a full-time worker

may have been out on vacation in the previous week for instance. However, this is likely a small percentage of the respondents.

Another issue with the data concerns the control for the presence of a condition that limits a respondents' daily activities. While the 2005 cycle of the General Social Survey includes a question that asks respondents whether they have any physical, mental or health condition that limits their activity at home, at work or at school, the 2010 cycle of the General Social Survey does not. The 2010 General Social Survey includes questions on whether a respondent is limited in their daily activities at home, at school, at work, or in any other locations from various conditions. The 2010 General Social Survey does not however include a summary variable, similar to the question available in the 2005 General Social Survey, of all conditions that limit a respondent in their daily activities. In order to control for any activity limitation a respondent possesses, a similar variable is created using available questions asked in the 2010 General Social Survey. A respondent is considered limited in their activities if they answer either sometimes, often or always are limited in their daily activities at home, work or school from either: a physical condition, a psychological, emotional or mental health or condition, or from any other health condition.

There is also the concern regarding the accuracy of the outcome variable, as overall life satisfaction is a subjective measure and may therefore not be an accurate representation of parents' actual overall life satisfaction. Dolan et al. (2008) analyze the literature regarding the relationship between subjective well-being and other objective measures of health and find objective measures are strongly associated with subjective well-being. Diener et al. (2013) find similar results when evaluating measures of life

satisfaction; measures of life satisfaction are found to be correlated with objective conditions, genetic and physiological conditions, as well as correlated with changes in significant life events. Additionally, Diener et al. (2013) find that alternate scales in use by different organizations to measure overall life satisfaction yield results that are highly correlated. The World Values Survey/European Values Survey and the Gallop World Poll, for instance, use different scales to evaluate life satisfaction in the same 97 countries but their results are found to be highly correlated with a correlation of 0.94. As such, the accuracy of overall life satisfaction is unlikely to be a significant concern in this analysis.

The sample I use to conduct my difference in differences analysis consists of Canadian parents with at least one child living in the household under the age of five, while my triple difference analysis uses a sample of Canadian parents with a child under the age of nine living in their household. Parents who report that their youngest child is four years old are omitted from the analysis since the General Social Survey does not include date of birth of the youngest child. There is therefore no way to confirm the child was born after the cut-off date of January 1, 2006. Since Quebec was the only province to implement the Quebec Parental Insurance Plan and the rest of Canada continues to use the employment insurance system, for my analysis, Quebec is the treatment group while the rest of the Canadian provinces will serve as the control group.

Table 1.1 and Table 1.2 present the summary statistics for the 2005 General Social Survey while Table 2.1 and Table 2.2 presents summary statistics for the 2010 General Social Survey. While the proportions between the control and treatment groups for both years appear similar, there are some notable difference. The proportion of parents who are married in Quebec is between 28 to 35 percentage points less than the

rest of Canada. Additionally, more Quebec parents are in common-law relationships as compared to the rest of Canada. While the difference between the proportion of married and common-law respondents in Quebec and the rest of the Canadian provinces is statistically significant, as can be seen in Table 1.1 and 1.2, it should be noted that the difference between respondents who are either married or common-law in Quebec and the rest of the Canadian provinces is only statistically different for the 2010 sample of parents to children under four. There are also differences between the labour force status of respondents in Quebec and those of respondents in the rest of the Canadian provinces, but the difference is only significant in the 2005 sample of parents with a child under the age of four. In 2005, the proportion of Quebec parents working full-time is 10 to 18 percentage points lower than parents in the rest of the Canadian provinces. This pattern reverses in the 2010 sample, where the proportion of Quebec parents working full-time is around 6 percentage point higher than parents in the rest of Canada. However, the difference is only marginally significant for the 2005 sample of parents with a child under the age of four. In terms of the highest level of education obtained Quebec parents are slightly more likely to have a college diploma than parents in the rest of Canada, however this difference is only significant in the 2005 sample of children under four.

There are also differences between Quebec parents with children under four and those with children between the ages of five and eight. In both 2005 and 2010, parents whose youngest child is between the ages of 5-8 are more likely to have less than a bachelor's or college diploma than parents whose youngest child is under the age of four. Quebec parents whose child is under the age of four are also more likely to have a college diploma or bachelor's degree than Quebec parents to slightly older children.

## CHAPTER 5 IDENTIFICATION STRATEGY

### 5.1 DIFFERENCE IN DIFFERENCES

To exploit the change from Employment Insurance to the Quebec Parental Insurance Plan in Quebec, I use an ordinary least squares (OLS) difference in differences identification strategy. The difference in differences strategy first examines just those parents with children under the age of four and the effect the Quebec policy change has on Quebec parents' self-reported overall life satisfaction. The difference in differences equation I estimate can be seen below.

$$Y_{it} = \alpha + \beta(\text{Quebec}_{it} * \text{Post}_{it}) + \lambda \text{Quebec}_{it} + \delta \text{Post}_{it} + \phi \mathbf{X}_{it} + \varepsilon_{it} \quad (1)$$

Where  $Y_{it}$  is the self-reported overall life satisfaction of parent  $i$  at time  $t$ .  $\text{Quebec}_{it}$  is an indicator variable equal to one if individual  $i$  lives in Quebec, 0 otherwise. The coefficient  $\lambda$  represents the Quebec fixed effects or the effect living in Quebec has on overall life satisfaction that is shared by all people living in Quebec.  $\text{Post}_{it}$  is an indicator variable equal to one if the year  $t$  is 2010, 0 otherwise. The coefficient  $\delta$  represents the year 2010 fixed effects or the effect the year 2010 has on self-reported overall life satisfaction that is shared by all respondents in the 2010 General Social Survey.

$\text{Quebec}_{it} * \text{Post}_{it}$  is the interaction term that captures the effect of living in Quebec after the policy change (after the year 2006). The coefficient of interest in equation 1,  $\beta$ , represents the difference in differences estimator or the effect of the Quebec Parental Insurance Plan on exposed parents' self-reported overall life satisfaction.  $\mathbf{X}$  is a vector of background characteristics for individual  $i$ . The controls I include in the identification strategy are: marital status, age bracket of respondent, number of children, highest level of education of the respondent and the respondents' partner, household income, whether the

respondent has an activity limitation, employment status of the respondent and the respondents' partner, and whether the respondent is Canadian born or not. Since the 2005 and 2010 GSS's do not include information on the age of the respondents' spouse, this variable cannot be included in the controls.

The controls used in this analysis are included as the literature shows that the variables used here are correlated with overall life satisfaction. Marital status is included as a control as a respondents' relationship status may affect their life satisfaction. Going through a divorce or separation when a couple also has children is potentially detrimental to life satisfaction as parents might disagree on who gets custody of the child, for instance. Ngoo et al. (2014) examine the impact of marital status on life satisfaction across four sub-regions of Asia and find that in East Asia, for instance, married individuals have a higher life satisfaction than single individuals, while individuals from South Asia who are either divorced, widowed, or separated have lower life satisfaction than do single individuals.

As the General Social Survey only includes the age bracket for the respondent, the age bracket of the respondent is included as a control in this analysis. The age bracket of the respondent is included to allow for the possibility that different stages of the life cycle have different effects on life satisfaction. Individuals aged 25-34, for instance, may now be starting their careers which might have affect their life satisfaction differently than an older person who is more established in their career. The literature demonstrates that different points in the life cycle have different effects on life satisfaction. Ngoo et al. (2014), for instance, find that individuals from East Asia have higher levels of life satisfaction when they are between the ages of sixty to sixty-nine as compared to

individuals between the ages of twenty to twenty-nine. Callens (2015) finds a similar effect of age on life satisfaction when evaluating long-term trends in life satisfaction in Flanders in Europe. Calens (2015) finds that there is a quadratic relationship between age and life satisfaction (Callens, 2015).

Controls for the number of children a respondent has are included as the presence of more children may affect life satisfaction. Becchetti et al. (2013) find that, when controlling for per capita income, life satisfaction increases with the number of children.

The highest level of education of the respondent and the respondents' spouse is included in this analysis as the literature demonstrates that socio-economic status affects life satisfaction. Clemente et al. (1976) evaluate the effect of various background characteristics, including socio-economic status, on the life satisfaction of US residents and find that individuals with more education have greater life satisfaction levels than do individuals with lower levels of education, however, the regression results suggest the relationship between socio-economic status and life satisfaction is spurious. Bonikowska et al. (2014), however, find that education does have a statistically significant effect on life satisfaction when evaluating the consistency of life satisfaction in Canada in the General Social Survey and the characteristics that influence life satisfaction.

As Becker (1985) notes in the theory of household behavior, households maximize their utility subject to resource constraints including income. Household income is included as a control as income allows agents to purchase goods and services. A household with a low income faces greater difficulty purchasing goods and services than does a household with a higher income, which can affect an individuals' life satisfaction. Boes et al. (2010) find that the probability of men reporting they are satisfied



with life overall increases with income, while the probability of men reporting low levels of life satisfaction decreases as income increases.

The presence of an activity limitation is included in this analysis as an activity limitation prevents people from activities at home, school or work and may therefore affect life satisfaction. Strine et al. (2008) evaluate the relationship between overall life satisfaction and health-related quality of life and chronic illnesses for US adults. Strine et al. (2008) find that for those adults who are either dissatisfied or very dissatisfied with their lives are 7.7 times more likely to report an activity limitation in the past 30 days than adults who are very satisfied with their lives overall.

Labour force status is included in this analysis to allow for the possibility that a respondents' employment status affects their life satisfaction. Time spent in paid labour reduces time available for other activities and may therefore have a negative or positive effect on life satisfaction. Berger (2013) find that German mothers out of the labour force for personal reasons and working part-time for the short term are less satisfied with life overall than are mothers working full-time.

A control for being born outside of Canada is included in this analysis to allow for the possibility that a respondents' life satisfaction is affected by whether they are an immigrant or not. Obueina (2013) evaluates the life satisfaction of immigrants in Germany and finds that while the results suggest immigrants overall are not more or less satisfied than German-born individuals, Turkish immigrants to Germany are less satisfied than German-born individuals while Eastern European immigrants are more satisfied with life overall.

The existing literature suggests that time spent in paid and unpaid labour affects individuals' stress levels as well as life satisfaction. MacDonald et al. (2006) find that 10 more hours spent in housework, for instance, increases the probability of time stress by 3.3 and 2 percentage points for mothers and fathers respectively. While there is not a lot of literature examining the effects of time spent in paid and unpaid labour on individuals' life satisfaction, Rey et al. (2015) find perceived stress is negatively related to life satisfaction. Hui et al. (2017) and Hamarat et al. (2001) find similar results; as stress increases, overall life satisfaction is found to decrease. The 2005 and 2010 cycles of the GSS also include questions on time spent in paid and unpaid labour. Since Patnaik (2019) finds the Quebec Parental Insurance Plan altered the long-run household division of time spent in paid and unpaid labour, I also estimate a second specification that controls for time spent in unpaid labour to ensure changes in time use by parents are not affecting the results. Specification two for the difference in differences strategy can be seen below.

$$Y_{it} = \alpha + \beta(\text{Quebec}_{it} * \text{Post}_{it}) + \lambda \text{Quebec}_{it} + \delta \text{Post}_{it} + \phi \mathbf{X}_{it} + \psi \text{TimeUse}_{it} + \varepsilon_{it} \quad (2)$$

Where  $Y_{it}$  is the self-reported overall life satisfaction of parent  $i$  at time  $t$ ,  $\text{Quebec}_{it} * \text{Post}_{it}$  captures the effect of living in Quebec after the policy change, and  $\beta$  is the coefficient of interest. Unlike equation 1, equation 2 includes the vector **Time Use** which represents minutes spent per week in unpaid labour. Minutes spent per week in unpaid labour included in my analysis include time spent: at home, with household members, cooking and washing up, housekeeping, performing maintenance and repair, providing childcare, and minutes spent doing "other" household work. Time spent in the above categories of unpaid labour are controlled for separately in my analysis.

## 5.2 TRIPLE DIFFERENCE

Since the version of the General Social Survey used in this analysis is only available every five years, there is the concern that from 2005 to 2010 something else occurred that affects parents' self-reported overall life satisfaction other than the Quebec Parental Insurance Plan. The parallel trend assumption in this case states that absent the policy change in Quebec, the trends in self-reported overall life satisfaction for Quebec and the rest of Canada follow the same trend-line or the difference between the treatment and control groups is fixed. Since the parallel trend assumption cannot be verified here, I use an OLS triple difference identification strategy instead. Similar to the methodology of Brodeur and Connolly (2013), and Patnaik (2019), I use a placebo group that consists of parents to older children as the triple difference. The placebo group consists of parents to children aged 5 to 8 in Quebec and the rest of the Canadian provinces. Since only parents with children born after January 1, 2006 qualify for the QPIP, this placebo group is not expected to be affected by the QPIP implementation. The triple difference equation I estimate can be seen below.

$$\begin{aligned} Y_{it} = & \alpha + \delta \text{Post}_{it} + \lambda \text{Quebec}_{it} + \chi \text{YoungChild}_{it} + \beta_1(\text{Quebec}_{it} * \text{Post}_{it}) + \\ & \beta_2(\text{YoungChild}_{it} * \text{Post}_{it}) + \beta_3(\text{Quebec}_{it} * \text{YoungChild}_{it}) + \beta_4(\text{Quebec}_{it} * \text{YoungChild}_{it} * \text{Post}_{it}) \\ & + \phi \mathbf{X}_{it} + \varepsilon_{it} \end{aligned} \quad (3)$$

Where, similar to equation 1,  $Y_{it}$  is the self-reported overall life satisfaction of parent  $i$  at time  $t$ .  $\text{YoungChild}_{it}$  is an indicator variable equal to one if the respondent has a child under the age of four living in their household, 0 otherwise.

$\text{Quebec}_{it} * \text{YoungChild}_{it} * \text{Post}_{it}$  is the interaction term that captures the effect of living in Quebec after the policy change for those respondents with a child under four. The

coefficient of interest in equation 2,  $\beta_4$ , represents the triple difference estimator or the effect of the Quebec Parental Insurance Plan on eligible parents' self-reported overall life satisfaction.

Similar to equation 2, I also include controls for time use in the triple difference identification strategy. Specification two of the triple difference strategy can be seen below.

$$Y_{it} = \alpha + \delta \text{Post}_{it} + \lambda \text{Quebec}_{it} + \chi \text{YoungChild}_{it} + \beta_1(\text{Quebec}_{it} * \text{Post}_{it}) + \beta_2(\text{YoungChild}_{it} * \text{Post}_{it}) + \beta_3(\text{Quebec}_{it} * \text{YoungChild}_{it}) + \beta_4(\text{Quebec}_{it} * \text{YoungChild}_{it} * \text{Post}_{it}) + \phi \mathbf{X}_{it} + \psi \text{TimeUse}_{it} + \varepsilon_{it} \quad (4)$$

Where, similar to equation 3,  $Y_{it}$  is the self-reported overall life satisfaction of parent  $i$  at time  $t$ ,  $\text{Quebec}_{it} * \text{YoungChild}_{it} * \text{Post}_{it}$  is the interaction term that captures the effect of living in Quebec after the policy change for those respondents with a child under four, and  $\beta_4$  is the coefficient of interest. Unlike equation 3, equation 4 includes the vector **Time Use** which includes minutes spent per week in unpaid labour.

As past literature indicates that men and women are affected differently by changes to parental policies, I estimate equations 1 through 4 for the sample of all parents (mothers and fathers combined), controlling for gender, as well as for mothers and fathers separately.

As the above samples only evaluates the impact of the QPIP implementation for those parents exposed to the reform rather than those who actually took advantage of the reform, the identification strategies used here represent “intention to treat” estimates. As opposed to “treatment of the treated” estimates, “intention to treat” estimates overcome

any potential selection bias issues as those parents who chose to take leave under the Quebec Parental Insurance Plan may be statistically different from those parents who decide not to take leave (Gupta, 2011).

## CHAPTER 6 RESULTS

### 6.1 MAIN RESULTS

Tables 3 through 8 present my results for the difference in differences and triple difference identification strategies for all parents as well as results for mothers and fathers separately. All tables provide results for both specification 1 and specification 2, where specification 2 includes additional time use controls.

The results of my difference in differences analysis for the three samples are presented in tables 3 through 5, where table 3 presents the difference in differences results for all parents, table 4 presents the difference and differences results for just mothers and table 5 presents the difference in differences results for just fathers. My results indicate that the Quebec and Post variables, when not interacted with other variables, have no statistically significant effect on life satisfaction for Quebec parents, Quebec mothers, or Quebec fathers. Looking at the controls included in the difference in differences identification strategy, the presence of an activity limitation or being born outside of Canada has a strongly significant negative affect on overall life satisfaction for all three samples. Being separated or divorced also has a negative effect in all samples however, the separated variable only has a marginally significant negative effect on life satisfaction for all samples except mothers, where the separated variable is significant at the five percent level. While being in a common-law relationship has a negative effect on life satisfaction in the sample of all parents and on fathers, it has no statistically significant effect on mothers' life satisfaction. I find time spent with household members has a positive effect on the life satisfaction for all samples, however, I find time spent in unpaid labour affects mothers and fathers differently. Mothers' overall life satisfaction is

negatively affected by time spent cooking and washing up, in housekeeping and in childcare but has no statistically significant effect on fathers' overall life satisfaction.

The coefficient of interest in the difference in differences identification strategy is the coefficient for the Quebec\*Post variable. My results presented in Table 3 for the entire sample of parents indicate that the Quebec Parental Insurance Plan has no statistically significant effect on Quebec parents' overall life satisfaction in either specification.

Table 4 presents my results of the difference in differences identification strategy for the effect of the Quebec Parental Insurance Plan on mother's life satisfaction for both specifications. The coefficient of interest for the Quebec\*Post interaction term indicates that the Quebec Parental Insurance Plan does not affect Quebec mothers' overall life satisfaction in any statistically significant way. My results are similar with and without controls for time use. Table 5 presents my results of the difference in differences results for the effect of the Quebec Parental Insurance Plan on fathers' overall life satisfaction. Similar to the results obtained for mothers, my results for the Quebec\*Post coefficient in Table 5 indicate that the Quebec Parental Insurance Plan has no statistically significant effect on Quebec fathers' overall life satisfaction.

Tables 6 through 8 present my results of the triple difference identification strategy where table 6 presents the triple difference results for the sample of all parents, table 7 presents the triple difference results for just mothers and table 8 presents the triple difference results for just fathers. My results show evidence that the presence of a child under the age of four has a positive effect on life satisfaction for the sample of parents and fathers but has no statistically significant effect on mothers' overall life satisfaction.

Relative to their pre-reform mean level of life satisfaction, my results suggest the presence of a child under four increase life satisfaction of all parents and just fathers by only about three and four percent respectively. My results also indicate that the interaction term for Quebec\*Post is not significant in my sample of all parents in specification 1 and is not significant for my sample of mothers but is significant for the sample of fathers. When not interacted with other variables, the variables for Quebec and Post have no statistically significant effect on life satisfaction for any of my three samples. These results suggest that, controlling for time use, living in Quebec in 2010 is predicted to increase parents' life satisfaction by about four percent from the pre-reform mean level of life satisfaction and is predicted to increase fathers life satisfaction by about eight to nine percent with and without controls for time use. My results also indicate that the interaction terms for Child Under Four\*Post and Quebec\*Child Under Four have no statistically significant effect on life satisfaction for any of the samples. When looking at the controls included in the triple difference identification strategy, I find the presence of an activity limitation and having been born outside of Canada both have a statistically significant negative effect on overall life satisfaction for all study samples. My results indicate that mothers and fathers are affected differently by their respective labour force statuses; unemployment has a negative effect on fathers' life satisfaction but has a positive effect on mothers' life satisfaction. I also find mothers and fathers are affected differently by their respective marital statuses; being divorced negatively affects mothers' life satisfaction but has no effect on fathers' life satisfaction. While time spent with household members has a positive effect on the life satisfaction of both mothers and fathers, I find time spent in unpaid labour also affects mothers and



fathers differently; time spent in the more female-typical tasks of housekeeping as well as cooking and washing up negatively affect fathers' life satisfaction but have no effect on mothers' life satisfaction.

To confirm nothing else occurred between 2005 and 2010 that might have affected parents' overall life satisfaction, I use a triple difference identification strategy. My results for the triple difference analysis are also presented in tables 6 through 8, where column 1 of all tables includes controls for background characteristics and column 2 includes additional time use controls. Column 1 of both My results for the triple difference identification strategy do not confirm the results of my difference in differences analysis. Table 6 presents my results of the combined sample of mothers and fathers. My results indicate that the coefficient of interest for the Quebec\*Child Under Four\*Post interaction term in Table 6 is statistically significant suggesting that the Quebec Parental Insurance Plan has a statistically significant negative effect on Quebec parents' overall life satisfaction for those parents exposed to the treatment (had a child under the age of four). My results of the combined sample of mothers and fathers, however, are only marginally significant (significant at 10%). The results are similar when controlling for time use in specification 2 confirming that the Quebec Parental Insurance Plan has a statistically significant negative effect on parents' overall life satisfaction and my results are not driven by changes in time use by parents. The mean level of life satisfaction, measured on a one-to-ten scale, where ten is the most satisfied with life overall and one is the least satisfied, for the combined sample of Quebec parents with children under the age of four prior to the reform was around 7.67 while the coefficient for the Quebec\*Child Under Four\*Post variable obtained in my analysis is

around -0.406. My results presented in Table 6 therefore suggest that the Quebec Parental Insurance Plan only decreased overall life satisfaction of exposed Quebec parents by about five percent, or 0.406 points from a pre-reform level of 7.67. I find the presence of an activity limitation, by comparison, is predicted to decrease overall life satisfaction of parents by about twelve percent or 0.93 points from the pre-reform level.

Similar to the difference in differences strategy, my results for the triple difference identification strategy are presented separately for mothers and fathers in Table 7 and in Table 8. Table 7 presents the triple difference results for the effect of the QPIP on mother's life satisfaction. My results in Table 7 confirm the difference in differences results seen in Table 4; the coefficient for Quebec\*Child Under Four\*Post is not statistically significant in either specification suggesting the Quebec Parental Insurance Plan has no statistically significant effect on the overall life satisfaction of Quebec mothers with children under the age of four.

Table 8 presents my triple difference results for fathers. As can be seen in table 8, my results indicate that the coefficient for Quebec\*Child Under Four\*Post is negative and statistically significant at the five percent level under both specifications. The triple difference identification strategy accounts for trends in Quebec that might be affecting Quebec parents' overall life satisfaction. Based on my findings for the difference in differences and triple difference estimation strategies, my results suggest that overall Quebec fathers are more satisfied with life after the reform while Quebec fathers with a child under the age of four are less satisfied with life following the parental leave reform. In terms of effect size, similar to my results obtained in Table 6 for the sample of all parents, I find the effect of the parental leave reform on fathers' life satisfaction relative

to their pre-reform mean level is not large. I find Quebec fathers to children under the age of four have a pre-reform mean level of overall life satisfaction of about 8.14 while my triple difference results in Table 8 suggest the Quebec Parental Insurance Plan decreased fathers' overall life satisfaction by about 0.75 points. My results in Table 8 therefore suggest that the Quebec Parental Insurance Plan decreased exposed fathers' pre-reform level of overall life satisfaction by about nine percent. By comparison, I find the presence of an activity limitation is predicted to decrease exposed Quebec fathers' pre-reform mean level of life satisfaction by about fourteen percent while time spent in housekeeping is predicted to decrease life satisfaction by less than one percent.

While my results indicate that the triple difference analysis of the effect of the Quebec Parental Insurance Plan on Quebec fathers is significant at the five percent level, my results for the sample of all parents is only marginally significant (significant at 10%). As can be seen in Table 7, I find the triple difference estimator for the effect of the Quebec Parental Insurance Plan on Quebec mothers' overall life satisfaction in both specifications have small coefficients relative to their standard errors and as such the Quebec Parental Insurance Plan is not found to have a significant effect on Quebec mother's overall life satisfaction. The marginally significant results I find for the triple difference estimator seen in Table 5 may be a result of the insignificant effect the Quebec Parental Insurance Plan has on Quebec mothers' life satisfaction masking some of the decrease in life satisfaction that is seen for Quebec fathers.

Since both the labour force status of the respondent and the respondents' spouse are potentially affected by the Quebec Parental Insurance Plan, I run the OLS regressions again excluding controls for labour force status of the respondent and then again

excluding labour force status controls for both the respondent and the respondents' spouse. The results I find excluding controls for labour force status are similar to the results I obtained in the original analysis which include labour force status controls and as such I do not include the results without labour force controls here.

## **6.2 HETEROGENEITY OF RESPONSE**

To test for heterogeneity in mothers' and fathers' responses to the Quebec Parental Insurance Plan, I carry out the triple difference identification strategy seen in equation 3 separately based on the respondents' highest level of education as well as their household income bracket. As my results of the difference in differences identification strategy indicate that the Quebec Parental Insurance Plan has no statistically significant effect on the life satisfaction of any of the three samples analyzed, I only re-estimate the triple difference strategy seen in equation 3. Tables 9.1-9.3 and Table 10.1-10.3 present the results by highest level of education for mothers and fathers respectively while Table 11.1-11.3 and Table 12.1-12.3 present the results for mothers and fathers by household income bracket. The Income brackets I use are based on the 2005 and 2010 Canadian Federal Income Tax brackets.

Table 9.1, Table 9.2 and Table 9.3 present my triple difference results for the effect of the Quebec Parental Insurance Plan on mothers' overall life satisfaction based on their highest level of education; where Table 9.1 presents results for mothers with a high school education or less, Table 9.2 presents results for mothers with some post-secondary schooling or diploma or certificate, and Table 9.3 presents results for mothers with a bachelor's degree or higher. Column one of Table 9.1 through Table 9.3 presents the results for mothers of all education levels seen in specification 1 of table 7. While the

triple difference results from column 1 indicate that the parental leave reform has no impact on Quebec mothers' overall life satisfaction, my results in Table 9.2 indicate that the reform did affect Quebec mothers with some post-secondary education. The coefficient of interest for Quebec\*Child Under Four\*Post is positive and statistically significant at the five percent level for mothers with some post-secondary education but is not significant for any other education level, as can be seen in Table 9.1, Table 9.2 and Table 9.3. The coefficient of interest for mothers with some post-secondary education seen in Table 9.2 suggests the reform has a large positive affect on Quebec mothers' overall life satisfaction. I find Quebec mothers with a child under four and some post-secondary education have a pre-reform mean level of life satisfaction of 7.52 while the coefficient for the Quebec\*Child Under Four\*Post interaction term in Table 9.2 is 2.11. My results therefore suggest the Quebec parental leave reform increased the overall life satisfaction of mothers with some post-secondary education by about 28 percent but did not have any statistically significant effect on any other level of education.

Table 10.1, Table 10.2 and Table 9.3 present my triple difference results for fathers by their highest level of education; where Table 10.1 presents results for fathers with a high school diploma or less, Table 10.2 presents results for fathers with some post-secondary schooling and fathers with a diploma or certificate, and Table 10.3 presents results for fathers with a bachelor's degree or higher. Column one of Table 10.1 through Table 10.3 presents the results for fathers of all education levels seen in specification 1 of table 8. My results in Table 10.1, Table 10.2 and Table 10.3 suggest that the Quebec Parental Insurance Plan has a statistically significant negative affect on fathers with a bachelor's degree but has no effect on the life satisfaction of fathers with other levels of

education. While the results from column 1 in Table 10.1, Table 10.2 and Table 10.3 suggest that the Quebec Parental Insurance Plan decreased exposed fathers' overall life satisfaction from their pre-reform mean level by about 9.2 percent, my results in Table 10.3 suggest that for fathers with a bachelor's degree, the reform has a greater effect on their life satisfaction. Quebec fathers with a bachelor's degree and a child under four have a pre-reform mean level of life satisfaction of 8.1, while the coefficient for exposed Quebec fathers with a bachelor's is -1.55. My results in Table 10.3 suggest that for exposed Quebec fathers with a bachelor's degree, the Quebec Parental Insurance Plan decreased their overall life satisfaction by about 19 percent. While my results suggest the Quebec reform decreased the life satisfaction of fathers with a bachelor's degree, my results also suggest the reform had no effect on fathers of any other education level. Small sample sizes and large standard errors may explain the results for some of my education levels. For example, my sample of fathers with less than a high school education is too small to give an estimate for the Quebec\*Child Under Four\*Post interaction term.

Table 11.1, Table 11.2 and Table 11.3 present my triple difference results for mothers by their household income bracket; where Table 11.1 presents results for mothers with a household income of less than \$40,000, Table 11.2 presents results for mothers with unknown household incomes or household incomes between \$40,000 and \$80,000, and Table 11.3 presents results for mothers with a household income over \$100,000 or an unknown household income. Column one of all tables presents the results for mothers of all income levels seen in specification 1 of table 7. While the results for the five household income brackets suggest that the reform has no effect on exposed

Quebec mothers' overall life satisfaction, for those mothers with an unknown household income, seen in Table 11.3, my results indicate that the reform has a statistically significant negative affect on their overall life satisfaction; the coefficient for the Quebec\*Child Under Four\*Post variable is statistically significant at the five percent level for those mothers with an unknown household income. I find the pre-reform mean level of life satisfaction for Quebec mothers with an unknown household income is 7.87, while the coefficient for Quebec\*Child Under Four\*Post obtained in Table 11.3 is -2.49. My results therefore suggest that for exposed Quebec mothers with an unknown household income, the Quebec Parental Insurance Plan decreased their pre-reform level of life satisfaction by about 32 percent.

Table 12.1, Table 12.2 and Table 12.3 presents my triple difference results for fathers by household income bracket; where Table 12.1 presents results for fathers with a household income of less than \$40,000, Table 12.2 presents results for fathers with unknown household incomes or household incomes between \$40,000 and \$80,000 and Table 12.3 presents results for fathers with household incomes over \$100,000 and unknown household incomes. Column one of aa tables presents the results for fathers of all income levels seen in specification 1 of table 8. While the results in column 1 suggest that the Quebec Parental Insurance plan decreased exposed fathers pre-reform mean level of life satisfaction by 9.2 percent, my results in Table 12.1, Table 12.2 and Table 12.3 suggest that fathers life satisfaction is not affected by the reform for any of the income brackets analyzed; the coefficient for Quebec\*Child Under Four\*Post is not statistically significant for any income bracket. As my sample of fathers with household incomes below \$20,000 only consists of 60 respondents, the sample is too small to estimate

coefficients for some variables. I have therefore omitted this regression from my analysis as the sample is too small to provide any information on the effect of the reform.



## CHAPTER 7 THREATS TO IDENTIFICATION

In addition to the parallel trend assumption another assumption of the difference in differences estimation strategy is that there can be no selection into the treatment or control groups. Since the Quebec Parental Insurance Plan gives fathers access to five weeks of non-transferable leave as well as a greater income replacement rate and cap on earnings, there is the concern that parents may have altered the timing of the birth of their child to qualify for the Quebec Parental Insurance Plan. Parents may have delayed the timing of caesarean-sections to after January 1, 2006, for instance in order to qualify for the Quebec Parental Insurance Plan. To address this concern, I include a graph of monthly births surrounding the introduction of the 2006 Quebec Parental Insurance Plan, as can be seen in Figure 1. While it does appear that the number of births dropped slightly in December of 2005 and then increased slightly in January of 2006, a similar pattern can be seen in December of 2006, suggesting this is just a natural change in the rate of births. Since the General Social Survey does not include the date of birth of the youngest child, I am unable to drop those births occurring around the policy change date and then run the analysis again to test whether there is some selection into the treatment group.

While the two cycles of the General Social Survey on time use I use here are only available five years, other cycles of the General Social Survey covering different topics in depth are available yearly. If possible, future research could therefore utilize different versions of the General Social Survey to confirm the parallel trend assumption holds and that the control group I use in this analysis is appropriate.

## CHAPTER 8 DISCUSSION

### 8.1 DISCUSSION OF MAIN RESULTS

In this section I will focus solely on the results of the triple difference estimation strategy conducted separately for mothers and fathers since the difference in differences strategy did not find significant results and my results suggest mothers and fathers are affected differently by the policy change. The triple difference identification strategy is used to identify any changes in overall life satisfaction between 2005 and 2010 for Quebec parents with a child under four relative to all other Canadian parents. The triple difference strategy I use here controls for changes occurring both in Canada and Quebec-wide changes affecting both Quebec parents with young children as well as Quebec parents who are not eligible for paid leave under the Quebec Parental Insurance Plan. Since my results of the triple difference strategy for all parents and just fathers suggest the Quebec Parental Insurance Plan is associated with a decrease in overall life satisfaction while my difference in differences strategy results for these two samples did not, my results suggest that overall Quebec fathers are more satisfied with life after the reform while Quebec fathers with a child under the age of four are less satisfied with life following the parental leave reform.

Consistent with earlier predictions, my findings suggest Quebec fathers are negatively affected by the Quebec Parental Insurance Plan while Quebec mothers are not. The Quebec Parental Insurance Plan not only reduces the opportunity cost of fathers taking leave as both the replacement rate and cap on earning increased, but also includes a five-week dad-only parental leave. This five-week leave cannot be transferred to mothers and therefore for families where fathers choose not to take, the leave is forfeit.

The change from the Employment Insurance system, where fathers have no individual right to paid leave, to the Quebec Parental Insurance Plan may therefore be seen as a signal to Quebec parents as to the importance of fathers taking leave. While past literature finds fathers fear negative work consequences as a result of taking leave following the birth of a child, the change to the Quebec Parental Insurance Plan designated a portion of the leave specifically to fathers. As a result of the dad-only leave, fathers need not fear negative labour market consequences if they are taking leave specifically set aside for themselves.

While the change to the Quebec Parental Insurance Plan might alleviate Quebec fathers' concerns about negative work consequences, the Quebec Parental Insurance Plan may also be seen as a shift in gender roles by fathers. Past literature indicates, that prior to the introduction of dad-only leave policies in various countries, the proportion of mothers taking paid leave is higher than the proportion of fathers taking leave. Under the theory of Akerlof and Kranton (2000) deviations from ideal own and spouse behaviours are expected to decrease the overall life satisfaction of parents. If prior to the Quebec parental leave reform Quebec families held traditional views on ideal own and spouse behaviors as well as more traditional gender roles, policies that change ideal own and spouse behaviours decrease utility. If fathers, who previously saw themselves as the primary breadwinner, now feel obligated to take paid leave following the birth of a child, Akerlof and Kranton (2000) predict decreases in fathers' life satisfaction. Akerlof and Kranton (2000) predict a similar effect for mothers' who see themselves as the primary caregiver.

While the dad-only leave may be seen as a change in gender roles by exposed parents, the introduction of dad-only leave can also alter the long-run division of household labour. Patnaik (2019), for instance, find that following the switch to the Quebec Parental Insurance Plan, fathers are now taking on a larger share of traditionally female tasks. The change from a more traditional division of labour prior to the reform to households where the division of labour is less traditional, could also be seen as a change to traditional gender roles by Quebec mothers and fathers. Akerlof and Kranton (2000) note that behaviors that conform to a person's identity increase utility, while those behaviors that do not conform decrease utility. If a traditional father, whose identity is the primary breadwinner of the household spent time in paid labour, Akerlof and Kranton (2000) predict his utility to increase, while time spent in childcare or housekeeping is predicted to decrease it. If following the Quebec reform fathers are now taking on more traditionally female-type tasks such as housework, while women are now spending more time in paid work, Akerlof and Kranton (2000) predict negative effects on parents' respective utility.

The results of my analysis indicate that, when evaluated separately, the Quebec Parental Insurance Plan had no effect on Quebec mothers' overall life satisfaction but did have a negative effect on Quebec fathers' overall life satisfaction. While the Quebec parental leave reform is found to alter the long-run division of household labour, specification two of my analysis controls for time spent in unpaid labour before and after the switch to the Quebec Parental Insurance Plan.

My results suggest that the estimates obtained here are not driven by changes in time use as my results obtained with and without time use controls yield results that are

similar in magnitude for both mothers and fathers. A possible explanation for my results obtained here may be due to changing gender roles as the dad-only label might be interpreted as a signal to fathers to take paid leave. Fathers who may see themselves as the primary breadwinner may now feel they are expected to take on some of the caregiving responsibilities and participate in parental leave. As Akerlof and Kranton (2000) predict, behaviors that violate a person's own ideal behaviors, in this scenario taking parental leave, are associated with a decline in life satisfaction. While my results indicate the Quebec Parental Insurance Plan has an effect on Quebec fathers' life satisfaction, it has no statistically significant effect on Quebec mothers' life satisfaction. In countries without dad-only paid leave, mothers' participation rates in parental leave are higher than fathers' participation rates. Patnaik (2019) finds a similar situation in Quebec prior to the parental leave reform; Quebec mothers were on average taking 9.5 months of paid leave and only about sixty percent of Quebec families were using the entire paid leave they were entitled to. Therefore, for the majority of Quebec families, the five-week dad-only leave does not disrupt the paid leave mothers are entitled as the majority of Quebec families were leaving benefits unclaimed; under the employment insurance system in Quebec, the majority of fathers could take paid leave but chose not to. Since the Quebec Parental Insurance Plan does not include similar changes to encourage mothers' participation in paid leave as the reform did for fathers, mothers' gender roles are not changed in the same manner as fathers' gender roles are.

Furthermore, while the Quebec reform includes a five-week dad-only leave, the Quebec Parental Insurance Plan also offers greater benefits. In families where fathers are the higher earner Becker (1965) predicts fathers spend time in paid labour while mothers

spend time in unpaid labour. While the employment insurance system does offer parents a fifty-five percent income replacement rate with a cap on earnings of CAD \$35,000, the Quebec Parental Insurance Plan offers a higher income replacement rate as well as a higher cap on earnings. Under the employment insurance system, even though about sixty percent of Quebec fathers had paid parental leave available to them, fathers' participation in paid leave prior to the Quebec reform never exceeded twenty-two percent (Patnaik, 2019). The low participation rates of fathers may have been a result of stigma against fathers taking, however, financial responsibilities might also play a role. High-earning fathers taking leave under the employment insurance system suffer a greater drop in household income than do similarly earning fathers under the Quebec Parental Insurance Plan. The Quebec Parental Insurance Plan therefore not only reduces the stigma against fathers taking leave, but also reduces the opportunity cost of fathers taking leave; fathers may now feel obligated to take leave as there are fewer negative consequences of taking leave under the Quebec Parental Insurance Plan. The dad-only label in combination with greater benefits through the Quebec Parental Insurance Plan may act as a signal to fathers that they should take paid leave which, in the case of a father who sees himself as the primary breadwinner for the family, may not be Quebec fathers' ideal own behavior therefore reducing their life satisfaction.

While the increase in benefits both mothers and fathers, my results suggest mothers are not affected by the reform while fathers' life satisfaction is worse off, providing some evidence that the increase in household earnings while on paid leave as a result of the reform is not affecting parents' life satisfaction.

Although my results obtained here suggest changes to fathers' own gender roles may be explaining the results, I cannot rule out other explanations. As the Quebec Parental Insurance Plan includes both a dad-only leave as well as an increase in benefits, I cannot determine whether my results obtained here are a result of the dad-only leave, the increase in benefits or a result of both new features. Both the dad-only leave and the increase in benefits may be seen as a signal to Quebec fathers to participate in paid leave, thereby disrupting more traditional gender roles. As the triple difference identification strategy I use here detects changes in the life satisfaction of Quebec parents with children under four between 2005 and 2010 compared to changes for all other Canadian parents, there is the possibility that my results are picking up some other change which might affect the life satisfaction of Quebec parents with young children.

My results found here are consistent with the results found by Brodeur and Connolly (2013). Brodeur and Connolly (2013) evaluate the effects of the Quebec subsidized daycare program on parents' overall life satisfaction and find that the life satisfaction of those mothers and fathers exposed to the reform decrease following the policy change. Brodeur and Connolly (2013) note that the results seen for fathers are driven by changing gender roles; the daycare program increased women's labour force participation rates and as a result fathers now are no longer considered the sole breadwinner for the family, thereby decreasing their life satisfaction. Brodeur and Connolly (2013) also note that the results seen for Quebec mothers are a result of negative child outcomes and mothers increased rates of depression as a result of the subsidized daycare program.

## 8.2 DISCUSSION OF HETEROGENEOUS RESPONSE

Similar to Brodeur and Connolly (2013), to determine whether the results obtained in my triple difference analysis are driven by a particular socioeconomic group, I analyze the sample of mothers and fathers separately based on their highest level of education. I also analyze the sample of mothers and fathers based on household income, however, since the Quebec Parental Insurance Plan might affect labour force status, there may be endogeneity issues related to income. Furthermore, my results seen in Table 11.1 through Table 11.3, and Table 12.1 through Table 12.3 suggest the parental leave reform has no effect for exposed Quebec fathers in any income bracket, while only exposed Quebec mothers in the unknown income bracket are affected by the reform. Kim et al. (2010) evaluate missing income data from a postpartum survey in California and find respondents with lower incomes tend to be less educated, while Turrell (2000) finds that higher socio-economic status respondents in Australia have a higher probability of not reporting their income in surveys. As such, it is difficult to interpret the results for mothers with unknown income. As the Quebec Parental Insurance Plan offers increased benefits for parents and did not decrease mothers' entitlement to parental leave, the results seen in Table 11.3 may be a result of another effect of the Quebec reform. Further research on the Quebec Parental Insurance Plan might help explain my results seen in Table 11.3.

As there are endogeneity issues related to income and I cannot determine the socioeconomic status of respondents who report unknown income, my discussion here will focus solely on the results seen when evaluating the effect of the reform by highest level of education.



Becker's (1965) theory of household behavior suggests that family members specialize according to market wages; the higher earner specializes in paid labour while the lower earner specializes in unpaid labour. As men typically earn more than women, Becker's (1965) theory of household behavior predicts men devote their time to paid labour while women devote their time to unpaid labour. Under Becker's (1965) theory of household behavior, mothers are predicted to take paid parental leave following the birth of a child, while fathers are predicted to return to work following the birth of a child. As paid parental leave only replaces a portion of a parents' pre-leave wage up to a cap, men, who earn a greater wage than women, have a higher opportunity cost of taking leave. Under the Canadian employment insurance system, parents are compensated at 55 percent of their pre-reform earnings up to a cap of CAD \$39,000, and as such high-income fathers may be less likely to take paid leave as the financial consequences are larger. The Quebec Parental Insurance Plan not only includes a dad-only leave, but also offers a higher replacement rate and cap on earnings; the Quebec Parental Insurance Plan includes a 70 percent income replacement rate and a cap on earnings of CAD \$57,000. The Quebec Parental Insurance Plan therefore lowers fathers' opportunity cost of taking leave. The increased benefits parents are now eligible for under the Quebec Parental Insurance Plan has a greater impact on higher educated fathers than fathers with low levels of education, as earnings tend to increase with education and fathers with higher income are more likely to reach the cap on earnings than are lower-income fathers.

The increase in available benefits, especially the increase cap on earnings, affects higher-educated fathers more than fathers with lower education; highly educated fathers face greater financial consequences from taking leave than fathers with lower levels of

education as they are more likely to reach the cap on earnings than are lower-income fathers. In keeping with the identity theory of Akerlof and Kranton (2000), the combined implementation of the dad-only leave as well as the increased cap on earnings might disrupt the gender roles of Quebec fathers with high levels of education to a greater extent than Quebec fathers with lower levels of education. The results in Table 10.1, Table 10.2 and Table 10.3 appear to confirm my hypothesis; exposed Quebec fathers with a bachelor's degree suffer a statistically significant decrease in overall life satisfaction following the parental leave reform, while Quebec fathers with lower levels of education are not affected by the reform. This hypothesis requires the life satisfaction of fathers with education levels greater than a bachelor's degree to also suffer a decrease following the reform. My results in Table 10.3 do not confirm this hypothesis and instead suggest the life satisfaction of fathers with more than a bachelor's degree are not affected by the reform in any statistically significant manner. However, for the sample of fathers with more than a bachelors' degree, seen in Table 10.3, the coefficient of the Quebec\*Child Under Four\*Post interaction term has large standard errors in comparison to the coefficient. The number of observations for fathers with more than a bachelor's degree in my sample is only two-hundred, while the sample of Quebec fathers with a child under the age of four and more than a bachelor's degree in 2005 and 2010 is only ten and twelve respondents respectively. It is therefore possible that the small sample size of fathers with more than a bachelor's degree does not allow my triple difference identification strategy to find any effect of the reform on exposed Quebec fathers' overall life satisfaction.

While small sample sizes may not allow my analysis to detect any effect of the reform on fathers with more than a bachelor's degree, there is also the possibility that fathers with more than a bachelor's degree chose not to take paid leave under employment insurance and continue not to take paid leave under the Quebec Parental Insurance Plan. My results for Quebec fathers seen in Table 10.3 may therefore provide evidence that the parental leave reform has no effect on fathers' life satisfaction as fathers with more than a bachelor's degree continue not to participate in paternity leave.

My results also suggest fathers with less than a bachelor's degree are not affected by the reform. It is therefore possible that my results obtained in Table 10.1 and Table 10.2 provide evidence that the leave-taking of fathers with less than a bachelor's degree are unaffected by Quebec Parental Insurance Plan. Similar to the results for fathers with more than a bachelor's degree, my results may not have identified any effect of the Quebec reform on fathers' life satisfaction as the Quebec reform may not have altered fathers' leave-taking behavior.

While my results for fathers with more or less than a bachelor's degree may show no effect of the reform as their leave-taking behaviour was unaltered by the reform, the results of Mansdotter et al. (2010) may suggest otherwise. Mansdotter et al. (2010) evaluate the fathers who choose to take paternity leave in Sweden and find that fathers who choose to take 90 to 155 days of paid leave are more likely to: have a university degree and have a higher income while fathers who choose not to take leave are more likely to have completed the compulsory level of schooling and have lower incomes. However, Mansdotter et al. (2010) did find that more equal earnings between parents in a household increases the probability of fathers participating in paid leave while fathers

with unequal earnings relative to their spouse are less likely to participate in paternity leave; fathers who earn either more or less than the mother are less likely to participate in paid leave.

It is therefore possible that my results seen in Table 10.1 through Table 10.3 are a result of unchanging leave-taking behavior in households where parents have unequal earnings, while fathers with a bachelor's degree live in households with more equal incomes between parents. Fathers in households with unequal earnings compared to the mother are less likely to take leave than in households where parents have similar incomes. Fathers with a bachelor's degree may have been negatively affected by the reform as this group of fathers would be most incentivized to take leave and therefore experience a decrease in life satisfaction. Future research could therefore extend on my analysis performed here and evaluate the effect of the reform for households based on both parents incomes or education levels.

Under the employment insurance system, parents who want to take paid leave face more strict eligibility criteria, as such parents who do not work full-time may not qualify for paid parental leave. As fathers' rates of full-time employment are higher than mothers, fathers are more likely to qualify for paid leave under employment insurance than mothers (Uppal, 2015). While fathers and mothers' employment rates differ so too do the employment rates of mothers with different levels of education. Evidence suggests that mothers with lower levels of education are less likely to work full-time than are mothers with higher levels of education. Kanji (2011), for instance, evaluates what factors determine whether United Kingdom mothers with a partner work full-time following the birth of their first child and whether they continue to work full-time until

the child attends school. Kanji (2011) finds that the probability of mothers working full-time increases with education, where higher-educated mothers are more likely to work full-time than are mothers with lower levels of education. As mothers with lower levels of education are less likely to work full-time, they might not qualify for paid parental leave through employment insurance. Qualifying for paid leave is easier through the Quebec Parental Insurance Plan than is qualifying through employment insurance; under the Quebec Parental Insurance Plan parents who want to take parental leave only have to have two-thousand dollars in insurable earnings during the qualifying period as compared to the employment insurance system which requires an individual to work 600 hours of employment to qualify for benefits. While fathers may not have trouble qualifying for paid leave under the employment insurance system, mothers who do not work full-time may not qualify for paid leave. As men are more likely to work full-time, and women with lower levels of education tend to work fewer hours than do women with greater levels of education, I predict the Quebec parental leave reform has the greatest impact on those mothers with lower levels of education. Mothers with lower levels of education who do not work full-time hours benefit most from the reform as the lower eligibility allows mothers with fewer working hours to more easily qualify for paid leave.

My results in Table 9.2 confirm that for women with some post-secondary education, the Quebec parental leave reform has a positive effect on exposed mothers' overall life satisfaction however, women with a high school diploma or less are not affected by the reform. If the Quebec Parental Insurance Plan affects mothers' life satisfaction by allowing mothers who may not work full-time hours to qualify for benefits through the Quebec Parental Insurance Plan, mothers with a high school diploma or less

should also be positively affected by the reform, however, my results do not support this theory. While exposed Quebec mothers with a high diploma or less are not positively affected by the reform, this may in part be due to small sample sizes. The coefficients for the Quebec\*Child Under Four\*Post interaction term for women with a high school diploma or less in Table 9.1 are not statistically significant as they have large standard errors relative to their coefficients. The sample of exposed Quebec mothers with a high school diploma or less only consists of about 30 respondents for both samples. The mechanism behind the response of mothers with some post-secondary education may therefore be better understood with a larger sample of respondents.

While small sample sizes may prevent my analysis from detecting any effect of the reform on mothers with lower levels of education, there is also the possibility that, similar to fathers, the Quebec Parental Insurance Plan might not have altered the leave-taking behavior of mothers with a high school diploma or less. Mothers with low levels of education are less likely to work full-time. While the Quebec Parental Insurance Plan lowered the eligibility criteria of parental leave, those mothers with a high school diploma or less may still not qualify for paid leave under the Quebec Parental Insurance Plan.

To test whether the mothers' response to the Quebec Parental Insurance Plan is a result of mothers currently being out on maternity leave, I remove mothers who reported a having a child under the age of one from the sample and re-estimate the triple difference identification strategy. The results are similar to those seen in Table 9.1, 9.2 and Table 9.3 indicating that for mothers with some post-secondary education, the

Quebec reform still has a statistically significant effect on their life satisfaction, although the results are now only marginally significant.

## CHAPTER 9 CONCLUSION

On January 1, 2006 Quebec implemented the Quebec Parental Insurance Plan, thereby replacing the employment insurance plan which continues to be used by the rest of the Canadian provinces. The Quebec Parental Insurance Plan offers greater benefits, reduced eligibility requirements compared to the employment insurance system and also includes a five-week non-transferable leave for fathers. Past research on dad-only leave policies finds that changes to paternity leave policies can affect marital stability in both negative and positive ways, however, little research examines the impact of dad-only leave policies and their effect on parents' self-reported overall life satisfaction.

Since the Quebec Parental Insurance Plan includes features to encourage fathers' participation in paid leave, my analysis investigates whether the Quebec Parental Insurance Plan affects the overall life satisfaction of Quebec parents. While the results of my difference in differences identification strategy finds the Quebec parental leave reform has no effect on life satisfaction, the results of my triple difference identification strategy suggest otherwise. My triple difference results suggest that the Quebec Parental Insurance Plan implementation decreased Quebec parents' overall life satisfaction however the results are only marginally significant. When evaluating mothers and fathers separately, I find mothers' overall life satisfaction is not affected by the Quebec Parental Insurance Plan however, exposed fathers suffered a statistically significant decrease in overall life satisfaction following the parental leave reform.

My results appear to be driven by fathers with a bachelor's degree and by mothers with some post-secondary schooling. While my results provide some evidence to support the theory that the life satisfaction of fathers with high levels of education decreases with



changes to traditional gender roles while mothers with low levels of education benefit from easier access to paid parental leave, further analysis is required to better understand the mechanisms behind my results.

The results I find here coincide with previous literature on changes to parental leave policies where men's life satisfaction is found to be negatively affected by changes to gender roles while the life satisfaction of women with low levels of education is positively affected by policy changes.

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## APPENDIX A DESCRIPTIVE STATISTICS

**Table 1.1:** Descriptive Statistics of 2005 GSS Data for Canadian parents with a child three years of age or younger where each cell denotes proportions.

	Quebec: Child 0-3 (N=288)	Canada: Child 0-3 (N=1230)	Difference: Child 0-3
Mean Level of Life Satisfaction	7.8667	7.8959	
Marital Status:			
<i>Married</i>	0.4201	0.7748	-0.3547***
Common-law	0.4653	0.1081	0.3572***
Widowed	0.0035	0.0033	0.0002
Separated	0.0347	0.0309	0.0038
Divorced	0.0069	0.0081	-0.0012
Single Never Married	0.0694	0.0748	-0.0054
Respondent Age Bracket:			
15-24	0.1076	0.0854	0.0222
25-34	0.5208	0.5325	-0.0117
35-44	0.3403	0.3423	-0.002
45-54	0.0278	0.0374	-0.0096
55-64	0.0035	0.0016	0.0019
Employment Status			
<i>Works Full-Time</i>	0.5208	0.7081	-0.1873**
Works Part-Time	0.0833	0.0909	-0.0076
Student & Works	0.0035	0.0089	-0.0054
Student & Not Works	0.0417	0.0187	0.023
No Hours of Work	0.3264	0.2951	0.0313
Unknown	0.0243	0.0073	0.017
Spouse Employment Status:			
<i>Employed</i>	0.6632	0.635	0.0282
Not-Employed	0.2118	0.2301	-0.0183
Unknown	0.125	0.135	-0.01
Respondents' Education:			
Less than High School	0.0868	0.1148	-0.028
High School	0.0938	0.1053	-0.0115
Some Post Secondary	0.1458	0.0909	0.0549

	Quebec: Child 0-3	Canada: Child 0-3	Difference: Child 0-3
<i>Diploma/Certificate</i>	0.3649	0.2819	0.0117**
Bachelor's Degree	0.2257	0.2344	-0.0087
Higher than Bachelor's	0.0729	0.0861	-0.0132
Spouses' Education:			
Less than High School	0.0694	0.0526	0.0168
High School	0.0938	0.1579	-0.0641
Some Post Secondary	0.1181	0.0622	0.0559
<i>Diploma/Certificate</i>	0.3646	0.3589	0.0057
Bachelor's Degree	0.1979	0.2153	-0.0174
Higher than Bachelor's	0.0833	0.0766	0.0067
Unknown	0.1424	0.2775	-0.1351
Household Income:			
No Income	0.0625	0.0919	-0.0294
Less than \$5000	0	0.0041	-0.0041
\$5000-9999	0.0069	0.0122	-0.0053
\$10000-14999	0.0278	0.0268	0.001
\$15000-19999	0.0347	0.0341	0.0006
\$20000-29999	0.0556	0.0545	0.0011
\$30000-39999	0.1181	0.0943	0.0238
\$40000-49999	0.1076	0.087	0.0206
\$50000-59999	0.125	0.0935	0.0315
<i>\$60000-79999</i>	0.1424	0.1585	-0.0161
\$80000-99999	0.1042	0.1154	-0.0112
\$100000 and over	0.1181	0.1699	-0.0518
Unknown	0.1597	0.1463	0.0134
<i>Canadian Born</i>	0.816	0.8016	0.0144
Immigrant	0.0814	0.01984	0.06156
Number of Children:			
One	0.434	0.2632	0.1708
<i>Two</i>	0.3472	0.5167	-0.1695
Three	0.191	0.1722	0.0188
Four or More	0.0278	0.0478	-0.02

Where: \* p<0.10, \*\* p<0.05, \*\*\* p<0.001



**Table 1.2:** Descriptive Statistics of 2005 GSS Data for Canadian parents with a child between the ages of five and eight where each cell denotes proportions.

	Quebec: Child 5-8 (N=209)	Canada: Child 5-8 (N=911)	Difference: Child 5-8
Mean Level of Life Satisfaction	7.5122	7.5767	
Marital Status:			
<i>Married</i>	0.4163	0.7047	-0.2884***
Common-law	0.3349	0.0779	0.257***
Widowed	0.0096	0.0033	0.0063
Separated	0.0813	0.0779	0.0034
Divorced	0.0478	0.0439	0.0039
Single Never Married	0.11	0.0922	0.0178
Respondent Age Bracket:			
15-24	0.0048	0.0066	-0.0018
25-34	0.2679	0.2799	-0.012
35-44	0.5789	0.5982	-0.0193
45-54	0.1435	0.112	0.0315
55-64	0.0048	0.0011	0.0037
65-74	0	0.0011	-0.0011
Employment Status			
<i>Works Full-Time</i>	0.5935	0.6959	-0.1024
Works Part-Time	0.0764	0.1043	-0.0279
Student & Works	0.0096	0.0055	0.0041
Student & Not Works	0.0191	0.0176	0.0015
No Hours of Work	0.1722	0.1658	0.0064
Unknown	0	0.011	-0.011
Spouse Employment Status:			
<i>Employed</i>	0.622	0.6378	-0.0158
Not-Employed	0.1196	0.1284	-0.0088
Unknown	0.2584	0.2338	0.0246
Respondents' Education:			
Less than High School	0.0821	0.0812	0.0009
High School	0.1602	0.1603	-1.00E-04
Some Post Secondary	0.1455	0.1614	-0.0159

	Quebec: Child 5-8	Canada: Child 5-8	Difference: Child 5-8
<i>Diploma/Certificate</i>	0.2805	0.3414	-0.0609
Bachelor's Degree	0.2455	0.1855	0.06
Higher than Bachelor's	0.0756	0.0626	0.013
Spouses' Education:			
Less than High School	0.0577	0.0735	-0.0158
High School	0.1976	0.2141	-0.0165
Some Post Secondary	0.0846	0.0714	0.0132
<i>Diploma/Certificate</i>	0.2081	0.1954	0.0127
Bachelor's Degree	0.2374	0.1482	0.0892
Higher than Bachelor's	0.0683	0.0549	0.0134
Unknown	0.1463	0.2426	-0.0963
Household Income:			
No Income	0.0335	0.0604	-0.0269
Less than \$5000	0.0096	0.0088	0.0008
\$5000-9999	0.0431	0.0077	0.0354
\$10000-14999	0.0239	0.296	-0.2721
\$15000-19999	0.0335	0.285	-0.2515
\$20000-29999	0.0478	0.0571	-0.0093
\$30000-39999	0.0718	0.0922	-0.0204
\$40000-49999	0.067	0.0845	-0.0175
\$50000-59999	0.1196	0.0933	0.0263
<i>\$60000-79999</i>	0.1579	0.1372	0.0207
\$80000-99999	0.0813	0.1196	-0.0383
\$100000 and over	0.2249	0.1778	0.0471
Unknown	0.1196	0.1603	-0.0407
<i>Canadian Born</i>	0.8469	0.8189	0.028
Immigrant	0.01531	0.01811	-0.0028
Number of Children:			
One	0.3797	0.2678	0.1119
<i>Two</i>	0.4106	0.4907	-0.0801
Three	0.1545	0.2031	-0.0486
Four or More	0.0553	0.0384	0.0169

Where: \* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 2.1:** Descriptive Statistics of 2010 GSS Data for Canadian parents with a child three years of age or younger where each cell denotes proportions.

Variable	Quebec: Child 0-3	Canada: Child 0-3	Difference: Child 0-3
	N=200	(N=1062)	
Mean Level of Life Satisfaction	7.6733	7.7909	
Marital Status:			
<i>Married</i>	0.47	0.775	-0.305***
Common-law	0.48	0.1205	0.3595***
Widowed	0	0.0028	-0.0028
Separated	0.015	0.0188	-0.0038
Divorced	0	0.0056	-0.0056
Single Never Married	0.035	0.0753	-0.0403
Respondent Age Bracket:			
15-24	0.06	0.0499	0.0101
25-34	0.495	0.5527	-0.0577
35-44	0.41	0.3606	0.0494
45-54	0.025	0.032	-0.007
55-64	0.005	0.0038	0.0012
65-74	0.005	0.0009	0.0041
Employment Status			
<i>Works Full-Time</i>	0.685	0.6299	0.0551
Works Part-Time	0.075	0.0989	-0.0239
Student & Works	0.01	0.0075	0.0025
Student & Not Works	0.03	0.0169	0.0131
No Hours of Work	0.19	0.2411	-0.0511
Unknown	0.01	0.0056	0.0044
Spouse Employment Status:			
<i>Employed</i>	0.705	0.6723	0.0327
Not-Employed	0.235	0.1987	0.0363
Unknown	0.06	0.129	-0.069
Respondents' Education:			
Less than High School	0.045	0.064	-0.019
High School	0.06	0.096	-0.036
Some Post Secondary	0.08	0.1356	-0.0556
<i>Diploma/Certificate</i>	0.39	0.3041	0.0859

	Quebec: Child 0-3	Canada: Child 0-3	Difference: Child 0-3
Bachelor's Degree	0.295	0.2731	0.0219
Higher than Bachelor's	0.115	0.0885	0.0265
Spouses' Education:			
Less than High School	0.06	0.0461	0.0139
High School	0.165	0.1629	0.0021
Some Post Secondary	0.1	0.0763	0.0237
<i>Diploma/Certificate</i>	0.235	0.226	0.009
Bachelor's Degree	0.255	0.2627	-0.0077
Higher than Bachelor's	0.095	0.0866	0.0084
Unknown	0.09	0.1394	-0.0494
Household Income:			
No Income	0.03	0.0744	-0.0444
Less than \$5000	0	0	0
\$5000-9999	0.01	0.0028	0.0072
\$10000-14999	0.015	0.0226	-0.0076
\$15000-19999	0.04	0.0141	0.0259
\$20000-29999	0.045	0.0433	0.0017
\$30000-39999	0.075	0.0574	0.0176
\$40000-49999	0.07	0.0546	0.0154
\$50000-59999	0.09	0.065	0.025
<i>\$60000-79999</i>	0.15	0.1337	0.0163
\$80000-99999	0.105	0.1469	-0.0419
\$100000 and over	0.185	0.2213	-0.0363
Unknown	0.135	0.1224	0.0126
<i>Canadian Born</i>	0.765	0.7655	-0.0005
Immigrant	0.235	0.2345	0.0005
Number of Children:			
One	0.37	0.3625	0.0075
<i>Two</i>	0.385	0.4143	-0.0293
Three	0.225	0.1525	0.0725
Four or More	0.02	0.0706	-0.0506

Where: \* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 2.2:** Descriptive Statistics of 2010 GSS Data for Canadian parents with a child between the ages of five and eight where each cell denotes proportions.

Variable	Quebec: Child 5-8 (N=114)	Canada: Child 5-8 (N=648)	Difference: Child 5-8
Mean Level of Life Satisfaction	7.7027	7.4786	
Marital Status:			
<i>Married</i>	0.3772	0.733	-0.3558***
Common-law	0.3772	0.0741	0.3031***
Widowed	0.0088	0.0031	0.0057
Separated	0.0526	0.0586	-0.006
Divorced	0.0439	0.0478	-0.0039
Single Never Married	0.1404	0.0818	0.0586
Respondent Age Bracket:			
15-24	0	0.0031	-0.0031
25-34	0.2456	0.196	0.0496
35-44	0.6316	0.6219	0.0097
45-54	0.1228	0.1713	-0.0485
55-64	0	0.0077	-0.0077
65-74	0	0	0
Employment Status			
<i>Works Full-Time</i>	0.693	0.6327	0.0603
Works Part-Time	0.0614	0.1142	-0.0528
Student & Works	0	0.0077	-0.0077
Student & Not Works	0.0175	0.0154	0.0021
No Hours of Work	0.2193	0.2176	0.0017
Unknown	0.0088	0.0123	-0.0035
Spouse Employment Status:			
<i>Employed</i>	0.6228	0.6852	-0.0624
Not-Employed	0.0965	0.0957	0.0008
Unknown	0.2807	0.2191	0.0616
Respondents' Education:			
Less than High School	0.0702	0.0494	0.0208
High School	0.0877	0.1235	-0.0358
Some Post Secondary	0.114	0.1173	-0.0033
<i>Diploma/Certificate</i>	0.3772	0.3488	0.0284

	Quebec: Child 5-8	Canada: Child 5-8	Difference: Child 5-8
Bachelor's Degree	0.2368	0.2407	-0.0039
Higher than Bachelor's	0.0614	0.0818	-0.0204
Spouses' Education:			
Less than High School	0.0351	0.0571	-0.022
High School	0.0965	0.1667	-0.0702
Some Post Secondary	0.0789	0.0648	0.0141
<i>Diploma/Certificate</i>	0.2368	0.2022	0.0346
Bachelor's Degree	0.193	0.2022	-0.0092
Higher than Bachelor's	0.0789	0.0787	0.0002
Unknown	0.2807	0.2284	0.0523
Household Income:			
No Income	0.0351	0.0664	-0.0313
Less than \$5000	0	0.0015	-0.0015
\$5000-9999	0.0175	0.0031	0.0144
\$10000-14999	0.0263	0.0139	0.0124
\$15000-19999	0.0175	0.0309	-0.0134
\$20000-29999	0.0965	0.0417	0.0548
\$30000-39999	0.0175	0.0694	-0.0519
\$40000-49999	0.0702	0.0679	0.0023
\$50000-59999	0.0789	0.0556	0.0233
<i>\$60000-79999</i>	0.0877	0.142	-0.0543
\$80000-99999	0.1667	0.1157	0.051
\$100000 and over	0.2018	0.1852	0.0166
Unknown	0.1404	0.1404	0
<i>Canadian Born</i>	0.8158	0.7489	0.0669
Immigrant	0.1842	0.2531	-0.0689
Number of Children:			
One	0.2719	0.3117	-0.0398
<i>Two</i>	0.5351	0.4753	0.0598
Three	0.1579	0.1744	-0.0165
Four or More	0.035	0.0386	-0.0036

Where: \* p<0.10, \*\* p<0.05, \*\*\* p<0.001

## APPENDIX B OLS RESULTS

**Table 3** - Difference in Differences Results for the Effect of the Quebec Parental Insurance Plan Implementation on Overall Life Satisfaction of Parents

	<b>Specification 1</b>	<b>Specification 2</b>
Quebec*Post	-0.11820 (0.15480)	-0.11265 (0.15410)
Post	-0.06248 (0.06605)	-0.10717 (0.06631)
Quebec	0.03805 (0.10578)	0.03914 (0.10537)
Male	0.02794 (0.07501)	0.01328 (0.07846)
Immigrant	-0.48637*** (0.08010)	-0.48882*** (0.07997)
Activity Limitation	-0.87149*** (0.09944)	-0.86744*** (0.09909)
Common-Law	-0.16036* (0.08875)	-0.18305** (0.08849)
Separated	-0.64695* (0.33849)	-0.65241* (0.33719)
Divorced	-1.25297** (0.45797)	-1.21689** (0.45581)
Time with Household Members		0.00074*** (0.00013)
Time Cooking and Washing Up		-0.00123** (0.00057)
Time in Housekeeping		-0.00093** (0.00038)
Time Spent in Childcare		-0.00040* (0.00023)
Constant	8.26050*** (0.11879)	8.08380*** (0.15885)
r2	0.09059	0.10374
N	2747	2747

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married woman aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.

**Table 4** - Difference in Differences Results for the Effect of the Quebec Parental Insurance Plan Implementation on Overall Life Satisfaction of Mothers

	<b>Specification 1</b>	<b>Specification 2</b>
Quebec*Post	-0.11976 (0.21045)	-0.11692 (0.20928)
Post	-0.04188 (0.09126)	-0.10907 (0.09194)
Quebec	0.02346 (0.13994)	0.03076 (0.13923)
Immigrant	-0.48111*** (0.11076)	-0.47832*** (0.11024)
Activity Limitation	-0.77610*** (0.12614)	-0.76626*** (0.12547)
Common-Law	-0.17024 (0.12487)	-0.17688 (0.12436)
Separated	-1.18252** (0.42540)	-1.20667** (0.42271)
Divorced	-1.42881** (0.53318)	-1.41370** (0.52932)
Time with Household Members		0.00094*** (0.00018)
Time Cooking and Washing Up		-0.00135* (0.00069)
Time in Housekeeping		-0.00088* (0.00045)
Time Spent in Childcare		-0.00043 (0.00029)
Constant	8.06083*** (0.15775)	7.79138*** (0.21899)
r2	0.11440	0.13349
N	1570	1570

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.



**Table 5** - Difference in Differences Results for the Effect of the Quebec Parental Insurance Plan Implementation on Overall Life Satisfaction of Fathers

	<b>Specification 1</b>	<b>Specification 2</b>
Quebec*Post	-0.15445 (0.23029)	-0.13225 (0.23020)
Post	-0.08829 (0.09568)	-0.11352 (0.09587)
Quebec	0.09236 (0.16285)	0.07005 (0.16305)
Immigrant	-0.50243*** (0.11506)	-0.51873*** (0.11631)
Activity Limitation	-0.96867*** (0.16645)	-0.97270*** (0.16662)
Common-Law	-0.15288 (0.12532)	-0.18571 (0.12544)
Separated	1.13400* (0.68245)	1.17149* (0.68372)
Divorced	-5.27009*** (1.51234)	-5.02447*** (1.50957)
Time with Household Members		0.00066*** (0.00019)
Time Cooking and Washing Up		-0.00094 (0.00107)
Time in Housekeeping		-0.00123 (0.00081)
Time Spent in Childcare		-0.00047 (0.00041)
Constant	8.50458*** (0.16040)	8.27975*** (0.20800)
r2	0.12967	0.14112
N	1177	1177

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.

**Table 6** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan Implementation on Overall Life Satisfaction of Parents

	<b>Specification 1</b>	<b>Specification 2</b>
Post	-0.05386 (0.07357)	-0.08991 (0.07368)
Quebec	-0.03321 (0.11098)	-0.03382 (0.11083)
Child Under Four	0.21720** (0.06848)	0.20267** (0.06911)
Quebec*Post	0.28501 (0.18112)	0.30733* (0.18082)
Child Under Four*Post	-0.00958 (0.09853)	-0.00887 (0.09835)
Quebec*Child Under Four	0.06158 (0.15095)	0.05860 (0.15063)
Quebec*Child Under Four*Post	-0.40585* (0.24203)	-0.41526* (0.24162)
Male	-0.02002 (0.05490)	-0.02885 (0.05727)
Immigrant	-0.45869*** (0.06080)	-0.44615*** (0.06089)
Activity Limitation	-0.93776*** (0.07112)	-0.92630*** (0.07099)
Common-Law	-0.13165* (0.07022)	-0.13905** (0.07012)
Separated	-0.67899** (0.23498)	-0.66835** (0.23446)
Divorced	-0.38649 (0.25684)	-0.37744 (0.25628)
Time with Household Members		0.00054*** (0.00010)
Time Cooking and Washing Up		-0.00059 (0.00044)
Time in Housekeeping		-0.00058** (0.00028)
Time Spent in Childcare		-0.00036* (0.00020)
Constant	8.00757*** (0.09794)	7.90639*** (0.12638)
r <sup>2</sup>	0.09292	0.09922
N	5090	5090

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married woman aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.

**Table 7** - Triple Difference Results for the Effect of the QPIP Implementation on Overall Life Satisfaction of Mothers

	<b>Specification 1</b>	<b>Specification 2</b>
Post	-0.07832 (0.09613)	-0.12473 (0.09632)
Quebec	-0.10776 (0.14506)	-0.10165 (0.14488)
Child Under Four	0.11979 (0.09237)	0.08843 (0.09380)
Quebec*Post	0.09911 (0.23665)	0.10703 (0.23606)
Child Under Four*Post	0.04998 (0.13153)	0.04977 (0.13141)
Quebec*Child Under Four	0.12034 (0.19735)	0.12161 (0.19685)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	-0.22196 (0.32022)
Immigrant	-0.39075*** (0.08115)	-0.37194*** (0.08130)
Activity Limitation	-0.81403*** (0.08833)	-0.79810*** (0.08815)
Common-Law	-0.14936 (0.09768)	-0.14721 (0.09748)
Separated	-1.27005*** (0.29938)	-1.28476*** (0.29852)
Divorced	-0.87190** (0.32005)	-0.88352** (0.31921)
Time with Household Members		0.00062*** (0.00013)
Time Cooking and Washing Up		-0.00022 (0.00053)
Time in Housekeeping		-0.00043 (0.00032)
Time Spent in Childcare		-0.00031 (0.00024)
Constant	7.89421*** (0.12855)	7.81515*** (0.16978)
r <sup>2</sup>	0.10342	0.11125
N	3030	3030

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.

**Table 8** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan Implementation on Overall Life Satisfaction of Fathers

	<b>Specification 1</b>	<b>Specification 2</b>
Post	-0.05095 (0.11478)	-0.06967 (0.11499)
Quebec	0.08870 (0.17281)	0.09089 (0.17255)
Child Under Four	0.33919*** (0.10255)	0.34453*** (0.10281)
Quebec*Post	0.65845** (0.28150)	0.68970** (0.28101)
Child Under Four*Post	-0.07780 (0.14923)	-0.08251 (0.14905)
Quebec*Child Under Four	-0.03659 (0.23583)	-0.05308 (0.23526)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-0.75392** (0.36932)
Immigrant	-0.54101*** (0.09214)	-0.54358*** (0.09216)
Activity Limitation	-1.11684*** (0.12266)	-1.11542*** (0.12239)
Common-Law	-0.12703 (0.10031)	-0.14008 (0.10023)
Separated	0.28592 (0.42589)	0.43307 (0.42573)
Divorced	-0.00739 (0.51048)	0.00114 (0.50903)
Time with Household Members		0.00054*** (0.00015)
Time Cooking and Washing Up		-0.00245** (0.00086)
Time in Housekeeping		-0.00140** (0.00064)
Time Spent in Childcare		-0.00044 (0.00035)
Constant	8.13093*** (0.14225)	7.89077*** (0.17817)
r <sup>2</sup>	0.12083	0.13144
N	2060	2060

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time and has a diploma or certificate from post-secondary school, has two children, a household income of \$60,000-79,999, and whose spouse is employed and also has a diploma or certificate from post-secondary school.

**Table 9.1** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Less than HS</b>	<b>HS</b>
Post	-0.07832 (0.09613)	0.82642 (0.56194)	0.04768 (0.30988)
Quebec	-0.10776 (0.14506)	0.22255 (0.62981)	-0.32760 (0.51585)
Child Under Four	0.11979 (0.09237)	-0.27847 (0.47856)	0.24082 (0.27187)
Quebec*Post	0.09911 (0.23665)	-0.08800 (1.05882)	0.21372 (1.00683)
Child Under Four*Post	0.04998 (0.13153)	-0.61501 (0.72141)	0.00895 (0.42437)
Quebec*Child Under Four	0.12034 (0.19735)	-0.19373 (0.93462)	0.70974 (0.66204)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	-1.35183 (1.62426)	-0.09799 (1.35035)
Immigrant	-0.39075*** (0.08115)	-0.28577 (0.44013)	-0.20070 (0.27912)
Activity Limitation	-0.81403*** (0.08833)	-0.95231** (0.45195)	-0.41103 (0.29685)
Common-Law	-0.14936 (0.09768)	0.18366 (0.47704)	-0.13777 (0.28215)
Separated	-1.27005*** (0.29938)	-1.62969 (1.44917)	-1.67001** (0.84460)
Divorced	-0.87190** (0.32005)	-0.90393 (1.43640)	-0.64370 (1.04084)
Constant	7.89421*** (0.12855)	6.44008*** (0.90029)	7.36940*** (0.41767)
r2	0.10342	0.19518	0.13917
N	3030	225	374

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 9.2** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Some Post</b>	<b>Diploma/Cert.</b>
Post	-0.07832 (0.09613)	0.10640 (0.27368)	-0.16719 (0.15971)
Quebec	-0.10776 (0.14506)	0.48076 (0.46807)	-0.04722 (0.22664)
Child Under Four	0.11979 (0.09237)	0.37363 (0.25798)	0.17399 (0.16084)
Quebec*Post	0.09911 (0.23665)	-0.61327 (0.73103)	-0.61428* (0.37053)
Child Under Four*Post	0.04998 (0.13153)	-0.32076 (0.38044)	0.29090 (0.22864)
Quebec*Child Under Four	0.12034 (0.19735)	-0.63656 (0.61177)	0.00729 (0.32372)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	2.11032** (1.04083)	0.35581 (0.50767)
Immigrant	-0.39075*** (0.08115)	-0.30170 (0.23436)	-0.46301** (0.15474)
Activity Limitation	-0.81403*** (0.08833)	-0.92200*** (0.24106)	-0.70634*** (0.14866)
Common-Law	-0.14936 (0.09768)	-0.16885 (0.27599)	-0.04312 (0.16840)
Separated	-1.27005*** (0.29938)	-0.70229 (0.83740)	-0.94591 (0.58015)
Divorced	-0.87190** (0.32005)	-0.86370 (0.90367)	-0.60512 (0.59416)
Constant	7.89421*** (0.12855)	7.64210*** (0.37964)	8.01257*** (0.19489)
r2	0.10342	0.22801	0.16240
N	3030	416	994

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 9.3** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Bachelor's</b>	<b>Above Bachelor's</b>
Post	-0.07832 (0.09613)	-0.25571 (0.18143)	0.10655 (0.37686)
Quebec	-0.10776 (0.14506)	-0.30830 (0.28983)	-0.46474 (0.54740)
Child Under Four	0.11979 (0.09237)	-0.05414 (0.17464)	-0.16658 (0.34425)
Quebec*Post	0.09911 (0.23665)	0.69776 (0.45983)	0.41672 (0.92438)
Child Under Four*Post	0.04998 (0.13153)	-0.03431 (0.23524)	0.67060 (0.48921)
Quebec*Child Under Four	0.12034 (0.19735)	0.16711 (0.37833)	0.00334 (0.75129)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	-0.90077 (0.59208)	-0.03373 (1.21009)
Immigrant	-0.39075*** (0.08115)	-0.45146** (0.14311)	-0.33679 (0.25572)
Activity Limitation	-0.81403*** (0.08833)	-1.04062*** (0.16431)	-0.54446 (0.37971)
Common-Law	-0.14936 (0.09768)	-0.14718 (0.18569)	-0.09702 (0.44607)
Separated	-1.27005*** (0.29938)	-0.61104 (0.87065)	-0.60792 (1.22992)
Divorced	-0.87190** (0.32005)	-0.42704 (0.91334)	-0.38202 (1.32845)
Constant	7.89421*** (0.12855)	8.47397*** (0.23326)	7.77208*** (0.55107)
r2	0.10342	0.17253	0.27469
N	3030	762	213

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 10.1** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Less than HS</b>	<b>HS</b>
Post	-0.05095 (0.11478)	1.42334** (0.51458)	-0.39156 (0.32575)
Quebec	0.08870 (0.17281)	0.50121 (0.60417)	0.64240 (0.54007)
Child Under Four	0.33919*** (0.10255)	1.17108** (0.43550)	0.21187 (0.28702)
Quebec*Post	0.65845** (0.28150)	-1.93653* (1.16059)	0.57555 (0.89122)
Child Under Four*Post	-0.07780 (0.14923)	-1.38386** (0.64609)	0.68696 (0.44251)
Quebec*Child Under Four	-0.03659 (0.23583)	0.20912 (0.88657)	0.22269 (0.94880)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	0.00000 (.)	-0.90376 (1.38462)
Immigrant	-0.54101*** (0.09214)	-1.01203** (0.46367)	-0.60200** (0.30286)
Activity Limitation	-1.11684*** (0.12266)	-1.81792*** (0.49096)	-1.17260** (0.36581)
Common-Law	-0.12703 (0.10031)	-0.43435 (0.37657)	-0.31061 (0.28334)
Separated	0.28592 (0.42589)	1.22306 (1.79575)	-3.74806** (1.23074)
Divorced	-0.00739 (0.51048)	1.03794 (2.12857)	-1.00605 (1.37254)
Constant	8.13093*** (0.14225)	6.95300*** (0.72794)	8.94986*** (0.45348)
r2	0.12083	0.31939	0.32213
N	2060	160	271

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001



**Table 10.2** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Some Post</b>	<b>Diploma/Cert.</b>
Post	-0.05095 (0.11478)	-0.35956 (0.33361)	-0.13203 (0.20149)
Quebec	0.08870 (0.17281)	-1.01151* (0.61029)	-0.02328 (0.29302)
Child Under Four	0.33919*** (0.10255)	0.63294** (0.27149)	0.19982 (0.18435)
Quebec*Post	0.65845** (0.28150)	2.33047** (0.88215)	0.50299 (0.47829)
Child Under Four*Post	-0.07780 (0.14923)	-0.22283 (0.40821)	-0.04913 (0.27050)
Quebec*Child Under Four	-0.03659 (0.23583)	0.55740 (0.74302)	0.00768 (0.39048)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-1.70648 (1.14498)	-0.30563 (0.62055)
Immigrant	-0.54101*** (0.09214)	-1.24149*** (0.27874)	-0.53471** (0.20136)
Activity Limitation	-1.11684*** (0.12266)	-1.34138*** (0.30877)	-0.86910*** (0.20513)
Common-Law	-0.12703 (0.10031)	-0.30416 (0.24563)	-0.21336 (0.18045)
Separated	0.28592 (0.42589)	1.12904 (1.23175)	0.74509 (0.91963)
Divorced	-0.00739 (0.51048)	3.51122** (1.38151)	0.07007 (0.98207)
Constant	8.13093*** (0.14225)	7.64720*** (0.36668)	8.12115*** (0.21573)
r2	0.12083	0.38120	0.16464
N	2060	277	667

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 10.3** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers Based on Highest Level of Education

	<b>Specification 1</b>	<b>Bachelor's</b>	<b>Above Bachelor's</b>
Post	-0.05095 (0.11478)	-0.39460* (0.23189)	0.26264 (0.37591)
Quebec	0.08870 (0.17281)	-0.19075 (0.36285)	0.95577 (0.59318)
Child Under Four	0.33919*** (0.10255)	-0.04177 (0.21572)	0.18044 (0.35731)
Quebec*Post	0.65845** (0.28150)	0.83690 (0.51948)	-0.63328 (1.06484)
Child Under Four*Post	-0.07780 (0.14923)	0.44934 (0.29382)	-0.22896 (0.48539)
Quebec*Child Under Four	-0.03659 (0.23583)	0.54372 (0.49263)	-1.11389 (0.78598)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-1.54600** (0.69572)	1.11851 (1.34198)
Immigrant	-0.54101*** (0.09214)	-0.24748 (0.16321)	-0.21365 (0.23281)
Activity Limitation	-1.11684*** (0.12266)	-0.86833** (0.29654)	0.08872 (0.60262)
Common-Law	-0.12703 (0.10031)	0.29265 (0.21989)	-0.11459 (0.51794)
Separated	0.28592 (0.42589)	1.71751 (1.28941)	2.19461 (1.58819)
Divorced	-0.00739 (0.51048)	0.31350 (1.27672)	0.00000 (.)
Constant	8.13093*** (0.14225)	8.56482*** (0.30232)	8.00124*** (0.55812)
r2	0.12083	0.17029	0.26117
N	2060	467	200

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a household income of \$60,000-79,999, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 11.1** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers by Income Bracket

	<b>Specification 1 Under \$20000 \$20-\$40000</b>		
Post	-0.07832 (0.09613)	0.09824 (0.44424)	-0.21527 (0.27927)
Quebec	-0.10776 (0.14506)	0.15054 (0.57173)	0.04734 (0.37934)
Child Under Four	0.11979 (0.09237)	-0.04964 (0.35440)	0.05257 (0.27129)
Quebec*Post	0.09911 (0.23665)	-1.71126* (0.99737)	0.35320 (0.66397)
Child Under Four*Post	0.04998 (0.13153)	0.31833 (0.60374)	0.08776 (0.38962)
Quebec*Child Under Four	0.12034 (0.19735)	0.30079 (0.83520)	-0.07179 (0.52537)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	1.22085 (1.36673)	-0.18794 (0.96678)
Immigrant	-0.39075*** (0.08115)	-0.54127 (0.35169)	-0.23633 (0.24821)
Activity Limitation	-0.81403*** (0.08833)	-0.74943** (0.34052)	-0.41654 (0.25417)
Common-Law	-0.14936 (0.09768)	-0.14695 (0.62327)	-0.40419 (0.26353)
Separated	-1.27005*** (0.29938)	-1.92238 (1.25116)	-0.90158 (0.87222)
Divorced	-0.87190** (0.32005)	-0.95564 (1.27030)	-0.77953 (0.89168)
Constant	7.89421*** (0.12855)	6.68056*** (0.98453)	8.32043*** (0.36259)
r2	0.10342	0.20714	0.07985
N	3030	282	464

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 11.2** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers by Income Bracket

	<b>Specification 1</b>	<b>\$40-\$80000</b>	<b>\$80-\$100000</b>
Post	-0.07832 (0.09613)	-0.16070 (0.17452)	-0.52268* (0.28530)
Quebec	-0.10776 (0.14506)	-0.33094 (0.24543)	0.06620 (0.54517)
Child Under Four	0.11979 (0.09237)	0.14438 (0.15694)	0.11199 (0.28172)
Quebec*Post	0.09911 (0.23665)	-0.54919 (0.45468)	0.81457 (0.67922)
Child Under Four*Post	0.04998 (0.13153)	0.18935 (0.23803)	0.43265 (0.39112)
Quebec*Child Under Four	0.12034 (0.19735)	0.21106 (0.32753)	-0.45785 (0.69240)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	0.41315 (0.57038)	-0.06827 (0.96746)
Immigrant	-0.39075*** (0.08115)	-0.22727 (0.15142)	-0.60553** (0.26837)
Activity Limitation	-0.81403*** (0.08833)	-1.24182*** (0.15198)	-0.71652** (0.25137)
Common-Law	-0.14936 (0.09768)	-0.08433 (0.16463)	-0.10362 (0.29131)
Separated	-1.27005*** (0.29938)	-1.63437* (0.93060)	-1.34471 (1.82885)
Divorced	-0.87190** (0.32005)	-1.52338 (0.96270)	0.11881 (1.92388)
Constant	7.89421*** (0.12855)	7.78708*** (0.18274)	7.74003*** (0.30024)
r2	0.10342	0.14804	0.19025
N	3030	900	330

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 11.3** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Mothers by Income Bracket

	<b>Specification 1</b>	<b>Over \$100000</b>	<b>Unknown Income</b>
Post	-0.07832 (0.09613)	0.14690 (0.18926)	0.11442 (0.31495)
Quebec	-0.10776 (0.14506)	-0.07259 (0.28601)	-0.05065 (0.48303)
Child Under Four	0.11979 (0.09237)	0.36798* (0.19503)	0.05723 (0.28092)
Quebec*Post	0.09911 (0.23665)	0.14086 (0.46997)	1.00592 (0.77154)
Child Under Four*Post	0.04998 (0.13153)	-0.36173 (0.26126)	-0.01236 (0.41853)
Quebec*Child Under Four	0.12034 (0.19735)	0.33164 (0.44148)	0.15064 (0.59709)
Quebec*Child Under Four*Post	-0.22682 (0.32074)	-0.33738 (0.66285)	-2.48955** (1.08545)
Immigrant	-0.39075*** (0.08115)	-0.27562 (0.16887)	-0.60807** (0.22565)
Activity Limitation	-0.81403*** (0.08833)	-0.65515** (0.20068)	-1.10513*** (0.31376)
Common-Law	-0.14936 (0.09768)	-0.25063 (0.19878)	0.06354 (0.34063)
Separated	-1.27005*** (0.29938)	-0.98006 (0.83095)	-1.24919** (0.56939)
Divorced	-0.87190** (0.32005)	-0.07910 (1.15462)	-0.96060 (0.66571)
Constant	7.89421*** (0.12855)	8.07511*** (0.22425)	8.01055*** (0.38097)
r2	0.10342	0.11751	0.13062
N	3030	512	420

Note: OLS results where the base case is a Canadian-born, married mother aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 12.1** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers by Income Bracket

	<b>Specification 1</b>	<b>\$20-\$40000</b>
Post	-0.05095 (0.11478)	-0.13248 (0.45918)
Quebec	0.08870 (0.17281)	-0.49483 (0.60612)
Child Under Four	0.33919*** (0.10255)	0.52769 (0.36092)
Quebec*Post	0.65845** (0.28150)	0.44981 (1.46070)
Child Under Four*Post	-0.07780 (0.14923)	0.40729 (0.57459)
Quebec*Child Under Four	-0.03659 (0.23583)	0.77828 (0.79478)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-0.77222 (1.67021)
Immigrant	-0.54101*** (0.09214)	-1.11542*** (0.32040)
Activity Limitation	-1.11684*** (0.12266)	-1.50775*** (0.35180)
Common-Law	-0.12703 (0.10031)	0.11130 (0.33444)
Separated	0.28592 (0.42589)	0.61788 (1.11237)
Divorced	-0.00739 (0.51048)	-0.53351 (1.17647)
Constant	8.13093*** (0.14225)	7.45082*** (0.48938)
r2	0.12083	0.32758
N	2060	213

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 12.2** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers by Income Bracket

	<b>Specification 1</b>	<b>\$40-\$80000</b>	<b>\$80-\$100000</b>
Post	-0.05095 (0.11478)	0.11277 (0.20552)	-0.08965 (0.28572)
Quebec	0.08870 (0.17281)	0.33413 (0.28003)	-0.12608 (0.42082)
Child Under Four	0.33919*** (0.10255)	0.39932** (0.17066)	0.20658 (0.25095)
Quebec*Post	0.65845** (0.28150)	-0.16777 (0.52163)	0.46173 (0.67243)
Child Under Four*Post	-0.07780 (0.14923)	-0.28901 (0.27163)	-0.24295 (0.37051)
Quebec*Child Under Four	-0.03659 (0.23583)	-0.02536 (0.37850)	0.05607 (0.56261)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-0.29178 (0.69326)	-1.41775 (0.92125)
Immigrant	-0.54101*** (0.09214)	-0.47645** (0.17050)	-0.82660** (0.25812)
Activity Limitation	-1.11684*** (0.12266)	-1.18171*** (0.20060)	-0.70155* (0.37810)
Common-Law	-0.12703 (0.10031)	-0.13761 (0.17330)	-0.58797** (0.28834)
Separated	0.28592 (0.42589)	1.56244 (1.54516)	-0.15607 (1.67623)
Divorced	-0.00739 (0.51048)	2.40755 (1.61464)	-2.99912 (1.94584)
Constant	8.13093*** (0.14225)	7.75967*** (0.20506)	8.44079*** (0.29541)
r2	0.12083	0.14619	0.23348
N	2060	658	292

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001

**Table 12.3** - Triple Difference Results for the Effect of the Quebec Parental Insurance Plan on the Overall Life Satisfaction of Fathers by Income Bracket

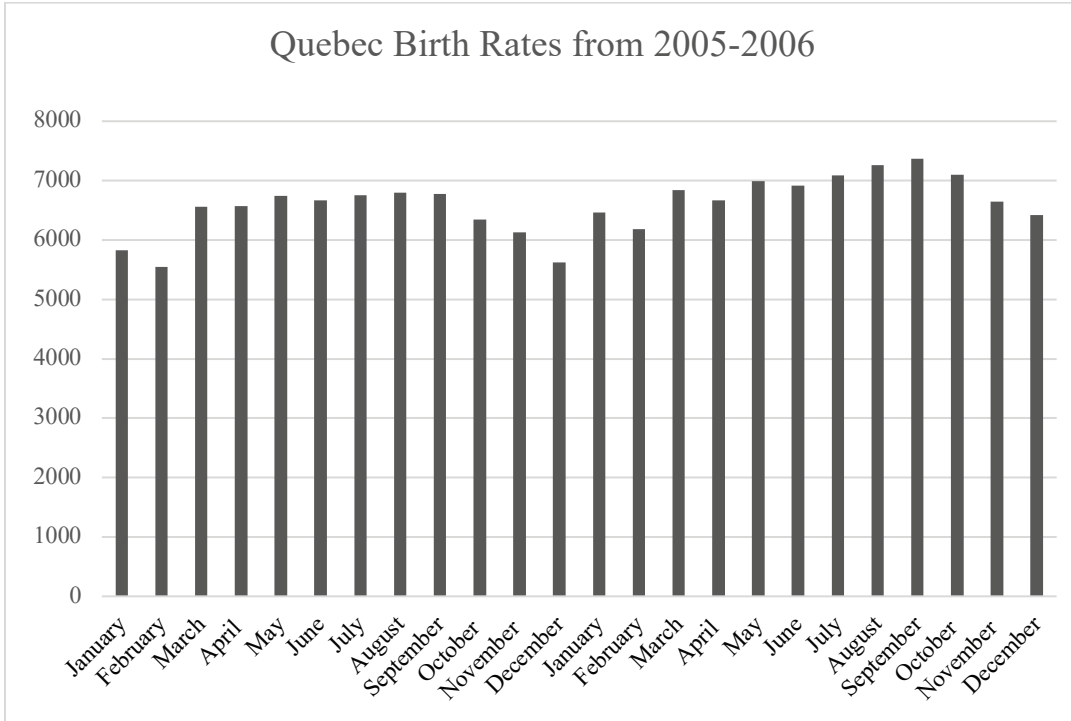
	<b>Specification 1</b>	<b>Over \$100000</b>	<b>Unknown Income</b>
Post	-0.05095 (0.11478)	0.09119 (0.25886)	-0.71476** (0.34327)
Quebec	0.08870 (0.17281)	-0.04005 (0.33624)	0.37165 (0.78760)
Child Under Four	0.33919*** (0.10255)	0.08209 (0.22156)	0.44564 (0.30969)
Quebec*Post	0.65845** (0.28150)	0.79400 (0.53623)	1.73122 (1.04946)
Child Under Four*Post	-0.07780 (0.14923)	0.00682 (0.32688)	0.03510 (0.48333)
Quebec*Child Under Four	-0.03659 (0.23583)	-0.07303 (0.52033)	-1.01338 (0.94288)
Quebec*Child Under Four*Post	-0.75270** (0.37024)	-0.84239 (0.76764)	-0.66753 (1.26929)
Immigrant	-0.54101*** (0.09214)	-0.55015** (0.19764)	0.13216 (0.27377)
Activity Limitation	-1.11684*** (0.12266)	-0.56217* (0.29576)	-1.10370** (0.40902)
Common-Law	-0.12703 (0.10031)	-0.38411* (0.21317)	0.00199 (0.31995)
Separated	0.28592 (0.42589)	3.11617* (1.61869)	0.62698 (0.98986)
Divorced	-0.00739 (0.51048)	-2.62183** (1.26015)	4.12538** (1.33004)
Constant	8.13093*** (0.14225)	8.24246*** (0.27040)	8.06540*** (0.41373)
r2	0.12083	0.16105	0.19938
N	2060	444	254

Note: OLS results where the base case is a Canadian-born, married father aged 25-34, who works full-time, has two children, has a diploma or certificate from post-secondary school, and whose spouse is employed and has a diploma or certificate from post-secondary school.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.001



**APPENDIX C FIGURES**



**Figure 1:** Number of Births per Month in Quebec from January 2005 to January 2006 (Live Births by Month, 2019).