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The Use and Sharing of Parental Benefits in Canada: Two Policy Changes

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ABSTRACT

This paper uses new administrative data to examine how two recent policies affected the use and sharing of paid parental benefits in Canada. The first policy change (2001) was federal, and widened eligibility criteria and increased the weeks of benefits available to either parent from 10 to 35. The second (2006) affected only the province of Quebec, and widened eligibility criteria, increased the wage replacement rate, and introduced five weeks of designated paternity benefits. Findings show that the 2001 policy extension increased the use of benefits by 4.2 percentage points and the increase was twice as large for low and middle-income families as high-income families. The 2006 policy caused an even greater increase in the use of benefits. From this policy change, increases in take-up were greatest among low-income families and smallest among high-income families. The two policies also led to different patterns of sharing parental benefits by family income.

Keywords: Parental leave; policy; work-family issues; family policy; Canada

BACKGROUND

Extended maternity or parental leave policies have been advocated for and implemented in many countries. These policies are designed to help parents balance work and family life by allowing them to stay home with their infants with legal job protection and financial support (Baird & O'Brien, 2015). Paid maternity and parental leave have been shown to have large effects on labor force attachment among new mothers (Berger & Waldfogel, 2004; Rossin-Slater et al., 2013), as well as a host of other economic benefits, such as improving employee morale, and reducing employer costs by improving worker retention (Gault et al., 2014). There are also important benefits of maternity and parental leave for the family. Child health is improved through increased rates and duration of breastfeeding (Berger, Hill & Waldfogel, 2009; Hawkins, et al., 2007; Mirkovic et al., 2016; Visness & Kennedy, 1997), improved vaccination rates and more frequent well-baby checkups (Berger, Hill & Waldfogel, 2005; Heymann, Raub & Earle, 2011). Leave for mothers can help prevent maternal depression and stress, which is important for the quality of care she provides to her infant (Brooks-Gunn et al., 2011; Chatterji & Markowitz, 2012), and leave for fathers can promote their involvement in childcare and relationships with children (Huerta et al., 2013; Klerman, Daley & Pozniak, 2013; Haas & Hwang, 2008).

At least three theoretical frameworks can help to explain the empirical findings regarding the effects of parental benefits on work patterns, maternal and child well-being, and father involvement. First, attachment theory posits that infancy is a critical period for bonding with caregivers (Ainsworth, 1979). Parents' ability to spend time with a new baby during this period of rapid development in the brain and nervous system (Shonkoff & Philips, 2000) sets the stage for the relationship between parent and child, and can help explain higher rates of breastfeeding, lower maternal depression and stress, and more involvement in caregiving among fathers.

Second, family systems theory and ecological systems theory view the family as being subject to the influences of the outside world. Parents' job schedules and work stress affect family relationships and interactions (Bronfenbrenner & Morris, 2006; Repetti, Wang & Saxbe, 2009). Within these frameworks, parental leave can decrease new parents' stress and allow them to focus on building family relationships. Third, the work-family conflict framework would also predict that paid time off from work through parental leave would decrease conflict between the two spheres which would increase the probability of mothers going back to work, and improve parental and child outcomes (Glass & Estes, 1997).

Although some policy changes have been found to increase the use of parental leave, not all policies have a large, or even any, effect (Ekberg et al., 2013; Han & Waldfogel, 2003; Ray, Gornick & Schmitt, 2010). Existing research suggests that the behavioural responses to paid parental leave policies are complex and often depend on the country's social and policy context (e.g. type of policy, level of benefits, conditions of eligibility, norms, stigma and sanctions associated with the receipt of benefits) and family circumstances (e.g. family income, relative income in the household) (Gauthier, 2007; Hegewisch & Gornick, 2011; Ray, Gornick & Schmitt, 2010). Because the effects of policies can vary so much by family circumstance and thus may exacerbate or ameliorate existing social inequalities, it is important to examine the heterogeneous effects across subpopulations in addition to understanding the overall effects of parental benefits legislation. Research on parental benefits policies in Europe has found varied effects by sex and family income because policies create different sets of incentives around the gendered division of paid and unpaid work in families with different resources (Tunberger & Sigle-Rushton, 2011). In Canada, descriptive statistics show that high- and low-income families use parental benefits differently (McKay, Mathieu & Doucet, 2016), but no existing empirical

research has examined this, nor how policy changes have increased or decreased use of paid time off with a child.

In this paper, we examine how two recent policy extensions affected the use and sharing of parental benefits within families with newborns in Canada. The first policy change (2001) was federal, affecting all of Canada, and the second (2006) was provincial, affecting only Quebec. Our analysis makes two main contributions. First, our robust study design examines the effects of the policy changes, net of time trends and shifts in the distributions of other population characteristics. Second, our use of new administrative data allows us to examine, for the first time, the heterogeneous effects of these two policies by family income.

Factors Associated with Use of Parental Leave

Two sets of factors are behind increased leave-taking of new parents: individual factors and policies. Most studies find that the likelihood of taking parental leave among mothers and fathers increases with their education and income level (Geisler & Kreyenfeld, 2010; Han et al., 2009; Reich, 2011), with fathers in particular being less likely to take leave if it subjects the family to economic constraints (Han et al., 2009; Reich, 2011). Relative earnings in the household also seems to matter; fathers are more likely to take leave if his partner's income is only slightly lower than his own (Lappegard, 2012). Some studies have found that married fathers are more likely to take parental leave than cohabiting men in Sweden (Sundstrom & Duvander, 2002), Germany after 2007 (Reich, 2011) and Norway (Naz, 2007), but less likely in Germany before 2007 (Geisler & Kreyenfeld, 2009). Married women may also be more likely to use parental benefits than cohabiting or single women because they may be more likely to have access to benefits, and also better able to finance unpaid or lower earnings (Han et al., 2009).

Sundstrom and Duvander (2002) find that father's leave taking is higher with a first child, but other studies find that father's use of parental leave is higher in families with more children (Naz, 2007; Geisler & Kreyenfeld, 2009).

The ways in which policies are designed also influence patterns of leave-taking among new mothers and fathers. Two of the most important factors that affect leave-taking among new parents are the income replacement rate and specified leave time for fathers (Duvander & Johansoon 2012; Gislason 2007). Both of these policy variables are aimed to increase leave-taking by moderating work-family conflict and increasing attachment and bonding during key periods of development. For example, Belgium, Iceland, Luxembourg, Norway and Sweden all offer non-transferable leave to both mothers and fathers. Take-up of leave for fathers is highest in countries with non-transferable leave programs that also offer high wage replacement rates (e.g. Sweden, Norway, and Iceland). Unpaid leave programs like the Family Medical Leave Act (FMLA) in the US had no effect on leave-taking among men and only small effects for women (Han & Waldfogel, 2003). Parental leave take-up is much lower for fathers and mothers in countries where earnings replacement levels are lower (Moss & O'Brien, 2006). Widening eligibility criteria or not tying eligibility to labor market participation are associated with higher rates of leave-taking (Koslowski et al., 2016). Longer periods of available parental leave are also associated with higher take-up of fathers (Koslowski et al., 2016). For example, mothers might be likely to take all the available leave if only a short period is available to share because of their need to recover from the birth or desire to keep breastfeeding. If a longer period is available, then fathers might be more likely to take some weeks of leave after the mother has recovered.

Canada's Maternity/Parental Benefits Program and the 2001 Policy Change

Canada's paid maternity benefits policy was established in 1971. Note that these policies and our analysis refer to *paid* job-protected leave. The length of unpaid job-protected leave varies by province, as is described in Baker and Milligan (2008). The first policy to offer *paid* job-protected maternity leave for women established eligible female workers access to a basic benefit of 55% of their average earnings up to a maximum of $413 per week for a period of 15 weeks around the birth of a child. In 1990, a parental benefit was added which allowed eligible parents to have an additional 10 weeks of parental benefits with the birth, or, now, adoption of a child. This paid leave could be taken by one parent or split between both parents. Both the maternity and parental benefits have to be used within 52 weeks of a child's arrival (Marshall, 1999). When either parent used maternity of parental benefits, they each had a two-week waiting period after leaving work but before starting to receive paid benefits.

At the end of the year 2000, parental benefits were extended in three main ways (HRSDC 2005). First, and most importantly, the period of parental benefits available to either parent individually or to share increased from 10 to 35 weeks. When combined with the 15 weeks of maternity benefits (for mother only), a total of 50 weeks of paid time off were now available to use by the child's first birthday. Second, eligibility criteria decreased from 700 to 600 hours worked in the past 52 weeks. Third, the second 2-week waiting period for benefits was eliminated, which was designed the reduce the cost of fathers using benefits (Phipps, 2006). The earnings replacement rate remained the same, at 55%.

Existing studies of the effects of the 2001 policy change are limited in three main respects. First, the administrative and survey data analyzed by the Canadian government are from the short period surrounding the program change (2000-2002), and the surveys used have high non-response rates (HRSDC, 2005; Marshall, 2003; Perusse, 2003). Second, existing

studies do not have a clear estimate of the effect of the policy change because there were also large changes in other population characteristics during this time, such as the growing proportion of dual earner households and changes in the age distribution of new parents. Last, we know little about how parental benefits are being used or shared differently across the spectrum of family income and how the policy change affected these groups differently. Feminist scholars have argued that Canada's parental benefits program exacerbates inequalities by gender and social class (Evans, 2007; McKay, Mathieu & Doucet, 2016). They note that the most disadvantaged are less likely to be eligible for parental benefits, often because they are unemployed, self-employed, or do not work enough hours to qualify. Moreover, the earnings replacement rate of 55% in Canada may make it difficult for low waged women and men to remain out of the workforce (Evans, 2007). The ways in which parental benefits policies affect low and high-income families differently may be leading to "parental-leave-rich" and "parental-leave poor" households, where some privileged infants have high access to maternal, paternal and financial resources, while less fortunate infants begin life with much less emotional and economic investment (McKay, Mathieu & Doucet, 2016). No empirical work has examined if these inequalities actually exist and whether the 2001 policy exacerbated or ameliorated inequalities by family income.

The Quebec Parental Insurance Plan (QPIP)

The province of Quebec has generous family and childcare policies, making it an anomaly in North America and more similar to Europe (Beaujot, Du & Ravanera, 2013; Tremblay 2010). These policies are thought to be the result of the strong mobilization of unions, women's and family groups, and two provincial government bodies, the Conseil du statut de la femme (Status of women council) and the Conseil de la famille et de l'enfance (Council on

family and children). Finally, Quebec's longstanding interest in easing work-family conflict and promoting gender equality in part led to the development of the QPIP (Tremblay, 2010).

As of January 1, 2006, Quebec instituted its own Parental Insurance Plan (QPIP) for administering paid benefits to new birth or adoptive parents in Quebec. The parental benefits plan described above remained in effect in all other provinces. The 2006 policy change in Quebec aimed to increase fathers' use of benefits and to break down gender stereotypes and promote gender equality by changing the expectation that women in the labor force would be doing more parenting than men.

Quebec's policy made four important changes. First, it increased benefit rates from 55% of average earnings to a max of $413 per week to a rate between 55% and 75% depending on which of the two plans is chosen, up to maximum earnings of $767 per week (Marshall, 2008). Second, it instituted a new five-week non-transferable benefits period for fathers. Third, it increased eligibility for parental benefits by including self-employed people and removing the work hours requirement and replacing it with requiring at least $2,000 of earnings in the last year. Last, it eliminated the 2-week waiting period for benefits.

Despite the importance of the QPIP, there has been little research examining its effects on leave-taking (see Tremblay 2016 for some descriptive statistics) and no studies examining different effects by family income. Marshall (2008) notes with descriptive statistics that "without doubt the QPIP had a profound influence on father's use of paid leave in Quebec. Of those eligible for the program, 56% claimed benefits in 2006, up from 32% in 2005" (2008; pg 8). Recent qualitative work notes that QPIP enabled fathers to take more leave because of the higher wage compensation and the fact that the weeks of leave reserved for fathers helped to legitimize their leave with employers (McKay & Doucet, 2010). The only research that hypothesizes about

different effects of this policy by household income is McKay, Mathieu, and Doucet (2016), where they examine the proportion of mothers who received maternity and/or parental benefits by household income in 2013 and find less stratification in use of leave in Quebec compared to the rest of Canada. However, this analysis could not explicitly test the effects of the QPIP policy.

The Current Study

In this paper we examine how the use and sharing of parental benefits in Canada has changed over time (1998-2012) and in response to the two major policy extensions described above. First, we address how the 2001 parental benefits extension affected the use of benefits overall and whether the policy had different effects by family income. Second, we examine how the introduction of the Quebec Parental Insurance Plan in 2006 led to different patterns of using benefits overall and by family income. Third, we examine how these two policy changes affected patterns of sharing parental benefits within families.

Our hypotheses are based on theoretical and empirical findings from international research. First, we hypothesize that both policies increased leave-taking and that they had the greatest effect in increasing use of parental benefits among low-income families. This is because both policies increased eligibility at the low end of the income distribution, but in different ways and more substantially in Quebec's reform. Reduced income from going on leave may be an important constraint among low-income families (Rossin-Slater, Ruhm & Waldfogel, 2011) and the policies aimed to reduce financial strain and ease work-family conflict.

Second, we hypothesize that because both reforms increased the length of potential benefits, we will see increased use of benefits for fathers from both reforms. The 2001 policy increased the length of parental benefits that could be shared from 10 to 35 weeks and the 2006

policy offered designated weeks of paternity leave. Longer leaves allow fathers to have time with newborns, after allowing for maternal healing and maternal-infant boding just after birth.

Third, we hypothesize that there will be an income gradient in sharing of leave for two different reasons. The wealthiest families may be less constrained in sharing leave, since they will not be as constrained by the loss of earnings, and they will be more likely to have employers that supplement their parental benefits (although we cannot measure that here). Many Canadian employers supplement the standard parental leave benefit with an additional 'top-up'. This is most common in government, universities, and some large employers, and it is rare in occupations with low wages. A second reason for a negative income gradient in leave-sharing may be that low-income fathers may work in occupations with low levels of acceptance for taking parental leave. Therefore policies that encourage leave-sharing may have larger take-up in more accepting, and higher income, occupational settings.

METHOD

To examine the use of parental leave in Canada, we use administrative data merged specifically for the purpose of this study. First, we use a database constructed of linked longitudinal tax files, the T1 Family File (T1FF), which includes 96% of Canada's population. It is constructed from all individuals who file taxes in a given year or who received the Canada Child Tax Benefit (CCTB) in that year, their spouses, and children (Statistics Canada, 2016). Tax files provide information on family income, age and marital status of parents, and to identify parents with children born in the calendar year. The second source of administrative data is the T4-ROE-LEAP linkage from Statistics Canada, which provides job-level information for people who work or who receive Employment Insurance benefits in each tax year. We use information about benefits received in the year of a child's birth, the year before, or after since benefits can

be drawn just before or up to one year after a birth. More information about the data can be found here (Hou, Margolis & Haan, 2017).

These administrative data offer two important benefits for our analysis. First, they provide a very large sample of births before and after the two important policy changes as well as important parental and family characteristics. Other data sources that have been used to study parental benefits in Canada (Employment Insurance Coverage Survey, General Social Survey on Family, National Longitudinal Survey of Children and Youth, and the Survey of Young Canadians) do not give enough statistical power to study heterogeneous effects across subgroups or may not have important partner characteristics. Second, these administrative data have high population coverage rates (Hou, Margolis & Haan, 2017), while surveys mentioned above often suffer from low response rates (e.g. EICS) or attrition bias (NLSCY).

Our sample for the study period 1998-2012 includes 3,084,838 family-years with a newborn child. At the time of this study, the data linkage file (T4-ROE-Leap) was available for the years from 1997 to 2013. We exclude births in 1997 because we cannot observe pre-birth characteristics such as income or number of children, and also because we cannot observe maternity leave that would start very late in 1996 for births that occurred early in 1997. We exclude births that occurred in 2013 because we cannot observe parental benefits that could be used in 2014 for births that occurred late in 2013 (Hou, Margolis & Haan, 2017). We excluded about 520,000 family-years with single-parents or same-sex parents because one main objective of this paper is to examine trends in how mothers and fathers split parental leave. Our descriptive analysis includes the whole sample (1998-2012) and our multivariate analyses focus on the periods surrounding each policy change; 1998-2003 for the first reform and 2003-2008 for the second reform. The results of the study are robust to this analytic decision.

We code a parent as using parental benefits if they had a Record of Employment (ROE) for parental leave in the year before the birth, year of the birth or year after the birth, or received Employment Insurance income in the birth year. In additional analyses, we estimated our analysis coding parental leave based only on receiving a ROE for parental leave and found similar trends (Hou, Margolis & Haan, 2017). We also examine the age of mother, age of father, province of residence, marital status, family income, number of previous young children (ages 16 or younger), and relative earnings as control variables. Ages of mothers and fathers are coded as 19 or less, 20-24, 25-29, 30-34, 35-39, 40-44, and 45 and above to allow for non-linear relationships in age. Marital status of parents notes whether parents are married or common law (lone parent families are excluded from this analysis). The number of young children (16 or younger) in the family in the year before the child is born is coded as none, 1, 2, 3, or 4 or more. Family income is measured in the year preceding the birth shown in 2013 constant Canadian dollars, and grouped into six intervals to allow for non-linear income effects: less than $30,000, $30,000-$59,999, $60,000-89,999, $90,000-119,999, $120,000-149,999, and $150,000 or greater. For the analysis of heterogeneous effects by family income, we collapse these categories into three: less than $30,000, $30,000-89,000, and $90,000 or more. Relative earnings in the family in the year before the birth capture whether only the male or female worked, both work and the male earns >60% of family income, they both work and the woman earns >60% of family income, they both earn similar shares (each 40-60%), or neither worked.

Analytic Plan

We first describe the percentage of families with newborns using maternity or parental benefits by parents' and family characteristics (Table 1). Next, we examine how the percentage of families using maternity/parental benefits and how mothers, fathers, and parents' benefits

sharing has changed over the study period (Table 2). To examine how take-up of parental benefits changed as a result of the 2001 policy change and how changes in take-up vary by family income, we estimate a series of linear probability models (Table 3). First, we examine whether there is a significant difference in the probability of a parent using parental benefits in the period just after (2001-2003) compared with just before (1998-2000) the 2001 policy, net of a linear increase in the use of parental benefits over time. Equation (1) below shows *y*, our dependent variable equal to one if at least one parent in the i^{th} family takes parental leave in year t, and zero otherwise. In equation (1) the function in parentheses is a dummy variable taking the value 1 after the 2001 reform and zero before. The regression coefficient δ therefore captures the effect of the 2001 reform, variable *t* captures a linear time trend, and *u* is an error term. We examine how large the increase in use of parental benefits is, including a wide set of control variables in order to control for changes in the distribution of these factors over the time period, shown in equation (2) with $\mathbf{x}_{it}$. Last, we examine whether the policy had heterogeneous effects by family income, estimating model (2) for each household income group.

$$(1)\quad y_{it} = a + \delta \cdot 1(t \geq 2001) + \gamma t + u_{it}$$

$$(2)\quad y_{it} = a + \delta \cdot 1(t \geq 2001) + \gamma t + \mathbf{b}\mathbf{x}_{it} + u_{it}$$

Our second research question addresses how large the take-up of parental benefits was from the 2006 extension of benefits in Quebec, and whether take-up varies by family income (Table 4). To answer this question, we estimate a series of difference-in-difference linear probability models. We examine whether the change in take-up was larger in Quebec compared to the rest of Canada in the year of the policy change compared to other years. We do this by comparing the changes in Quebec across the reform with changes in the other provinces as controls. Equation (3) includes a dummy variable for 2006 onward compared to before 2006,

which captures any potential change in 2006 common to all provinces including Quebec. Second, a dummy variable for Quebec captures any pre-2006 differences between this province and other provinces. Third, the difference-in-difference interaction is an interaction between the 2006 dummy and the Quebec dummy. This variable captures the causal effect of the 2006 reform in Quebec. Last, we include a linear increase in the use of parental benefits, *t*.

$$(3)\quad y_{it} = a + \delta \cdot 1(t \geq 2006) + \theta \cdot 1(\text{province} = \text{Quebec}) + \pi \cdot 1(t \geq 2006) \cdot 1(\text{province} = \text{Quebec}) + \gamma t + u_{it}$$

Model 4 examines how large the increase in use of parental benefits is, including control variables, $\mathbf{x}_{it}$, to account for potential changes in the composition of observed background characteristics that may be correlated with both time and province and hence may confound our estimate of the effect of the 2006 reform in Quebec. Models 4a, 4b and 4c examine whether there were heterogeneous effects by family income of the policy change on the use of parental benefits, estimating Equation 4 for low-, middle-, and high-income families respectively

$$(4)\quad y_{it} = a + \delta \cdot 1(t \geq 2006) + \theta \cdot 1(\text{province} = \text{Quebec}) + \pi \cdot 1(t \geq 2006) \cdot 1(\text{province} = \text{Quebec}) + \gamma t + \mathbf{bx}_{it} + v_{it}$$

Last, we examine what factors predict mother's use only, father's use only, or the sharing of parental benefits, relative to no parent using benefits. We estimate two sets of multinomial logit models which examine how the two policies affected patterns of use of parental leave within families. The first set examines how the 2001 policy change shifted the sharing of benefits in all of Canada, using data from 1998-2003. The second set examines how the 2006 policy changed the use of parental benefits in Quebec, using data from 2003-2008. Both models include a linear time trend, family income, age of mother, age of father, marital status of couple, and relative earnings. We test whether there were heterogeneous effects of these policies by family income for how parental benefits are used within families by running these multinomial logit models by family income and comparing coefficients across models. These results are shown in Tables A1-A4 and we graph marginal effects for the key coefficients in Figures 1-2.

For our first two research questions we chose to present estimates from linear probability models. These models are easy to interpret, since the estimated regression coefficient is the marginal effect of each regression variable, whereas in non-linear probability models one has to calculate marginal effects from the non-linear probability coefficients. A second reason is that linear probability models are also useful for comparing models across same-sample nested models, and this is more cumbersome for non-linear probability because of scaling effects (Karlson et al., 2012; Breen et al., 2013). Third, non-linear probability models such as logits or probits present problems when comparing groups (Breen et al., 2014). However since it is contested which models are preferable (Kuha & Mills, 2017), we also estimated Tables 3 and 4 with probit models and found very similar patterns of results.

RESULTS

Table 1 presents the percent of families with a newborn where at least one parent uses maternity or parental benefits by family characteristics. Overall, almost three in four (74%) two-parent families are taking advantage of Canada's maternity and parental leave policies over our study period (1998-2012). The use of parental benefits varies greatly by sociodemographic characteristics. For example, use of parental benefits is lowest among very young parents, 35% among teen mothers and 39% among teen fathers. Mothers and fathers ages 25-29 and 30-34 have the highest take-up rates of leave (77-78%). There is also a lot of variation in benefits use across Canadian provinces and territories, with the highest rates in Prince Edward Island (88%), New Brunswick (83%) and Quebec (82%) and the lowest rates in the Territories (57%). Take-up of parental benefits is more common in common-law unions (78%) than married unions (72%). Take-up is also much less prevalent among families with low-incomes in the year before the birth. For example, only 43% of families making less than $30,000 used parental benefits, 73%

of families making between $30,000 and $59,999 and rates above 83% in families making more than $60,000 per year. Use of parental benefits is also most common in families where both parents work, with leave-taking at 80% or above in these families, and lower in families where only one parent works or neither works. These patterns are in part due to eligibility criteria. For example, the low take-up for young parents, low income parents, and households where both parents do not work are likely due to low labor force participation among these groups.

There has been a large increase over time in the percentage of families with a newborn using parental benefits and families where father and mother are sharing these benefits. Table 2 presents the percent of families with a newborn in which any parent took leave (Total), and then breaks down whether only the mother, only the father, or both parents used benefits. Over the period (1998-2012), the percentage of families with newborn taking parental leave increased rom 64% to 78%. This increase in the percentage of newborn families taking leave was not driven by increases in the mother only taking leave, which increased marginally from 46.3% to 50.5%, or the father only taking leave, which decreased from 7.4% in 1998 to 5.5% in 2012. Rather, the increase is due to an increase in both mother *and* father taking leave. This group more than doubled, from 10.3% of newborn families in 1998 to 22.3% in 2012. In Table 2, we can see large changes in the pattern of sharing parental benefits when the two significant policy changes in Canada went into effect (2001 and 2006). The proportion of families in which any parent took leave increased from 66.5% in 2000 to 72.45% in 2001 and this expansion was due to an increase in families where both parents took leave, from 9.9% in 2000 to 14.7% in 2001. When the second policy expanded parental benefits in Quebec in 2006, proportion of newborn families where both parents used leave increased from 15.0% in 2005 to 20.8% in 2006.

The first set of results addresses the effects of the 2001 extension of parental benefits on leave-taking overall and by family income. Results from linear probability models in Table 3 show the associated increase or decrease in the probability of at least one parent using parental benefits. Model 1 shows that the policy change (2001-2003 vs. 1998-2000) accounts for an increase of 4.6 in the probability of using parental benefits, net of the linear time trend which accounts for about a 1.1 increase in the probability of using benefits. It is important to note the large magnitude of these results, especially given that statistical significance comes partly from the large samples (Busby et al., 2008).

Model 2 additionally controls for a variety of other factors that are changing in composition over time and which might affect the use of benefits (i.e. labor force participation and age composition of parents). Including these factors decreases the size of the change in use of benefits over the policy change a small amount, from 4.6 to 4.3. Thus, the extension of benefits had an important (magnitude and significance) effect on the population's use of this benefit for new parents. Models 2a, 2b and 2c examine how the 2001 extension may have had heterogeneous effects on low, middle and high-income families. Comparing the coefficient for 2001-2003 vs. 1998-2000, we can see that the policy extension increased use by almost twice as much for low and middle-income families compared with high-income families. The increase associated with the policy change was 5.0 percentage points for low-income families, 4.8 for middle-income families, and 2.1 in high-income families (significant at $p<.001$).

Next, we examine the effects of the 2006 extension of benefits in Quebec. Table 4 presents results from our linear probability models estimating a difference-in-difference to see how the use of benefits changed in 2006 in Quebec compared to the rest of the country where there was no policy change. The first model shows that net of a small increase over time, and

generally higher use of benefits in Quebec compared to the rest of Canada, Quebec's policy change in 2006 led to an increase of 6.4 percentage points in the likelihood of using parental benefits in Quebec greater than what we observed in the rest of Canada. This estimate decreases slightly (to 6.3 percentage points), when accounting for a variety of control variables in Model 4. Thus, net of changes in sociodemographic and family characteristics, the policy change in Quebec is responsible for a 6.3 percentage point increase in the use of parental benefits, relative to other provinces that had no policy change then.

Models 4a, 4b and 4c estimate whether this policy change in Quebec had heterogeneous effects by family income. Examining the coefficient for the difference-in-difference in these models, we see that the increases in the use of parental benefits due to the 2006 policy in Quebec were greatest among low-income families and smallest among high-income families. The policy had an effect of a 11.0 percentage point increase among low-income families, 6.8 percentage points in middle-income families (the 4.2 percentage points difference from the changes among low-income family is significant at $p < 0.001$) and 5.3 percentage points in high-income families (the difference from the low-income is significant at $p < 0.001$).

How did these two policy changes affect patterns of use of parental leave within families? The full results from our multinomial logit models predicting who takes leave (mother only, father only, both parents, relative to neither parent) are shown in Appendix Tables A1-A4. Key results from these models, shown with marginal effects appear in Figures 1-2.

Figure 1 presents marginal effects for how the 2001 policy extension changed who used parental benefits in Canada. Overall, for the whole group, the policy extension resulted in a 4.7 percent point increase in both parents taking leave, and a very small (one percent) increase in mother only using benefits. Figure 1 shows that low, middle and high-income families reacted

differently to the policy. For low-income families, the 2001 policy change resulted in an increase in mothers only using benefits of 2.6 percentage points and a small (1.6) increase in both parents using benefits. For middle-income families, the increase in use of benefits was largest for both parents (4.8 percentage points). The high-income families had a much larger increase in both parents using benefits (6.6), and a substantial decrease in mothers only using benefits (-4.6).

Last, we examine how the 2006 policy extension in Quebec affected who takes leave within families. Figure 2 shows that this policy extension led to a huge change in how parental benefits are used. Overall, for the province, the policy led to a 22.7 percentage point increase in sharing of leave and a 16.9 percentage point decrease in mothers only using benefits. However, this overall figure masks the fact that this pattern was found for only middle and high-income families. The 2006 policy change led to an increase in both parents taking leave in low-income families, with no large decrease in mothers taking leave. It is important to note that this increase in sharing of leave was much smaller than for middle or high-income families in Quebec, but similar in size to the effect of the 2001 policy change for the rest of Canada among high-income families. The scale of change is very different across Quebec and the rest of Canada. Moreover, the *net increase* in the use of benefits in this group was even larger than for middle or high-income families. We also estimated whether there was any effect of the 2006 policy extension outside of Quebec where the policy was not relevant and as expected, we found no effects.

DISCUSSION

Paid parental leave policies have been found to have positive effects on return to work, child health, maternal mental health, and father involvement (Gault et al., 2014). However, not all policy changes have a large or any effect on the use of leave, and the ways in which a particular policy might affect leave-taking can vary by socioeconomic status. Our paper

examined how two policies affected the use of paid parental benefits, and how the use and sharing of parental leave were affected differently across the spectrum of family income.

In Canada, the percent of two-parent families with a newborn using paid parental benefits policies increased from 64% in 1998 to 78% in 2012. There was also a large increase in the proportion of newborn families where both parents are using benefits, from 10% to 22%. Our research finds that the two policies implemented in 2001 and 2006 had much to do with this. The 2001 change led to a 4.2 percentage point increase in using paid parental benefits, and the 2006 policy in Quebec led to a 6.4 percentage point increase in that province. Other factors accounting for the increase are changes in the distribution of other characteristics (e.g. increase in dual earner households, older age of parents, etc.), and also a steady increase over time in the use of benefits perhaps due to increasing social acceptability of taking leave or increased social importance on bonding with an infant (about 1 percentage point per year).

The federal extension of benefits in 2001 included a number of changes, some of which widened eligibility for low-income earners and another that increased the length of parental benefits to be shared by either parent from 10 to 35 weeks. Different parts of the policy might have been important for low and high-income families. In terms of whether a family with a newborn used any paid parental benefits, the 2001 policy increased use twice as much for low and middle-income families than high-income families. The equalizing effect of this Canadian policy can be contrasted with the US experience with the Family Medical Leave Act, which provides unpaid leave. It had no effect on leave-taking among women with no college, but positively affected more educated women who are more likely to be covered by eligibility criteria (Han, Ruhm & Waldfogel, 2009).

Looking past the overall increase of benefits, we see two important differences in how the 2001 policy affected the use of benefits. First, in low-income families, the increased use of benefits went towards the mother only taking leave. This may be because before the policy change, these women did not have access to the program because of their pattern of labor force participation (working part-time, not reaching the required hours for eligibility, etc.). Among this group, there was almost no increase in the sharing of benefits or fathers' use of benefits. However, among middle- and high-income families, most of the increase was due to fathers starting to also use paid parental benefits. The policy did not intend to have different gendered effects across the income distribution, this is what seems to have occurred.

Quebec's Parental Insurance Plan, implemented in 2006, explicitly targeted increasing father's use of leave to promote gender equality at home and in the workplace. Overall, for the province, there was a large decrease in mothers' only taking leave and a big increase in the sharing of leave. However, it is important to note that this overall effect was much greater among middle and high-income families. There was still an increase in sharing leave among low-income families in Quebec, but the size of the effect was about 1/3 as that for higher earning families. Thus, the policy aimed to increase father involvement and co-parenting has been much more successfully among middle and high-income families.

Canada is an important case to consider for those interested in paid parental benefits policies. Canada's parental benefits are very generous compared with the United States, but in the low to middle range when compared with European countries. Canada's federal policy (since 2001) offers similar parental benefits policies to many European countries in terms of length of time off work available, but the level of benefits are at the low end of what is generally offered in Europe. Only the province of Quebec (since 2006) offers parental leave time specified just for

fathers, as is offered in Denmark, Iceland, Norway and Sweden (Koslowski et al., 2016). The Canadian cultural context, excluding Quebec, has many similarities to the United States, and can offer some example of what take-up of parental benefits might look like in the United States.

There are several limitations to our analysis. First, our data do not allow us to examine the length of leave taken or employer top-ups. Second, we did not examine workplace factors that predict take-up of parental benefits, or how use of benefits varies for lone parent or same sex families, but both can be addressed in future research. Third, we cannot rule out changes in fertility in response to the timing of parental leave changes. However, Phipps (2000) finds that there was no behavioral response of fertility to earlier changes in employment insurance in Canada, and the two policy changes were not anticipated by the public. Last, we cannot examine family dynamics that could be observed with survey data, such as marital satisfaction, the division of labor within a family, or support from extended family.

In conclusion, it is unknown how large of an effect on take-up parental leave policies will have before implementation, how the policy might affect different segments of the population differently. In this paper we show that the two latest reforms of parental leave in Canada had sizeable effects on take-up rates and that these effects vary across household income. Among higher income households the 2001 reform led to increased shared parental leave, whereas the same policy resulted in increases for mothers only among lower income households. It appears that a targeted policy for fathers, such as that implemented in 2006 in Quebec, was required for those in lower income to begin to share leave. Further research on parental leave policies can examine which theoretical framework can best account for the variation in use of parental leave, and the effects of parental leave on parent and child well-being.

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TABLES AND FIGURES

Table 1. *Percent of Families with a Newborn where at Least One Parent Uses Maternity/Parental Benefits by Parents' and Family Characteristics, 1998-2012 (n=3,084,838)*

	Percent		Percent
All families	73.84	Marital status	
Age of mother		Married	72.27
≤19	34.83	Common law	77.58
20-24	67.07	Family income in the year before childbirth	
25-29	77.71	< $30,000	42.32
30-34	77.28	$30,000 - $59,999	73.34
35-39	72.49	$60,000 - $89,999	83.28
40-44	67.42	$90,000 - $119,999	88.34
≥ 45	45.50	$120,000 - $149,999	89.90
Age of father		≥ $150,000	83.58
≤19	39.24	Relative income in the family in the year before the birth	
20-24	63.80	Only male works	39.34
25-29	78.18	Only female works	74.65
30-34	78.02	Both work: Male earns more than 60% of HH income	79.76
35-39	72.75	Both work: Female earns more than 60% of HH income	86.07
40-44	68.02	Earn similar shares of HH earnings, 40-60% each.	87.51
≥ 45	60.67	Neither has earnings	10.88
Province		Number of young children in the family in the year before the birth	
Newfoundland	70.54	0	73.11
Prince Edward Island	87.96	1	91.42
Nova Scotia	79.96	2	86.40
New Brunswick	82.79	3	80.83
Quebec	82.10	4+	71.43
Ontario	72.43		
Manitoba	68.92		
Saskatchewan	68.80		
Alberta	68.00		
British Columbia	71.82		
Territories	57.20		

Note: Data are from Statistics Canada, the Historical T1 Family File and T4-ROE-LEAP linkage file.

Table 2. *Percent of Families with a Newborn where at Least One Parent Uses Maternity/Parental Benefits by Year, 1998-2012*

Year	Sample size	Total	Mother only	Father only	Both mother and father
1998	249,136	64.08	46.35	7.43	10.31
1999	235,647	65.07	48.20	6.86	10.01
2000	214,018	66.49	49.80	6.75	9.94
2001	204,041	72.45	50.77	6.96	14.72
2002	192,492	73.19	50.54	7.02	15.62
2003	184,718	74.26	50.93	7.09	16.25
2004	189,587	74.45	51.79	6.84	15.82
2005	210,857	75.42	54.13	6.30	15.00
2006	221,008	77.03	50.16	6.00	20.87
2007	217,800	77.08	49.99	6.02	21.08
2008	214,996	77.69	49.92	5.97	21.81
2009	198,221	79.39	48.18	6.28	24.93
2010	185,954	78.69	48.68	6.03	23.98
2011	183,510	78.65	49.97	5.71	22.97
2012	182,853	78.36	50.53	5.52	22.31

Note: Data are from Statistics Canada, the Historical T1 Family File and T4-ROE-LEAP linkage file.

Table 3. *Marginal Effects Estimated from Linear Probability Models of at least One Parent of a Newborn Using Parental Benefits*

	Model 1	Model 2	Model 2a Low Income	Model 2b Middle Income	Model 2c High Income
Time Variables					
2001-2003 (1998-2000)	0.046***	0.043***	0.050***	0.048***	0.021***
Linear Time Trend	0.011***	0.006***	-0.001	0.009***	0.006***
Province (Quebec)					
Newfoundland		-0.009***	0.075	0.019***	-0.112***
Prince Edward Island		0.098***	0.225***	0.078***	0.059***
Nova Scotia		0.031***	0.077***	0.021***	0.025***
New Brunswick		0.048***	0.120***	0.031***	0.027***
Ontario		-0.048***	-0.056***	-0.062***	-0.021***
Manitoba		-0.044***	-0.040***	-0.059***	-0.012**
Saskatchewan		-0.072***	-0.091***	-0.088***	-0.003
Alberta		-0.110***	-0.084***	-0.136***	-0.066***
British Columbia		-0.036***	-0.009**	-0.047***	-0.029***
Territories		-0.161***	-0.221***	-0.174***	-0.079***
Mother's Age (30-34)					
≤19		-0.165***	-0.103***	-0.162***	-0.350***
20-24		-0.008***	0.018***	-0.002	-0.152***
25-29		0.012	0.026***	0.022***	-0.015***
35-39		-0.016***	-0.004	-0.022***	-0.015***
40-44		-0.039***	-0.012	-0.046***	-0.041***
≥ 45		-0.134***	-0.012	-0.173***	-0.190***
Father's Age (30-34)					
≤19		-0.106***	-0.059***	-0.106***	-0.147***
20-24		0.028***	0.025***	0.035***	-0.046***
25-29		0.034***	0.037***	0.037***	0.025***
35-39		-0.032***	-0.033***	-0.033***	-0.039***
40-44		-0.053***	-0.051***	-0.050***	-0.070***
≥ 45		-0.083***	-0.065***	-0.083***	-0.121***
Common-law Union (Married)		0.068***	0.082***	0.066***	0.048***
Number of Previous Children		0.028***	0.093***	0.041***	0.006**
Relative Income (Both work: dad earns more)					
Only male works		-0.345***	-0.229***	-0.353***	-0.519***
Only female works		0.087***	0.116***	0.119***	-0.084***
Both work: mom earns more		0.138***	0.201***	0.161***	0.014***
Earn similar shares		0.079***	-0.113***	0.094***	0.042***
Neither has earnings		-0.465***	-0.387***	-0.477***	-0.704***
Previous Year's Family Income ($90-119,999)					
< $30,000		-0.328***	-	-	-
$30,000 - $59,999		-0.147***	-	-	-
$60,000 - $89,999		-0.062***	-	-	-
$120,000- $149,999		0.023***	-	-	-
≥ $150,000		-0.199***	-	-	-
Constant	0.635	0.855	0.465	0.737	0.863
Number Observations	1,265,813	1,265,813	226,736	682,969	356,108
R squared	0.008	0.256	0.180	0.154	0.271

Note: Data are from Statistics Canada, the Historical T1 Family File and T4-ROE-LEAP linkage file.

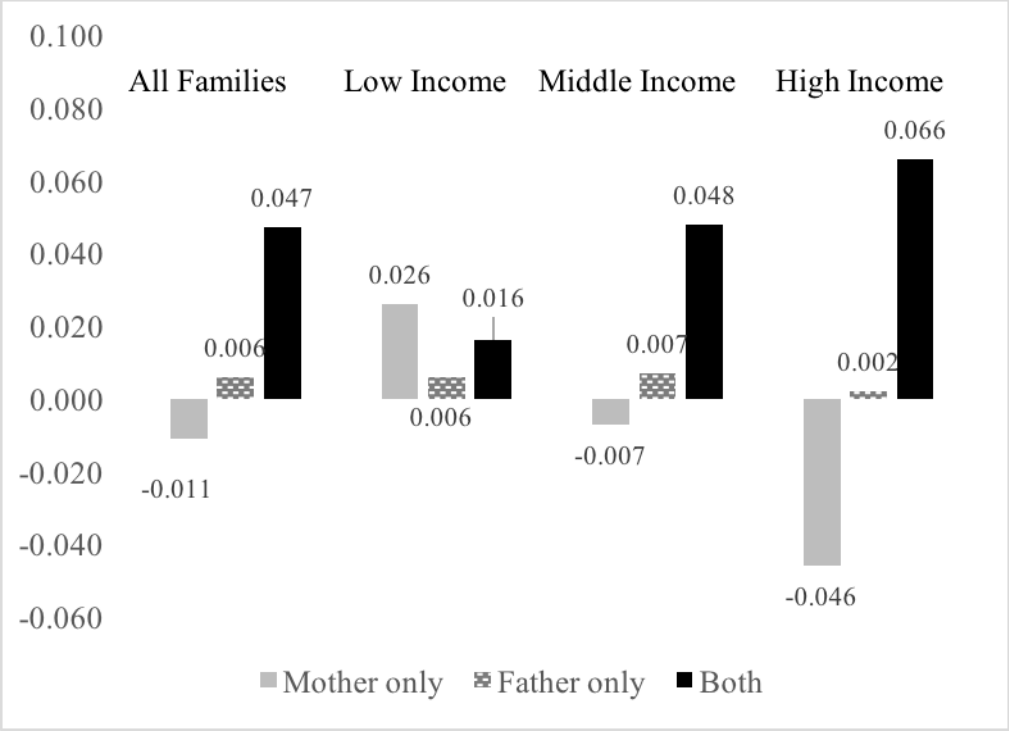
* $p<.05$. ** $p<.01$. *** $p<.001$. Low income refers to <$30,000 family income in the year before the birth. Middle income refers to $30,000-89,999 family income in the year before the birth. High income refers to family income of $90,000 or more in the year before the birth.

Table 4. *Marginal Effects Estimated from Linear Probability Models of at least One Parent of a Newborn Using Parental Benefits*

	Model 3	Model 4	Model 4a Low Income	Model 4b Middle Income	Model 4c High Income
Time Variables					
2006-2008 (2003-2005)	-0.004**	-0.003*	-0.002	-0.007**	-0.002
Quebec	0.074***	0.046***	0.041***	0.065***	0.021***
2006-2008 (2003-2005)* Quebec	0.064***	0.063***	0.110***	0.068***	0.053***
Linear time trend	0.005***	0.001	-0.003*	0.001	-0.003***
Mother's Age (30-34)					
≤19		-0.207***	-0.123***	-0.205***	-0.357***
20-24		-0.032***	0.012**	-0.022***	-0.140***
25-29		-0.001	0.025***	0.010***	-0.012***
35-39		-0.016***	-0.019***	-0.023***	-0.017***
40-44		-0.035***	-0.032***	-0.044***	-0.035***
≥ 45		-0.172***	-0.091***	-0.228***	-0.159***
Father's Age (30-34)					
≤19		-0.100***	-0.046***	-0.107***	-0.152***
20-24		0.008***	0.012**	0.014***	-0.047***
25-29		0.021***	0.029***	0.025***	0.018***
35-39		-0.027***	-0.035***	-0.027***	-0.033***
40-44		-0.050***	-0.055***	-0.044***	-0.061***
≥ 45		-0.077***	-0.059***	-0.075***	-0.099***
Common-law Union (Married)		0.054***	0.081***	0.052***	0.050***
Number of Previous Children		0.029***	0.065***	0.034***	0.019***
Relative Income (Both work: dad earns more)					
Only male works		-0.325***	0.240***	-0.293***	-0.482***
Only female works		0.027***	0.106***	0.048***	-0.132***
Both work: mom earns more		0.083***	0.176***	0.097***	0.015***
Earn similar shares		0.061***	0.123***	0.055***	0.049***
Neither has earnings		-0.536***	-0.445***	-0.470***	-0.759***
Previous Year's Family Income ($90-119,999)					
< $30,000		-0.284***	-	-	-
$30,000 - $59,999		-0.090***	-	-	-
$60,000 - $89,999		-0.033***	-	-	-
$120,000- $149,999		-0.015***	-	-	-
≥ $150,000		-0.139***	-	-	-
Constant	0.701	0.870	0.523	0.791	0.903
Number Observations	1,229,589	1,229,589	180,785	575,695	473,109
R squared	0.014	0.252	0.188	0.130	0.251

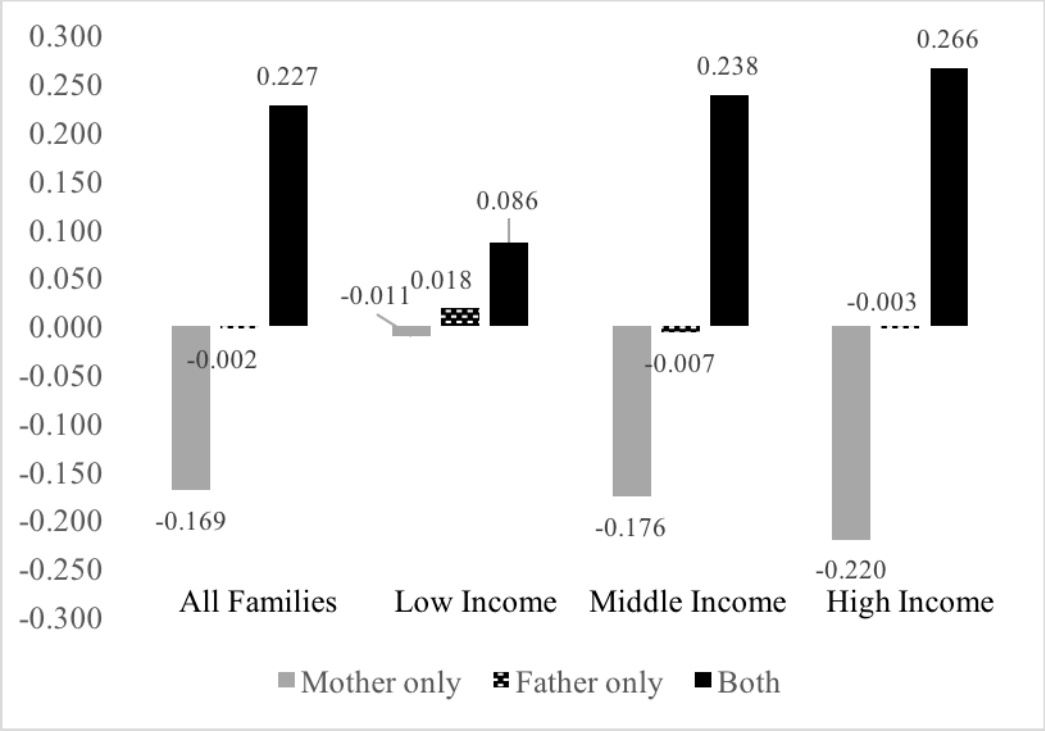
Note: Data are from Statistics Canada, the Historical T1 Family File and T4-ROE-LEAP linkage file.
* $p<.05$. ** $p<.01$. *** $p<.001$. Low income refers to <$30,000 family income in the year before the birth. Middle income refers to $30,000-89,999 family income in the year before the birth. High income refers to family income of $90,000 or more in the year before the birth.

Figure 1. *Marginal changes in the use of parental benefits due to the 2001 policy change in Canada, for all Families and by Family Income. Estimated from multinomial logit models estimating the likelihood of taking parental leave by mother only, father only, or both, relative to none taking leave, 1998-2003.*



Note: Full results shown in Appendix Tables A1 (All Canadian Families) and A2 (By Family Income).

Figure 2: *Marginal changes in the use of parental benefits due to the 2006 policy change in Quebec, for all Quebec Families and by Family Income. Estimated from multinomial logit models estimating the likelihood of taking parental leave by mother only, father only, or both, relative to none taking leave, 2003-2008.*



Note: Full results shown in Appendix Tables A3 (All Quebec Families) and A4 (By Family Income)

APPENDIX

Table A1. Marginal effects from multinomial logit model estimating the likelihood of using parental benefits by mother only, father only, and both, relative to neither using benefits, 1998-2003.

	Mother Only	Father Only	Both Parents
Time Variables			
2001-2003 (1998-2000)	-0.011***	0.006**	0.047***
Linear time trend	0.006***	-0.001	0.001*
Province (Quebec)			
Newfoundland	-0.134***	0.031	0.083***
Prince Edward Island	0.003	0.019	0.091***
Nova Scotia	-0.011***	0.014	0.024***
New Brunswick	-0.015***	0.018	0.043***
Ontario	0.025***	-0.016	-0.061***
Manitoba	0.018***	-0.013	-0.051***
Saskatchewan	-0.009***	-0.007	-0.056***
Alberta	-0.005***	-0.020	-0.080***
British Columbia	-0.015***	0.004	-0.026***
Territories	-0.121***	0.017	-0.051***
Mother's Age (30-34)			
≤19	-0.256***	0.063***	-0.006
20-24	-0.057***	0.019***	0.026***
25-29	-0.006***	0.003**	0.016***
35-39	-0.012	0.004	-0.008***
40-44	-0.034*	0.013**	-0.015***
≥ 45	-0.130**	0.036***	-0.044***
Father's Age (30-34)			
≤19	0.084***	-0.053***	-0.124***
20-24	0.025***	-0.009***	0.014***
25-29	0.027***	-0.004***	0.013***
35-39	-0.030***	0.008***	-0.009***
40-44	-0.049***	0.013***	-0.011***
≥ 45	-0.064***	0.012***	-0.024***
Common-law Union (Married)	0.006***	0.017***	0.047***
Number of Previous Children	0.027***	-0.013***	0.010
Relative Income (Both work: dad earns more)			
Only male works	-0.352***	0.080***	-0.035***
Only female works	0.169***	-0.085***	-0.031***
Both work: mom earns more	0.099***	-0.041***	0.077***
Earn similar shares	0.052***	-0.064***	0.074***
Neither has earnings	-0.322***	0.001***	-0.088***
Previous Year's Family Income ($90-119,999)			
< $30,000	-0.292***	0.077***	-0.070***
$30,000 - $59,999	-0.209***	0.076***	0.000
$60,000 - $89,999	-0.099***	0.034***	0.009***
$120,000- $149,999	0.050***	-0.014***	-0.017***
≥ $150,000	-0.103***	0.014***	-0.087***
Number Observations		1265813	
R squared		0.179	

* $p<.05$. ** $p<.01$. *** $p<.001$.

Table A2. Marginal effects from multinomial logit model estimating the likelihood of using parental benefits by mother only, father only, and both, relative to neither using benefits, by family income, 1998-2003.

	Low-Income Families			Middle-Income Families			High-Income Families		
	Mother Only	Father Only	Both Parents	Mother Only	Father Only	Both Parents	Mother Only	Father Only	Both Parents
Time Variables									
2001-2003 (1998-2000)	0.026***	0.006*	0.016***	-0.007**	0.007***	0.048***	-0.046***	0.002*	0.066***
Linear time trend	0.004***	-0.004***	-0.001*	0.009***	-0.001*	0.000	0.002*	0.001**	0.003***
Province (Quebec)		***							
Newfoundland	-0.066***	0.060***	0.052***	-0.139***	0.025***	0.113***	-0.152***	0.020***	0.025***
Prince Edward Island	0.053***	0.074***	0.069***	-0.018*	0.004	0.111***	0.007	0.016***	0.043***
Nova Scotia	0.013*	0.030***	0.024***	-0.021***	0.011***	0.028***	0.005	0.011***	0.008*
New Brunswick	0.017**	0.048***	0.040***	-0.036***	0.014***	0.054***	0.009	0.011***	0.008*
Ontario	0.024***	-0.044***	-0.033***	0.031***	-0.015***	-0.082***	0.022***	-0.001	-0.047***
Manitoba	-0.001	-0.017***	-0.017***	0.017***	-0.017***	-0.064***	0.037***	-0.003	-0.052***
Saskatchewan	-0.029***	-0.030***	-0.027***	-0.016***	-0.003	-0.071***	0.032***	0.000	-0.042***
Alberta	0.016***	-0.062***	-0.034***	-0.012***	-0.016***	-0.101***	0.008**	-0.004***	-0.069***
British Columbia	0.022***	-0.019***	-0.008***	-0.030***	0.011***	-0.033***	-0.011***	0.006***	-0.028***
Territories	-0.136***	-0.035***	-0.052***	-0.158***	0.044***	-0.063***	-0.048***	0.006*	-0.032***
Mother's Age (30-34)									
≤19	-0.152***	0.051***	-0.024***	-0.262***	0.078***	-0.013*	-0.386***	0.060***	-0.032***
20-24	-0.015***	0.023***	0.009***	-0.065***	0.027***	0.031***	-0.171***	0.026***	0.005
25-29	0.010***	0.009***	0.007***	-0.004**	0.004***	0.022***	-0.027***	0.003***	0.010***
35-39	0.000	-0.002	-0.003	-0.012***	0.004**	-0.011***	-0.012***	0.005***	-0.007***
40-44	-0.020**	0.007	-0.002	-0.030***	0.014***	-0.025***	-0.032***	0.009***	-0.011**
≥ 45	-0.108***	0.055***	-0.010	-0.126***	0.031***	-0.064***	-0.120***	0.023***	-0.033*
Father's Age (30-34)									
≤19	0.049***	-0.086***	-0.046***	0.121***	-0.055***	-0.178***	0.067***	-0.028***	-0.163***
20-24	0.033***	-0.014***	0.004*	0.025***	-0.005***	0.019***	-0.045***	0.002	0.010*
25-29	0.024***	-0.001	0.010***	0.032***	-0.006***	0.014***	0.017***	-0.001	0.013***
35-39	-0.027***	0.002	-0.008***	-0.034***	0.012***	-0.009***	-0.035***	0.005***	-0.009***
40-44	-0.038***	0.000	-0.016***	-0.055***	0.020***	-0.012***	-0.065***	0.009***	-0.009***
≥ 45	-0.047***	-0.009*	-0.018***	-0.070***	0.024***	-0.030***	-0.090***	0.009***	-0.021***
Common-law Union (Married)	0.025***	0.025***	0.031***	-0.002	0.019***	0.054***	0.002	0.009***	0.039***
Number of Previous Children	0.062***	-0.010	0.020***	0.045***	-0.022***	0.018***	0.004	-0.002*	0.002
Relative Income (Both work: dad earns more)									
Only male works	-0.267***	0.054***	-0.065***	-0.378***	0.108***	-0.046***	-0.365***	0.048***	-0.020***

Only female works	0.179***	-0.138***	-0.039***	0.194***	-0.077***	-0.019***	-0.037***	-0.018***	-0.004
Both work: mom earns more	0.194***	-0.106***	0.016***	0.150***	-0.052***	0.092***	-0.115***	0.019***	0.105***
Earn similar shares	0.116***	-0.120***	0.036***	0.074***	-0.085***	0.088***	-0.021***	-0.007***	0.070***
Neither has earnings	-0.268***	-0.080***	-0.101***	-0.319***	0.049***	-0.107***	-0.446***	0.060***	-0.112***
Number Observations		226736			682969			356108	
R squared		0.149			0.114			0.167	

* p<.05. ** p <.01. *** p <.001.

Table A3. Marginal effects from multinomial logit model estimating the likelihood of using parental benefits by mother only, father only, and both, relative to neither using benefits, Quebec families, 2003-2008.

	All Quebec Families		
	Mother Only	Father Only	Both Parents
Time Variables			
2006-2008 (2003-2005)	-0.169***	-0.002	0.227***
Linear time trend	-0.009***	0.001*	0.010***
Mother's Age (30-34)			
≤19	-0.105***	0.070***	-0.060***
20-24	-0.040***	0.018***	0.012***
25-29	-0.013***	0.003*	0.015***
35-39	0.002	0.003*	-0.017***
40-44	0.008	0.011***	-0.043***
≥ 45	-0.034	0.037***	-0.092***
Father's Age (30-34)			
≤19	0.140***	-0.024***	-0.165***
20-24	-0.007	-0.008***	0.023***
25-29	-0.008***	-0.008***	0.032***
35-39	0.008***	0.009***	-0.038***
40-44	0.015***	0.014***	-0.062***
≥ 45	0.030***	0.015***	-0.094***
Common-law Union (Married)	-0.017***	-0.014***	0.095***
Number of Previous Children	0.022***	-0.012***	0.003
Relative Income (Both work: dad earns more)			
Only male works	-0.152***	0.090***	-0.080***
Only female works	0.347***	-0.105***	-0.291***
Both work: mom earns more	0.137***	-0.052***	-0.061***
Earn similar shares	0.050***	-0.063***	0.050***
Neither has earnings	0.037	0.024***	-0.340***
Previous Year's Family Income ($90-119,999)			
< $30,000	-0.004	0.103***	-0.277***
$30,000 - $59,999	-0.046***	0.090***	-0.101***
$60,000 - $89,999	-0.034***	0.040***	-0.015***
$120,000- $149,999	0.055***	-0.020***	-0.034***
≥ $150,000	0.047	0.018***	-0.196***
Number Observations		302947	
R squared		0.212	

* $p<.05$. ** $p<.01$. *** $p<.001$.

Table A4. Marginal effects from multinomial logit model estimating the likelihood of using parental benefits by mother only, father only, and both, relative to neither using benefits, Quebec families by family income, 2003-2008.

	Low-Income Families			Middle-Income Families			High-Income Families		
	Mother Only	Father Only	Both Parents	Mother Only	Father Only	Both Parents	Mother Only	Father Only	Both Parents
Time Variables									
2006-2008 (2003-2005)	-0.011	0.018**	0.086***	-0.176***	-0.007**	0.238***	-0.220***	-0.003	0.266***
Linear time trend	0.002	0.002	-0.001	-0.011***	0.003**	0.011***	-0.013***	0.000	0.013***
Mother's Age (30-34)									
≤19	-0.111***	0.066***	-0.031***	-0.111***	0.092***	-0.082***	-0.002	0.071***	-0.271***
20-24	-0.013*	0.028***	0.011*	-0.044***	0.029***	0.005	-0.022*	0.027***	-0.089***
25-29	-0.007	0.011*	0.013	-0.015***	0.004*	0.023***	-0.020***	0.001	0.012**
35-39	-0.018*	-0.009	-0.002	0.008	0.008**	-0.028***	0.008	0.002	-0.021***
40-44	-0.016	-0.008	-0.013	0.023**	0.014**	-0.061***	0.010	0.009***	-0.040**
≥ 45	-0.098	0.016	-0.025	-0.006	0.064***	-0.149***	-0.008	0.006	-0.060
Father's Age (30-34)									
≤19	0.059***	-0.063***	-0.039***	0.173***	-0.022	-0.213***	0.255***	0.000	-0.351***
20-24	0.014*	-0.004	0.014*	-0.003	-0.004	0.015**	0.007	0.005	-0.038**
25-29	0.010	0.000	0.015**	-0.005	-0.011***	0.035***	-0.028***	-0.001	0.043***
35-39	-0.023***	0.006	-0.016**	0.007*	0.017***	-0.046***	0.023***	0.004**	-0.052***
40-44	-0.023**	-0.002	-0.029***	0.009	0.027***	-0.070***	0.045***	0.009***	-0.092***
≥ 45	-0.032**	0.005	-0.023*	0.022**	0.031***	-0.107***	0.076***	0.007*	-0.145***
Common-law Union (Married)	0.044***	-0.012***	0.075***	-0.032***	-0.025***	0.110***	-0.024***	-0.004***	0.102***
Number of Previous Children	0.043***	-0.018	0.016*	0.017	-0.018***	0.010**	0.020***	-0.005**	-0.005
Relative Income (Both work: dad earns more)									
Only male works	-0.187***	0.069***	-0.092***	-0.148***	0.125***	-0.098***	-0.091***	0.054***	-0.123***
Only female works	0.268***	-0.220***	-0.147***	0.367***	-0.105***	-0.307***	0.289***	-0.017*	-0.351***
Both work: mom earns more	0.231***	-0.180***	-0.026***	0.191***	-0.077***	-0.083***	-0.022**	0.024***	-0.021***
Earn similar shares	0.164***	-0.144***	0.056***	0.063***	-0.086***	0.056***	-0.013**	-0.007***	0.043***
Neither has earnings	-0.154***	-0.104***	-0.264***	0.085	0.086***	-0.383***	0.077	0.037***	-0.468***
Number Observations		43,495			162,348			97,104	
R squared		0.178			0.128			0.190	

* $p<.05$. ** $p<.01$. *** $p<.001$.