



# Sharing Parental Leave Among Dual-Earner Couples in Canada: Does Reserved Paternity Leave Make a Difference?

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## Abstract

In 2006, Quebec became the first Canadian province to offer non-transferable paternity leave to fathers. The availability of this five-week leave distinguishes the province from the rest of the country, where only maternity and parental leave are available. Using data from Statistics Canada's 2011 General Social Survey, the authors investigate to what extent the availability of reserved paternity leave and couples' conjugal union type affect the probability of fathers taking leave and the duration of leave. Among couples in which at least one parent took leave, descriptive analysis shows that 75% of Quebec fathers took leave, whereas only 50% of fathers elsewhere in Canada took leave. Both parents received wage replacement benefits in nearly 60% of cases in Quebec, but in only 8% of cases in other provinces. Multivariate analysis confirms that the availability of paternity leave is positively linked to the higher likelihood of Quebec fathers taking leave compared to fathers in other provinces. However, paternity leave is negatively associated with fathers' duration of leave, as well as that of mothers. Married fathers were more likely than cohabiting fathers to take parental leave in provinces outside Quebec, but not in Quebec. Among other variables, we find that education levels of mothers, gender-role attitudes (approached through sharing of housework), number of children, and family type significantly affect the likelihood of fathers taking leave. Duration of leave appears more closely associated with differences between partners in terms of age and income for mothers, and of education for both parents.

**Keywords** Parental leave · Paternity leave · Maternity leave · Parental benefits · Family policy · Gender equality · Canada

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## Introduction

The birth or adoption of a child can be challenging for couples in which both parents are employed. In the past, women often withdrew from paid work to stay home and care for their children. Today, although some women leave employment, most continue to work while raising children. Therefore, couples are faced with the question of how to care for their young children without sacrificing one or both parents' employment. In Canada, the federal and provincial governments have attempted to respond to these challenges by offering employment protection and paid parental leaves that parents can share following birth or adoption.

Despite the option to share parental leave, Canadian mothers continue to take leave at higher rates, and for longer periods, than fathers (Doucet et al. 2015). Although the availability of moderately long and well-paid maternity and parental leave is associated with higher labor force participation of mothers (as well as better health outcomes for both mothers and infants), researchers have found that extended periods of leave (longer than one year) reinforce gender inequality at home and in the workplace (Boeckmann et al. 2015). Lengthy maternity leave is linked to low-level occupational positions, greater occupational inequality between men and women, and a larger "motherhood penalty" (Blau and Kahn 2013; Schönberg and Ludsteck 2014).

One solution often proposed to reduce the negative effects of maternity leave is to create reserved paternity leave that offers wage replacement benefits that only fathers can claim. Previous studies have shown that non-transferable paternity leave is linked to fathers' increased uptake of leave (Lappegård 2012). However, it remains unclear whether this increase translates into a more egalitarian division of childcare, that is, to an increase in the duration of fathers' leave and a reduction in the duration of mothers' leave. Only a few studies have explored this question. Among these, Duvander and Johansson (2012) examine the impact of reforms that promote fathers' parental leave on the number of days of leave taken by mothers and fathers. They show that although reserved paternity leave is an effective means of increasing fathers' use of parental leave and extending its duration, change is easier at the beginning—that is, when levels of use are low. They note, however, that the reforms were introduced across time periods during which social and economic changes occurred, probably influencing the likelihood that parents would take and share leave (Duvander and Johansson 2012).

The creation of reserved paternity leave in the province of Quebec in 2006 makes Canada an excellent case for testing the impact of this measure on how couples use parental leave within a given period. Using the Canadian experience as a natural experiment, we examine whether the availability of non-transferable paternity leaves affects (1) the probability that Quebec couples will share leave and (2) the duration of fathers' and mothers' leave, compared to their counterparts in other provinces. Moreover, Canada constitutes a unique setting to investigate the extent to which conjugal relationship type influences how couples share leave, given that Quebec and the other provinces radically differ with regard to the prevalence and meaning of cohabitation. Quebec has one of the highest proportions of cohabiting couples in the world, whereas cohabitation levels in other provinces are moderate: in 2011, 38% of Québec couples cohabited compared to 14% in the rest of Canada (Statistics Canada 2012).

This paper contributes to the literature by focusing on couples as the unit of analysis, in contrast to previous studies that examine mothers' and fathers' use of parental leave separately. Given that one parent's decision to take leave rarely is made independently of the other parent, and because any length of time that one parent receives parental benefits reduces the amount of time available to the other parent, it is important to consider the couple as the unit of analysis (Beglaubter 2017; Kashy and Kenny 2014). By taking advantage of the 2011 General Social Survey (GSS) on families, we investigate to what extent the availability of reserved paternity leave and conjugal union type influence the probability of fathers taking leave and the duration of their leave. It is important to investigate how couples share leave, not only to understand couple-level decision making but also because patterns of leave use within couples have profound implications for women's labor market outcomes (Blau and Kahn 2017; Carlson 2013).

## Background

### Maternity Leave and Women's Labor Market Outcomes

Proponents of job-protected, paid maternity leave argue that it provides social and health benefits to mothers and children and job protection and compensation to mothers who take time out of the labor force to have children (Evans 2007; Low and Sánchez-Marcos 2015; Thomas 2015). Generous maternity-leave programs encourage women who may not otherwise choose to work before having children to enter the workforce, because such programs assure them of wage replacement benefits during leave and guarantee them jobs following leave (Byker 2016; Low and Sánchez-Marcos 2015). Mandel and Semynonv (2006) find that the labor-force participation rate of women, and in particular mothers, is higher in Nordic countries that offer generous paid leave of moderate duration (i.e., of one year or so) than Southern European and Anglo-Saxon countries that offer lower benefits. Blau and Kahn (2013), in their study of OECD countries, report that the lack of family-friendly policies in the United States (only certain groups of employees are granted up to 12 weeks of unpaid job-protected parental leave) explains a large part of the decrease in the U.S. female labor-force participation rate between 1990 and 2010. Furthermore, Spiess and Wrohlich (2008) note that Germany's introduction of Nordic-like paid parental leave, which replaced existing, means-tested parental leave benefit by a one-year wage-dependent benefit, resulted in a significant increase in the employment rate of mothers two years after childbirth and the average number of hours worked. However, the further expansion of the maternity leave benefit period up to 22 months after childbirth led to a reduction in the participation of mothers to the labor market (Schönberg and Ludsteck 2014).

Researchers find that relatively long and well-paid maternity leave also contributes to gender inequality and occupational sex segregation (Boeckmann et al. 2015; Evertsson and Duvander 2011). First, it is linked to female employment in low-level positions (Halldén et al. 2016). Compared to women in the United States, women in Scandinavian countries as well as those in other OECD countries that

offer generous maternity leave are less likely to be managers or professionals and less likely to be promoted (Thomas 2015; Blau and Kahn 2013). Second, gender-related occupational inequality is greater in countries that offer longer leave. Compared with women in the United States, Scandinavian women are more likely to be employed in the lower-paid public sector than in the higher-paid private sector (Misra et al. 2011). Datta Gupta et al. (2006, p. 33) argue that Nordic countries' maternity and parental leave programs have created a "system-based glass ceiling" in which women are crowded into a public sector that affords mothers greater flexibility but offers lower wages. Third, extended, well-paid maternity leave contributes to the "motherhood penalty," that is, the reduction in earnings mothers experience after taking maternity leave (Schönberg and Ludsteck 2014). For example, a Canadian study shows that mothers earn 5–10% less than childless women in the years following a maternity leave, and it takes seven years for mothers to reach the income levels of women without children (Zhang 2010).

Two mechanisms have been invoked to account for the relationship between relatively long maternity leave and negative employment consequences: human capital depreciation and statistical discrimination. In the first instance, mothers who take long leave lose general and firm-specific skills and forgo experience and network ties, putting them at a disadvantage with their colleagues and lowering their chances for promotion (Boeckmann et al. 2015; Galtry 2005; Schönberg and Ludsteck 2014). Halldén et al. (2016) hypothesize that more highly educated women suffer more from human capital depreciation than less-educated women, because they are more likely to have highly skilled jobs that require intense, firm-specific skills and more likely to work in rapidly changing industries.

In the second instance, statistical discrimination refers to the phenomenon in which employers, who have little knowledge of the future productivity of employees, engage (consciously or unconsciously) in discrimination against groups they expect will have lower levels of productivity (Boeckmann et al. 2015; Mandel and Semynov 2006). Therefore, in countries that offer lengthy maternity leave, employers may be reluctant to hire women or invest in training them, because they fear they will leave the workforce for extended periods to have children (Aisenbrey et al. 2009). From a purely economic perspective, employers—especially those in highly skilled sectors—are better off hiring and investing in employees who are less likely to take lengthy parental leave, that is, men (Galtry 2005; Mandel 2012). Consequently, mothers find themselves on a "mommy track;" despite job protection guarantees, mothers often experience little advancement beyond their pre-leave positions when they return to the labor force (Misra et al. 2011).

### **Paternity Leave as a Solution?**

The negative consequences attached to long paid maternity leave have led policy makers to introduce non-transferable paid paternity leave. The introduction of such leave in Nordic countries is associated with a number of positive outcomes for families and children, including improvements in children's school performance and cognitive competence, and greater marital satisfaction among fathers (Bünning 2015;

Cools et al. 2015). Reserved paternity leave is also proposed as a tool to address existing gender inequalities in the workplace (Feldman and Gran 2016). Research suggests that greater use of leave by fathers can counter the negative effects of maternity leave by allowing mothers to return to work earlier and reducing employers' incentives to hire and invest in men rather than women (Duvander and Johansson 2012). According to Valdimarsdóttir (2006, p. 9):

As fathers, with the help of paternity leave, increasingly occupy a presence in the home, it becomes easier for mothers to re-enter the labour market after childbirth. It is also believed that when men take the same length of parental leave as women, it will help make the labour market more gender equal in terms of opportunities, as the “cost” of childbirth is distributed more equally among men and women.

Non-transferable paternity leave is associated with an increase in fathers' uptake of leave following the births of their children (Lappegård 2012). One possible explanation for this result is that fathers do not feel they are taking parental days away from mothers when a portion of leave is reserved strictly for them (Axelsson 2014). Indeed, despite the high participation rate of women in employment, traditional gender ideologies and norms—which consider fathers to be the main providers of the family and mothers the primary caregivers—persist; they continue to influence couples' use of parental leave to balance work and family demands (Lappegård 2012; Thebaud and Pedulla 2016). Among traditional gender-role couples, mothers are regarded as the “owners” of parental leave, with fathers deferring to their female partners in deciding who will take leave, even though it is available to both parents (Lammi-Taskula 2008; McKay and Doucet 2010).

Unsurprisingly, research shows that a father is more likely to take parental leave when he is part of a couple that endorses egalitarian rather than traditional gender roles (Thebaud and Pedulla 2016; Valdimarsdóttir 2006). For example, in interviews with couples in New York State, Singley and Hynes (2005) observe that couples in which only the mother takes leave strongly believe that mothers should stay home while fathers work. Similarly, in a comparative study of Swedish and French fathers, Almqvist (2008) finds that the former, who tend to hold more egalitarian views of child-rearing, are far more likely to take leave than the latter, who are more inclined to consider that only mothers should be with their infants during the first year of life.

Studies also show that the legal *form* of the union matters. However, the literature is divided on its impact on the ways parents share parental leave. Cohabitation and marriage constitute two different forms of conjugal relationships; marriage typically is associated with a traditional division of labor, based on specialization and complementarity of work between spouses, whereas cohabitation is characterized by a more equal division of both paid and unpaid work between partners (Barg and Beblo 2012; Domínguez-Folgueras 2013). Consequently, we would expect married fathers, as main providers to the family, to be less likely than cohabiting fathers to take parental leave. However, research finds the opposite result. Married fathers have a greater tendency than their non-married counterparts to use parental leave in Sweden (Naz 2010) and Germany (Reich 2011). One possible explanation for this unexpected finding is that compared to cohabiting fathers—who focus more on the

pursuit of their own priorities—married fathers are more committed to their relationships and families and more willing to invest time in their children (Naz 2010; Reich 2011). However, studies also show that the gap between married and cohabiting couples varies according to the level of institutionalization of cohabitation and tends to narrow as cohabitation becomes more widespread and increasingly resembles marriage (Bianchi et al. 2014).

The economic opportunity cost attached to taking parental leave is another factor that affects couples' behaviors (Duvander 2014; Escot et al. 2014). Within couples, fathers still tend to be the higher income-earners. Therefore, even though a couple may wish to share leave, they may not be able to afford to forego the father's full income for a long duration (Valdimarsdóttir 2006). Accordingly, McKay and Doucet (2010) observe that when the wage replacement rate of leave is low—as it is outside Quebec, according to international standards (Beaujot et al. 2013)—fathers are less likely to take leave. Moreover, in couples, fathers are more likely to take leave when mothers earn the same or higher incomes (Lappegård 2012; Naz 2010). According to Reich (2011), this finding provides evidence that couples compare the opportunity cost of each parent taking leave according to their respective income levels.

Another potential factor in leave-taking is each partner's achieved level of education. Studies show that the higher the education levels of both parents, the more likely the father will take leave (Boll et al. 2013; Lammi-Taskula 2008). Escot et al. (2014) argue that although fathers with high education levels may suffer higher opportunity costs from taking leave—because they are more likely to earn higher incomes than those with low education levels—fathers (and mothers) with high education levels are also more likely to have egalitarian gender attitudes that override the opportunity costs. Additionally, women with high education levels are more likely to earn incomes similar to or higher than those of their partners, thus lowering the opportunity costs of foregoing fathers' incomes (Lappegård 2012).

## The Canadian Case

Canada provides an interesting case to investigate the impacts of reserved paternity leave and type of conjugal union on parents' leave-sharing. To do so, we contrast the province of Québec with the other provinces. Québec forms a distinct nation ("*nation québécoise*") in Canada and is governed by a civil code rather than by common law principles (Laplante and Fostik 2016). Québec also increasingly resembles Esping-Anderson's (1990) social-democratic type of welfare state, with the introduction of a universal low-cost childcare program in 1997 and a more generous parental leave program in 2006, including non-transferable paternity leave benefits, whereas the other provinces are typically characterized as liberal regimes (van den Berg et al. 2017). Its largely French-speaking population holds more liberal attitudes toward family issues than other Canadians and exhibits different conjugal patterns (Wu 2000).

Canada is a federation in which federal and provincial/territorial governments exert separate jurisdiction over various domains of public and private life. Job-protected parental leave is regulated by labor laws that fall under the jurisdiction

of provinces and territories. Wage replacement benefits are paid through the federally managed Employment Insurance (EI) program, except in Quebec, where they are paid through the Quebec Parental Insurance Plan (QPIP) introduced in 2006. Each province and territory (except Quebec) guarantees between 15 and 17 weeks of job-protected *unpaid* maternity leave to the birth mother and 34–52 weeks of job-protected *unpaid* parental leave to both parents.<sup>1</sup> Through EI, the federal government provides a maximum of 15 weeks of *paid* maternity leave and a maximum of 35 weeks of *paid* parental leave that can be shared however the couple wishes (Doucet et al. 2015). Therefore, residents of each province are entitled to varying lengths of *unpaid* maternity and parental leave, but all Canadians, outside of Quebec, are eligible for the same length of *paid* maternity and parental leaves.

To be eligible for EI wage replacement benefits, a parent must hold insurable employment (with EI premiums deducted from wages/salary) and have accumulated at least 600 working hours during the 52 weeks preceding the start of the leave. Since 2011, self-employed parents are eligible for EI benefits on a voluntary “opt-in” basis (Doucet et al. 2015).<sup>2</sup> In 2017, for both maternity and parental leave, parents received 55% of their average insurable earnings, up to \$51,300 (\$543 per week). The maximum insurable earnings are adjusted each year. Low-income families (families with net incomes of \$25,921 a year or less) may be eligible for the EI Family Supplement, depending on income and the number and age of previous children (Service Canada 2017).

Compared to federal EI benefits, the Quebec program is more generous (Beaujot et al. 2013), and both employees and self-employed workers are eligible for QPIP benefits (Doucet et al. 2015). The Quebec program comprises a basic plan and a special plan, the former providing benefits for a longer period of time but at a lower income replacement rate than the latter. Mothers are eligible for either 18 or 15 weeks of maternity benefits, at a 70% or 75% income replacement rate, respectively. Both parents are eligible for parental benefits of seven weeks at a 70% income replacement rate plus 25 weeks at a 55% income replacement rate on the basic plan, or 25 weeks at a 75% income replacement rate on the special plan. The most notable aspect of the QPIP is that non-transferable paternity benefits are available to fathers, paid for either five weeks at a 70% income replacement rate on the basic plan or for three weeks of benefits at a 75% income replacement rate on the special plan. The maximum insurable earnings in 2017 are set at \$72,500 and the eligibility requirements are far less demanding than those of the EI program. To be eligible, parents must have earned at least \$2000 in the qualifying period (52 weeks before the birth). Families with a net annual income of \$25,921 or less may be eligible to receive a supplement as in other provinces (Travail, Emploi et Solidarité sociale Quebec 2017). When paternity leave was introduced in 2006, one of the reasons cited by the

<sup>1</sup> For a detailed presentation of legislation related to unpaid maternity and parental leave in each province and territory, see Doucet et al. (2015) and McKay et al. (2012).

<sup>2</sup> If parents are self-employed, they must register for EI Special Benefits for Self-Employed People and contribute to EI.



government was that it would increase women's participation and positioning in the work place (Tremblay 2014).

Quebec also exhibits distinct demographic behaviors that are particularly noteworthy with respect to cohabitation. Before the 1980s, cohabitation was quite rare across Canada. In 1981, 7% of Quebec couples cohabited, compared to 5% in the other provinces. From that point on, the regions have taken divergent paths (Le Bourdais and Lapierre-Adamcyk 2004). Between 1981 and 2011, the percentage of cohabiting couples increased fivefold in Quebec, from 7 to 38% in 2011. In the rest of Canada, cohabitation spread at a much slower pace, reaching 14% in 2011. Moreover, there is little heterogeneity of cohabitation rates across the other provinces: 15% in British Columbia and Prairies, 12% in Ontario, and 17% in the Atlantic Provinces in 2011 (Statistics Canada 2012).

The proportion of young adults who opt for cohabitation as opposed to marriage when they start conjugal life is much higher in Quebec than in other provinces. The likelihood of Quebec cohabitators to marry their partner is lower than that of other Canadians, and the difference between marriage and cohabitation with regard to union dissolution is smaller in Quebec (Le Bourdais et al. 2014). In addition, cohabitation has become the favored conjugal setting in which to give birth and raise a child in Quebec. Since 2006, over 60% of all births occurred outside marriage, mostly to cohabiting couples, whereas in Canada as a whole (including Quebec) the percentage of non-marital births was only 32% in 2010 (Girard 2012). The fact that the Quebec Civil Code requires married women to retain their maiden names and exercise their rights under those names further contributes to making it difficult to differentiate between married and cohabiting couples in daily interactions. In Quebec, cohabitation appears to have become an alternative to marriage and a setting in which to have and raise a family, as opposed to other Canadian provinces, in which cohabiting unions remain relatively short-lived and are a less commonly chosen environment in which to have children.

## Hypotheses

Based on our literature review and empirical evidence, we formulate the following hypotheses:

**H1** Fathers are more likely to take parental leave in Quebec, which offers non-transferable paternity benefits, than in other provinces.

**H2a** Married fathers are more likely than cohabiting fathers to take parental leave in both Quebec and the other Canadian provinces.

**H2b** The gap between married and cohabiting fathers is smaller in Quebec, where cohabitation is more widespread and more closely resembles marriage, than in other provinces.

**H3** Fathers take longer, and mothers take shorter, leave in Quebec than in other provinces. (We derive this hypothesis from the idea that mothers whose partners spend time taking care of their newborns may be more open to sharing parental



leave and returning to work sooner. However, we might find the opposite result if fathers regard only reserved paternity leave as theirs).

**H4a** Married fathers take longer leave, and married mothers take shorter leave, than cohabiting parents, in both Quebec and the other Canadian provinces.

**H4b** The gap between married and cohabiting parents is smaller in Quebec than in other provinces.

## Method

### Data

Our study uses the General Social Survey (GSS) on families conducted by Statistics Canada in 2011. The target population of the survey included all individuals 15 years of age and older living in Canada, excluding residents of three territories (Yukon, Northwest Territories, and Nunavut) and residents of institutions. In total, 22,435 respondents participated in the survey.

Respondents who had or adopted a child in the five years prior to the survey and who were working before the birth or adoption were asked whether they or the other parent, if applicable, took time off from work before or after the arrival of their child. Of the initial sample, 2457 respondents (1108 males and 1349 females) indicated they had had a child in the past five years. Of these, 32 were excluded from further questioning because they provided insufficient information regarding work activities. Given that we were interested in examining how working parents take and share parental leave, we excluded 486 cases in which only one of the parents was working. We retained only respondents living with their spouses or cohabiting partners<sup>3</sup> and excluded 224 divorced, separated, or single individuals for whom we had incomplete information about the other parent of the child.<sup>4</sup> Our original sample comprised 806 male and 909 female respondents who belonged to 1715 couples.

### Measures: Dependent Variables

**Use of Leave** The GSS asked respondents who reported working before having a child “Before or after the birth/adoption of your youngest child, did you take time off, paid or unpaid, from this job?” The survey asked the same question about the other parent of the child. We combined the responses to these two questions to create a poly-dichotomous variable with the following categories: (a) only the mother in the

<sup>3</sup> Only two respondents were in same-sex partnerships; we excluded them from our analysis.

<sup>4</sup> Given that our study explores how couples’ characteristics affect the way they share leave and benefits, it was essential to have complete information for both parents in the couple. Separate analysis (not shown) including parents not living together, and using only characteristics of the respondent, revealed similar findings to the results found here.

couple took leave; (b) only the father took leave; (c) both parents took leave; and (d) neither took leave. We further merged the second and third categories into a single category (“father taking leave”) for the multivariate analyses, given the small number of couples in which only the father took parental leave.

**Duration of Leave** All respondents who were part of a couple in which at least one parent took a leave ( $n = 1628$ ) were asked if they or their partner did “receive maternity or parental benefits (i.e., money ... from Employment Insurance, or from the Quebec Parental Insurance Plan) after the birth/adoption of (their) youngest child” and, if applicable, for how many weeks they received such benefits.<sup>5</sup> Using the answers to these questions, we established the duration of paid leave taken by mothers and fathers. The reported duration ranged from one to 70 weeks.

We used this variable as a measure of mothers’ and fathers’ leave duration. Our measure thus excludes parents who solely took unpaid leaves (e.g., vacation, time off), the duration of which was likely to be relatively short. It also excludes a larger proportion of fathers than mothers: Only slightly more than 40% of fathers who had reported taking a leave received wage replacement benefits, compared to 87% of mothers (see Table 2).<sup>6</sup> Our leave-duration variable provides a measure of the use by parents of government offered paid parental leaves, which is comparable to that used in other studies.

### Measures: Independent Variables

**Region** This variable distinguishes between respondents living in Quebec and those living in the other Canadian provinces.<sup>7</sup>

**Type of Union** This variable differentiates between couples who were legally married and those who reported living with a partner without being married.

**Education Level** The GSS collected information on the highest level of education attained by respondents and their partners. We combined the responses to these questions to establish the education achieved by each parent. This variable comprises four categories: (1) university bachelor degree or higher, (2) diploma or certificate from a community, vocational, or technical college, (3) high school diploma, and (4) less than high school degree. We also created a *relative education variable* that indirectly compares the opportunity cost attached to each parent’s leave. This variable consists of three categories: (1) partners have completed the same level of education, (2) the father has achieved a higher level of education, or (3) the mother has achieved a

<sup>5</sup> Unfortunately, the survey did not collect information on the type of plan (basic or special) that Quebec parents chose.

<sup>6</sup> The excluded cases comprise almost all self-employed parents living outside Quebec (47 of 53 mothers and 46 of 47 fathers) who probably had not opted in and registered for EI special benefits and, therefore, were not entitled to wage replacement benefits.

<sup>7</sup> An analysis using each province separately revealed very little difference between provinces outside Quebec; therefore, we grouped them into one category.

higher level of education. For example, if the mother completed a university degree and the father achieved a lower education level (e.g., diploma from a technical college or high school degree), we classified the couple in the last category.

**Household and Partner's Relative Income** Respondents were asked to report their total personal income and their total household income before taxes and deductions during the year 2010 preceding the survey (negative incomes were recoded to \$1). Those who did not provide a figure were further asked if their incomes fell within some pre-specified categories. We assigned the mid-point category of income to those who answered these questions. To avoid losing too many cases with missing data on income, we further used multiple imputation to assign a value to respondents' personal incomes based on their gender, age, education, occupation, province, and number of hours and number of weeks worked during the preceding year. For household income, we further included the characteristics of the partners.

The GSS did not collect information on partners' incomes. Therefore, we estimated their incomes by subtracting each respondent's personal income from that of the household. Using this data, we calculated the percentage of the household income contributed by the mother and created a relative income variable that comprises three categories: (a) partners have a similar income when the mother earned 40–59% of the household income, (b) the father earned a higher income when the mother's income constitutes less than 40% of the household income, or (c) the mother earned a higher income when her income represents 60% or more of the household income.

**Gender Attitudes** The GSS did not collect direct information on respondents' attitudes towards gender and family life. However, it did gather data on partners' relative contributions to a series of household tasks that we used as a proxy of gender attitudes. We assumed that couples who share household tasks evenly or in which fathers carry a larger share of tasks hold progressive views on the roles of mothers and fathers, as previous research suggests (Davis and Greenstein 2009; Shockley and Shen 2015). We retained only the tasks that are usually repeated at least once a week and are time consuming, that is, meal preparation, cleaning, dishwashing, laundry, and grocery shopping. For each of these, respondents were asked: "Who in your couple mainly takes care" of the task: "mostly you," "mostly your spouse/partner," "shared equally," or "neither." Using responses to these questions, we assigned a score for each task: 1, mostly mother performed the task; 2, the task is shared equally or neither parent performed the task; and 3, mostly father performed the task. Next, we calculated the average score for the five tasks (ranging from 1–3) which we used to create a poly-dichotomous variable measuring which parent most often does the housework: (a) mother always does most (score = 1); (b) mother usually does most (1.2–1.7); (c) partners usually share (1.8–2.2); and (d) father usually does most (2.4–2.8).

## Other Controls

We also controlled for different factors that literature has found affects parents' likelihood of taking parental leaves. These include mother's age (in years) and age difference between partners: (a) mother is 2+ years older than father; (b) there is less than 2 years difference between partners; (c) father is 2–4 years older than mother; and (d) father is 5+ years older than mother. We controlled for the number of children under 14 years of age living in the household that respondents had, adopted or raised, as well as for family structure: (a) family with couple's own children only, or (b) stepfamily with at least one child born to one of the partner's previous relationships.

## Analytic Strategy

To gain an understanding of how parents share leave in Quebec compared with those in other Canadian provinces, we first examined the distribution of couples who took parental leave according to the parent who took the leave, as well as the number of weeks during which mothers and fathers received wage replacement benefits. Second, we ran logistic regressions to predict the odds ratios of fathers taking leave (merging only fathers and both parents taking leave), as opposed to only mothers taking leave (reference category). We ran four models: 1) including only the region of residence of the couple, 2) adding the union type, 3) adding an interaction term between region and union type to test the differential effect of cohabitation, and 4) adding all other independent variables. Our analysis was based on 1541 couples, after we excluded 87 cases with missing data on any of the covariates. Third, we followed the same approach and performed ordinary least squares (OLS) regressions to investigate the duration (number of weeks) of paid leave that mothers and fathers took. We ran the analysis separately for all mothers ( $n=1212$ ) and fathers ( $n=309$ ) who received wage replacement benefits, irrespective of whether the other parent did so, after we excluded cases with missing data. We estimated all models using bootstrap weights to adjust the standard errors of the estimates.

## Results

### Descriptive Statistics

Table 1 presents the distribution of variables by region among couples who had a child in the five years preceding the survey and in which at least one parent took leave. One-quarter of couples lived in Quebec and three-quarters in other Canadian provinces. In slightly over 40% of couples, only the mother took parental leave following the birth of the child. However, the situation differs significantly between regions. The percentage of couples in which only the mother took a leave is twice as high (49.2%) outside Quebec as it is in Quebec (23.9%). In contrast, in 75%

**Table 1** Characteristics of couples in which at least one parent took leave, by region. *Source* Statistics Canada, 2011 General Social Survey

Variable	Quebec	Other provinces	Canada
Region	25.6	74.4	100.0
Parent who took leave*			
Only father	3.4	3.3	3.4
Both parents	72.7	47.5	53.9
Only mother	23.9	49.2	42.7
Conjugal status*			
Married	36.0	86.6	73.6
Cohabiting	64.0	13.4	26.4
Mother's education <sup>a</sup>			
University	42.7	45.5	44.8
College or trade	34.2	30.1	31.2
High school	18.9	20.8	20.3
Less than high school	4.2	3.5	3.7
Education difference <sup>b,*</sup>			
Same education	43.5	53.8	51.1
Father with higher education	19.2	16.2	17.0
Mother with higher education	37.3	30.0	31.9
Household income (mean) <sup>c,*</sup>	93,982	114,810	109,452
Income difference <sup>d,*</sup>			
Relative equal income	40.6	31.4	33.8
Mother earns < 40% household income	46.5	55.9	53.4
Mother earns ≥ 60% household income	12.9	12.7	12.8
Housework <sup>e</sup>			
Always mother	12.1	13.6	13.2
Usually mother	46.4	43.6	44.3
Shared equally	38.7	39.1	39.0
Usually father	2.8	3.7	3.5
Mother's age (mean) <sup>f</sup>	32.6	33.8	33.5
Age difference <sup>g</sup>			
Mother 2+ years older	8.1	10.2	9.7
Less than 2-year difference	40.6	44.4	43.4
Father 2–4 years older	29.5	26.5	27.3
Father 5+ years older	21.8	18.9	19.6
Number of children living in household <sup>h</sup>			
1 child	40.9	39.8	40.1
2 children	39.3	42.7	41.8
3+ children	19.8	17.5	18.1
Family type <sup>i</sup>			
Only couple's own children	90.2	92.7	92.1
At least one stepchild	9.8	7.3	7.9
Unweighted N	328	1300	1628

All percentages are weighted. \* $p < 0.05$

Missing cases: <sup>a</sup>17; <sup>b</sup>31; <sup>c</sup>48; <sup>d</sup>54; <sup>e</sup>24; <sup>f</sup>3; <sup>g</sup>10; <sup>h</sup>8; <sup>i</sup>12

of couples, fathers took leave in Quebec compared to 50% elsewhere in Canada, thereby supporting Hypothesis 1.

Table 1 shows that nearly two-thirds of couples who had a child and took parental leave in the five years preceding the survey were cohabiting in Quebec, as opposed to only 13.4% of those living in other Canadian provinces. The large majority (76%) of mothers completed a post-secondary degree in the two regions; however, a greater proportion of Quebec mothers held a higher educational degree than their partner (37.3% compared to 30.0%). Quebec respondents reported significantly lower household incomes than those living outside that province, but they were more likely than other Canadian couples to have earned incomes that were relatively similar to those of their partners (40.6% versus 31.4%). In both regions, nearly 60% of mothers did all or most of household tasks and only 10% were at least two years older than their partner. Approximately the same percentage (40%) of couples had one or two children living with them in the two regions, and the overall majority (90%) lived with only their common biological or adopted children.

Table 2 displays the proportion of couples who received wage replacement benefits among those in which at least one parent took leave, as well as the duration of paid leave taken by each parent. In Canada as a whole, in approximately one couple out of five, both partners received benefits but the percentage differed drastically between regions. It was 7.5 times larger in Quebec (59.4%) than in the other provinces (7.8%). Similarly, the proportion of fathers taking paid leave was four times larger in Quebec (84.0%) than elsewhere in Canada (21.4%). However, although Quebec fathers were more likely to use paid leave than other Canadians, they did so for a shorter duration: The average number of weeks during which they received

**Table 2** Among couples and parents who took leave, proportion who received wage replacement benefits and duration of paid leave, by region. *Source* Statistics Canada, 2011 General Social Survey

	Québec	Other provinces	Canada
Among couples who took leave, % who received benefits <sup>a,*</sup>			
Both parents	59.4	7.8	21.1
Only mothers	31.9	73.8	63.0
Only fathers	4.7	2.9	3.4
Neither parent	4.0	15.5	12.5
Unweighted N	328	1300	1628
Among mothers who took leave, % who received benefits <sup>b,*</sup>			
Duration of benefits (mean # of weeks) <sup>d</sup>	41.5	43.7	43.1
Unweighted N	314	1243	1557
Among fathers who took leave, % receiving benefits <sup>c,*</sup>			
Duration of benefits (mean # of weeks) <sup>e,*</sup>	6.7	15.0	9.5
Unweighted N	247	638	885

All percentages are weighted. \* $p < 0.05$

Missing cases: <sup>a</sup>13; <sup>b</sup>11; <sup>c</sup>5; <sup>d</sup>80; <sup>e</sup>25

wage replacement benefits was slightly less than half of that observed in other provinces (6.7 weeks compared to 15.0 weeks). In contrast, mothers did not differ significantly across regions in duration of paid leave. These descriptive results thus appear to run counter to the predictions of Hypothesis 3.

## Multivariate Results

### Probability of Fathers Taking Leave

Table 3 presents the odds ratios of fathers taking leave (including only fathers and both parents taking leave) compared to only mothers taking leave (reference category). Model 1 serves as a baseline model and shows that among couples who had a child in the five years preceding the survey, Quebec fathers were three times more likely to take leave than other Canadians, thereby confirming Hypothesis 1. The addition of conjugal status in Model 2 increased the difference observed between regions (from 3.18 to 3.94).

As predicted by Hypothesis 2a, married fathers were more likely than cohabiting fathers to take parental leave. However, when we controlled for the differential impact of conjugal status across regions (Model 3), the gap between married and cohabiting couples was much smaller—and in fact, no longer significant—in Quebec than it was elsewhere in Canada. Cohabiting fathers living outside Quebec had a 42% lower probability of taking parental leave than their married counterparts, whereas those living in Quebec had similar odds of doing so (2.90 compared to 3.11). The contrast between regions is particularly striking for cohabiting couples: Unmarried Quebec fathers were five times more likely to take leave than other Canadians (2.90 vs. 0.58), compared to three times more likely for married fathers (3.11 vs. 1). These results confirm Hypothesis 2b, that the gap between married and cohabiting fathers is smaller in Quebec, where cohabitation is more widespread and more closely resembles marriage. The introduction of couples' characteristics into the equation does not significantly alter the conditional effects by region of conjugal status (see Model 4).

Model 4 includes all other control variables, that is, sharing of housework, mothers' age and education, and age and education difference between partners, household income, and income difference between partners, family type, and number of children. Couples' sharing of household tasks appears closely linked to the probability of fathers taking parental leave. Fathers who usually do most of the housework were nearly twice as likely to take leave compared to those who equally share tasks with their partners ( $p$  close to 0.10). In contrast, when mothers did most of the housework, fathers were less than half as likely to take leave.

Mothers' highest attained level of education is another strong predictor of fathers taking leave. We found that fathers whose partners hold at least a university bachelor degree were 35–55% more likely to take parental leave than those whose partners have completed lower levels of education (ratios ranging from 0.42–0.64). When



**Table 3** Odds ratios of fathers (only fathers and both parents) taking leave as opposed to only mothers taking leave. *Source* Statistics Canada, 2011 General Social Survey

Variables	Model 1	Model 2	Model 3	Model 4
Region (other provinces)				
Quebec	3.18***	3.94***		
Conjugal status (married)				
Cohabiting		0.68*		
Region × conjugal status (Married – other provinces)				
Cohabiting—other provinces			0.58**	0.59*
Married—Quebec			3.11***	3.46***
Cohabiting—Quebec			2.90***	3.29***
Mother's education (university)				
College or trade				0.46***
High School				0.64*
Less than high school				0.42*
Education difference (same level)				
Father—higher education				1.09
Mother—higher education				0.87
Household income (log)				1.04
Income difference (relatively equal income)				
Mother < 40% household income				1.07
Mother ≥ 60% household income				0.93
Housework (shared equally)				
Always mother				0.45***
Usually mother				0.88
Usually father				1.81
Mother's age				1.00
Age difference (< 2 year difference)				
Mother 2+ years older				1.10
Father 2–4 years older				1.03
Father 5+ years older				0.78
Number of children in household (1 child)				
2 children				0.62**
3+ children				0.48***
Family type (couple's own children)				
Stepfamily				1.73 <sup>†</sup>

Bootstrap weights were used. N = 1541. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; <sup>†</sup> $p < 0.10$

Reference categories are in parentheses

we controlled for women's levels of education, the existing difference between partners' education was no longer linked significantly to the probability of fathers taking leave.<sup>8</sup> Neither the log of household income nor the relative income variable that

<sup>8</sup> We also controlled for fathers' level of education, separately and in conjunction with mothers' education, but its effect was not statistically associated with the probability of fathers taking parental leave.

compared fathers' and mothers' personal incomes were statistically associated with the likelihood of fathers taking leave.<sup>9</sup>

With regard to family characteristics, we found that fathers who are part of a step-family were 73% more likely to take parental leave than those living with biological/adopted children only. Fathers who have only one child also were significantly more likely than those living with two or more children to do so.

### Duration of Paid Leave

Table 4 presents the OLS regression coefficients that predict the duration (number of weeks) of paid leave taken by mothers and fathers. Model 1 shows that Quebec fathers' leave was an average of 8 weeks shorter than those of other Canadians, and Quebec mothers' leave was an average of 2.5 weeks shorter. These first results only half-confirm Hypothesis 3, which predicted that Quebec fathers would take longer, and mothers shorter, leave than other Canadian parents. The introduction of conjugal status in Model 2 slightly decreases the coefficient attached to leave duration between regions for fathers and increases that of mothers. Nevertheless, both coefficients remain statistically significant.

Contrary to Hypothesis 4a, conjugal status of parents is not linked significantly to duration of leave for fathers or mothers. Furthermore, the introduction of interaction effects between union type and region in Model 3 does not reveal a narrower gap between married and cohabiting parents in Quebec, as predicted by Hypothesis 4b. Hence, the coefficient associated with cohabiting mothers and fathers living outside of Quebec does not significantly differ from that of the reference category (married parents outside of Quebec), and the difference between the coefficients of Quebec cohabiting and married parents is not statistically significant. Therefore, we did not include any interaction terms in the next models.

When we included all other control variables in Model 5, we found that both fathers and mothers in Quebec took significantly shorter paid leave than other Canadians: averages of 2.2 weeks less for mothers and 4.6 weeks less for fathers. Therefore, Hypothesis 3 is only partly confirmed, with mothers taking shorter leaves in Quebec as expected, and with fathers also taking shorter leaves, contrary to our expectation. There seems to be no difference between cohabiting and married parents in use of paid leave. Hypotheses 4a and 4b are thus not supported by our analysis.

That only one, rather than both, parents took paid leave appears to have no significant influence on the leave duration of mothers, but it is significantly linked to the leave duration of fathers. Fathers whose partners also received wage replacement benefits took leave that was an average of 13 weeks shorter than the leave of those who were the sole parent benefiting from paid leave (see Model 4).

As we observed for the probability of fathers taking leave, sharing of housework is associated with leave duration of both fathers and mothers. Mothers who always

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<sup>9</sup> We also tested the percentage of household income contributed by the mother and found no significant effects.

**Table 4** Predicting duration (number of weeks) of paid leave taken by mothers and fathers (regression coefficients). *Source* Statistics Canada, 2011 General Social Survey

Variable	Mothers					Fathers				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5
Region of residence (other provinces)										
Quebec	-2.46*	-2.94**		-2.11	-2.22 <sup>†</sup>	-8.15***	-7.27***		-4.36 <sup>†</sup>	-4.64 <sup>†</sup>
Conjugal status (married)										
Cohabiting		0.91		0.87	1.53		-1.61		-2.13	-1.38
Region X conjugal status (married – other provinces)										
Cohabiting—other provinces			0.98					-4.27		
Married—Quebec			-2.86 <sup>†</sup>					-7.94**		
Cohabiting—Quebec			-2.06 <sup>†</sup>					-8.98***		
Only mother/only father took paid leave										
Both parents took paid leave				-1.38	-0.93				-12.85**	-12.69**
Mother's education (university)										
College or trade					0.45					-1.59
High school					2.32					-2.05
Less than high school					-0.44					-3.82
Education difference (same level)										
Father—higher education					2.13					3.48*
Mother—higher education					4.35***					1.91
Household income (log)					0.30					-0.09
Income difference (relatively equal income)										
Mother < 40% household income					2.19*					1.30
Mother ≥ 60% household income					-0.05					-1.70
Housework (shared equally)										
Always mother					2.62 <sup>†</sup>					-3.17 <sup>†</sup>
Usually mother					1.88 <sup>†</sup>					-0.34

**Table 4** (continued)

Variable	Mothers					Fathers				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5
Usually father					2.09					-0.98
Mother's age					0.32**					0.18
Age difference (<2 year difference)										
Mother 2+ years older					-2.86†					-0.41
Father 2-4 years older					-1.37					-0.42
Father 5+ years older					-2.07†					-0.61
Number of children in household (1 child)										
2 children					1.13					-0.06
3+ children					-1.82					-1.50
Family type (Couple's own children)										
Stepfamily					-1.69					-1.09
Constant	44.07	43.94	43.94	44.08	25.88	14.88	15.06	15.36	24.65	19.70

Bootstrap weights were used. Mothers, N = 1212; Fathers, N = 309. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; † $p < 0.10$

Reference categories are in parentheses

or usually do most of the housework tended to take longer leave than those who equally share tasks. Conversely, fathers associated with mothers who do most of the housework took leave that was an average of three weeks shorter (see Model 5).

Education differences between partners are significantly linked to duration of leave for both partners. Mothers with higher educational degrees than their partners took longer leave than mothers with education levels similar to their partners; fathers with higher degrees than their partners also took longer leave. We did not find any other variables that significantly affected fathers' leave duration (probably because of the small number of cases in some categories). Among mothers, both age differences and income gaps with partners were significant determinants of leave duration. First, mothers who were older or markedly younger (5 years or more) than their partners took shorter leave than those who were of about the same age or two to four years younger. Second, mothers who earned less than 40% of household income took longer leave than those who contributed larger amounts to that income.

## Discussion and Conclusion

The aim of this study is to contribute to the literature on fathers' use of parental leave and to explore the impacts of reserved paternity leave and conjugal union type on how parents share the uptake and duration of leave. Specifically, we use data from the Canadian 2011 General Social Survey on family to compare the use and duration of leave in Quebec and elsewhere in Canada, given that these two regions have followed different paths with regard to family policies and cohabitation. In 2006, Quebec introduced a non-transferable paid paternity leave and improved the maternity and parental benefits that already existed across the country. Furthermore, in Quebec, cohabitation is more widespread and more closely resembles marriage than elsewhere in the country.

Logistic regression analysis shows that among couples who had a child in the five years prior to the survey and in which at least one parent took leave, the probability of fathers taking leave was approximately three times higher in Quebec than in other provinces, and this result holds after controlling for couples' characteristics. The result confirms our first hypothesis and emphasizes the importance of reserved paternity leave in encouraging fathers to spend time with their newborns. As observed in previous studies and predicted in our second sub-hypothesis, our analysis shows that married fathers were more likely to take parental leave than their cohabiting counterparts. However, when we allowed the impact of conjugal status to vary across regions, we found the gap between married fathers and cohabiting fathers to be narrower—in fact, non-existent—in Quebec, even though it remained large and significant in other provinces. In other words, in Quebec, unlike in the other provinces, cohabiting fathers appear to have adopted married fathers' behaviors, at least in terms of parental leave uptake.

We also examined whether fathers in Quebec took the minimum number of weeks available to them or whether they tended to share parental leave with corresponding mothers. That is, we sought to determine whether the availability of paid paternity leave led to a “spill-over” effect, whereby mothers whose partners spend time taking

care of their newborns are more open to sharing parental leave and returning rapidly to work. Regression analysis reveals that this is only partly true. After controlling for couples' characteristics, we found that Quebec mothers took shorter parental leave (average 2.2 weeks shorter) than those living elsewhere in Canada. However, their shorter paid leaves were not paralleled by fathers' longer leaves: fathers' leave duration was an average 4.6 weeks shorter in Quebec than in other provinces. Furthermore, fathers whose partners also benefited from paid leave, and whose numbers were significantly larger in Quebec, were shown to take an average of 13 weeks less leave than those who were sole parents receiving wage replacement benefits. In other words, the availability of reserved paid paternity leave did not have the desired positive effect; our results suggest that couples consider "paternity" leave to be the only leave fathers are entitled to and continue to consider 'parental' leave as belonging to mothers.

The decisions of parents to take some parental leave—paid and/or unpaid—and to share the duration of paid leave between them seem to respond to differing rationales. Fathers' likelihood of taking leave appears to be closely linked to gender attitudes. That is, fathers who usually do most of the housework are more likely to take leave than those who equally share tasks with their partners and are less likely to do so in relationships where mothers do most of the housework. Fathers whose partners hold at least a university diploma also have a higher probability of taking leave. This is perhaps not surprising, given that research shows that highly educated couples tend to have more egalitarian gender attitudes. Moreover, the propensity of fathers to take leave appears to be influenced by their family situations; those who have only one child and live with common biological/adopted children are more inclined to take some time with their newborns.

When faced with the decision of which partner in a couple will take wage replacement benefits (and thus forego employment income, at least temporarily), couples seem more inclined to take opportunity costs into consideration. In addition to sharing of housework, differences between partners in terms of income contribution to the household and level of education are statistically linked to mothers' leave duration: Mothers earning less than 40% of household income took longer leave than those having relatively similar income to their partners. Furthermore, both mothers and fathers with higher educational degrees than their partners took longer paid leave than those having similar education levels. Although this is somewhat surprising, given that more highly educated partners may suffer higher opportunity costs, these results may reflect the fact that these parents hold good job positions that provide complementary wage replacement benefits in addition to those afforded by the government.

Our analysis shows that among parents who took leave following the birth of a child, the percentage of fathers who received wage replacement benefits was much higher in Quebec— eight fathers out of 10, compared to only two out of 10 elsewhere in Canada. This result is undoubtedly linked to the existence of non-transferable paternity paid leave in Quebec and the eligibility of self-employed workers in the Quebec plan. However, whether the result also can be linked to Quebec's higher wage replacement rate remains open to investigation, given that Marshall (2008) has previously observed that even before the Quebec Parental Insurance Plan was introduced in 2006, Quebec fathers were more likely to take paid leave than those residing outside the province (although the gap was not as large as we find in our

research). The introduction of designated paternity leave thus adds greatly to the already higher percentage of Quebec fathers who take paid leave.

Our study is not without limitations. The first is that the GSS did not ask respondents about their partners' incomes and occupations. This lack of data, along with the relatively large number of respondents who did not report their personal and household incomes or who indicated only pre-specified categories, resulted in somewhat imprecise measures of couples' financial resources. Second, it is possible that the characteristics of respondents and their partners (e.g., sharing of household tasks), which were measured at the time of the survey, may not accurately reflect the parents' situations at the time of the birth/adoption of their children (e.g., in cases in which respondents had more than one child in the five years prior to the survey, the questions referred to the most recent birth). Third, the lack of information on type of leave plan chosen by Quebec parents—that is, basic or special—made it impossible to control for the duration of reserved paternity leave (3 or 5 weeks) that fathers used and the duration of parental leave (25 or 32 weeks) open to both parents. Undoubtedly, this brings some level of imprecision to our analysis.

Our study has policy implications. First, although Quebec's non-transferable paid paternity leave has been successful in increasing significantly the number of fathers taking leave, it has not translated into an increase in the time the fathers spend with their newborns and has resulted in only a minimal reduction (average of 2 weeks) in length of mothers' paid leave. If the aim of the Quebec government in introducing reserved paternity leaves is to increase both women's participation in the workplace *and* their positioning in the workplace, this result points to the need to extend the duration of reserved paternity leave rather than the duration of parental leave which, as our findings show, are still used predominately by mothers. Accordingly, the new Canadian federal initiative to extend the period during which parents can receive benefits from 12 months to 18 months, but at a lower income replacement rate, appears ill advised. Additional programs and policies, such as the provision of universal and affordable daycare services, also are needed if we wish to facilitate the return of mothers to employment after the birth of their children (Keck and Saraceno 2013). The existence of such a program in Quebec since 1997 is perhaps in part linked to the modestly shorter paid leaves that mothers take in this province. To promote further gender equality, the federal government should pursue further investments in improving the accessibility and affordability of daycare services in the other provinces, as announced in a recent budget (Government of Canada 2017).

Research from Nordic countries suggests that the positive potential of paternity leave on mother's labor force attainment will be realized only if mothers significantly reduce the amount of time they spend outside the labor force and fathers significantly increase the lengths of their leave (Einarsóttir and Pétursdóttir 2009). Greater use of leave by fathers, for longer durations, is associated with mothers' earlier return to work and could help reduce statistical gender discrimination, that is, employers' incentive to hire and invest in men over women. In such a scenario, it is sensible to ask: If lengthy maternity leave is linked to mothers' income penalties, can lengthy paternity leave have similar negative effects on men's incomes? Research on this topic has been inconclusive. Cools et al. (2015) and Johansson (2010) found that the implementation of paternity leave in Norway had no significant effects on



father's earnings. However, although Rege and Solli (2013) show that the implementation of paternity leave resulted in a 1–3% decrease in fathers' earnings, they also found that the drop was consistent with fathers' increased involvement in the home and was not the result of statistical discrimination or human capital depreciation. To our knowledge, no studies have examined whether the income losses suffered by fathers were counterbalanced by the income gains of mothers. Clearly, further research is needed in this area.

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