

Who takes care of the children?

Couples' workplace situation and their division of parental leave

Vem tar hand om barnen?

En studie av sambandet mellan föräldrars arbetsplatssituation och pappors användning av föräldraledighet

Magnus Bygren
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Summary

This study examines how parents' workplace situation affects their decision on how to divide their parental leave. We used parental leave-taking data for a large sample of dual-earner couples who had children in 1997. The results indicate that fathers shorten their parental leave if they work in the private sector, if they work at workplaces with few employees, and that fathers appear to be influenced by the leave use of other fathers in the workplace. Mothers' workplace situation appears to be less important for the division of leave. The results point to the importance of actors other than parents (such as employers) for understanding the gender-based division of childcare.

Svensk sammanfattning

Den här studien undersöker hur karakteristik på föräldrars arbetsplatser påverkar deras beslut om hur de delar föräldraledigheten emellan sig. Vi använder ett stort material som bygger på registerdata för alla anställda och bosatta i Stockholms län under 1990-talet. Vårt urval består av de män som får sitt första barn 1997 och vi undersöker dessa mäns föräldraledighetsuttag till och med 1999. Resultaten visar att de nyblivna papporna tar ut mer ledighet om de arbetar på arbetsplatser i offentlig sektor, arbetsplatser med många anställda och om män tidigare har använt föräldraledighet i stor utsträckning. Mammans arbetsplatssituation verkar ha mindre betydelse för hur mycket föräldraledighet pappan använder, men män till kvinnor anställda på kvinnodominerade arbetsplatser tar ut mindre föräldraledighet. En möjlig förklaring till detta är att i dessa fall är kvinnan angelägen om att använda föräldraledigheten. Resultaten visar att det finns ett samband mellan arbetsplatsfaktorer pappors föräldraledighetsuttag och att det kan finnas både hinder och uppmuntran till ett stort uttag. Resultaten leder även till slutsatsen att det är viktigt att ta hänsyn till mer än individuell karakteristik för att förstå vad som påverkar fördelningen av föräldraledigheten.

Introduction

“Do you spend time with your family? Good. Because a man that doesn't spend time with his family can never be a real man.” Don Corleone

In an international perspective, Swedish family policy may be seen as both gender-neutral and child-friendly, as parental leave is directed to both mothers and fathers, and as it amounts to over one year of leave. Thus, if a Swedish man wants to follow the advice of Corleone, he certainly has ample opportunities to do so. However, both traditional gender roles and economic incentives reinforce a highly skewed division of leave between parents. The greater part of parental leave may be divided as the parents choose, and it comes as no surprise that mothers use the large majority of parental leave days. That the division of parental leave is heavily skewed in most couples has been a matter of public debate and political concern.

The use of parental leave clearly indicates who is responsible for day-to-day childcare during the first 1 to 2 years of a child's life. It is, thereby, a useful test case of how parents divide the responsibility for the direct care of their children. Swedish parental leave insurance is a rather unusual social benefit in that the main part of it can be transferred between individuals, i.e. parents of the same child. As such, the division of leave can be seen as an outcome of a negotiation leading to a common decision in the family. Mothers normally use the greater part of the parental leave, but there are variations in the pattern of how leave is shared, both between couples and over time. There are couples who divide the leave equally, and over time the division of leave use has become more equal. A closer look at the possible sources of this variation may give us insights into how couples' decisions on how to divide their childcare come about. Although parental leave insurance is highly specific to the Swedish (Nordic) welfare state context, choices concerning its use reflect phenomena that are almost universal in modern societies: how to divide the responsibility of childcare between parents, and the trade-off between work and family. Studies of parental leave use have, thereby, the potential to increase our general understanding of the gender-based division of childcare.

Earlier studies have found that individual characteristics of mothers and fathers, such as income, education and work experience, are associated with how leave is divided between parents. However, factors other than individual characteristics are likely to influence this division, as negotiations on the division of parental leave are carried out in a situation in which other actors are influenced by the outcome. Indeed, one of the main explanations for why men do not use a larger share of the leave is that they find it difficult to be absent from their workplaces (Brandth & Kvande, 2001, 2002; Haas, Allard & Hwang, 2002; Näsman, 1992). Absence in the form of parental leave (or other forms) creates administrative problems and other costs for both employers and colleagues. Therefore, one would expect factors at the workplace level to affect the cost and benefit calculation parents, implicitly or explicitly, carry out before making a decision to divide the leave between them.

We presently know very little about whether workplace factors actually influence the division of parental leave between parents. To our knowledge, no large-scale studies covering all sectors of the labor market have investigated the variation in leave use between workplaces or between employers with different attitudes toward fathers' use of parental leave. Much of the research has relied on self-

reports of parental leave use and the reasons for it, whereas studies on actual leave-taking are scant. In this study, we extend previous research on the division of childcare between parents in that we explicitly consider how the workplace context of both parents affects the division of parental leave between them. We argue that high opportunity costs of taking parental leave (economic and non-economic) for one parent create an opportunity for/pressure on the other parent to take a longer leave than would otherwise be the case. If the demands from one parent's workplace lead to a situation that makes it difficult for employees to combine their work with family responsibilities, this would normally put pressure on the other parent to take a longer parental leave. We also hypothesize that parents are influenced by other parents' parental leave-taking in their workplaces. We test these propositions using a large sample of dual-earner couples that became parents in 1997. We next briefly describe the Swedish setting and thereafter introduce our arguments and hypotheses on the division of parental leave between couples. Thereafter, we describe the data and our empirical analysis of it. Finally, conclusions are drawn from the analyses.

The Swedish parental leave policy

The Swedish parental leave policy was introduced in 1974 and was one of the political reforms that caused transformation from a society based on a male-breadwinner model, to a society based on a dual-earner model. Other important factors in this transition were the introduction of individual taxation of married couples and the expansion of public childcare (Hirdman, 1998). Both ideological reasoning and a large demand for (female) labor were reasons for this transformation. From the beginning, parental leave was directed at both parents, to share between them as they saw fit. The benefits imply no direct cost to the employer and cover all parents permanently residing in Sweden.

Parental leave was originally 6 months, but the length of the leave was extended in steps during the 1980s until it reached 15 months in 1989. The leave can be used up until the child's 8th birthday. In the 1970s and 1980s, the benefits during parental leave amounted to 90 percent replacement of earlier income up to a relatively high ceiling. During the 1990s, the income replacement was decreased in steps to 75 percent of earlier earnings, but raised again to today's 80 percent. Parents with no earnings before childbirth receive only a low flat rate. During the 1990s, the flat rate was equivalent to 8 USD a day. The large difference in benefits depending on whether the parent worked before the child's birth implies that there is a strong incentive to postpone childbearing until young men and women are established in the labor market, especially women, who take the large majority of the leave (Sundström & Duvander, 2002). The parental leave policy also gives incentives for women to return to work after the leave (Rönsen & Sundström, 2002). Parental leave implies that a parent on parental leave does not formally have to exit the labor market, and job security is guaranteed during the parental leave (For details on the Parental Leave Act, see Ministry of Industry, Employment and Communications, 2001, and for details on the Family Policy, see Ministry of Health and Social Affairs, 2003).

Fathers used a very small share of parental leave during the 1970s, and this share has thereafter increased slowly to 18 percent of leave days in 2003 (see Figure 1). The skewed division between men and women has been a matter of political concern, and as a result, in 1995 one month of the parental leave was reserved for each parent. This meant that it was impossible for one parent (i.e., the mother) to use the whole leave period, but the other parent had to use one

month for it not to be forfeited. After the introduction of this use-or-lose “daddy-month,” the share of fathers who used the leave increased. Among fathers to children born in 1993, 51 percent used any leave days before their child was four years old, and among fathers to children born in 1996 this percentage had increased to 77 percent (Nyman & Pettersson, 2002). However, the mean number of days used by fathers decreased, perhaps due to an increase in less motivated fathers using the parental leave (Sundström & Duvander, 2002), or perhaps because a norm had been established for fathers to use about one month of leave but not more (Nyman & Pettersson, 2002).

Evidently, the share of parental leave that fathers do not use, mothers normally use. There are almost no mothers in Sweden who do not use parental leave and the absolute majority use at least 6 months. Very few children are home with a parent on parental leave for a shorter time than one year and the mean length of parental leave is 16 months (Berggren, 2004).

One goal of the Swedish parental leave policy is to encourage gender equality in the labor market, but it is hard to definitively establish such an effect of the policy. In a comparative perspective, countries with paid leave have higher female labor force participation rates, especially for women in childbearing ages, but they do not have smaller gender gaps in wages (Ruhm, 1998) or less gender-segregated labor markets (Nermo, 1999). One possible gender unequalizing effect of generous parental leave policies is that long-term leave periods encourage labor market detachment and lead to statistical discrimination of women, as they use the lion’s share of the leave. This problem was discussed when the leave policy was introduced, and seems to be at hand in countries where long-term (two- or three year) leaves are available (Gornick & Meyers, 2003). However, so far studies have not proved that the length of stay outside the labor market in connection to childbirth is detrimental to Swedish women’s careers (Albrecht, Edin, Sundström & Vroman, 1999; Jonsson & Mills, 2001).

Furthermore, it has thus far been hard to establish any gender equalizing effects of fathers taking a longer leave. The introduction of the daddy month made more men use the parental leave, but did not appear to influence the gender-based division of another part of the parental leave policy, namely the right to absence from work to care for sick children (Ekberg, Eriksson & Friebel, 2004). Studies by Olah (2001, 2003) show that there is an association between fathers’ use of parental leave and a lower divorce risk as well as a higher propensity for a second birth, but these associations are not necessarily indications of causal relationships; they may be a result of unobserved characteristics of couples. Another goal of the Swedish parental leave policy is to promote a more active fatherhood, with the intention to create stronger bonds between fathers and their children (Hobson & Morgan, 2002), which, incidentally, coincides with fathers’ own motives for taking a more active role in their children’s upbringing (Björnberg, 1998).

What influences the division of parental leave?

From other studies, we know that one of the most influential predictors of the division of leave is the father’s income (Nyman & Pettersson, 2002; Sundström & Duvander, 2002). The fathers’ share of the leave increases with income, up to the ceiling of the insurance. Fathers with high incomes seem to consider themselves able to afford taking the leave. However, because the replacement is zero

for income earned over the ceiling, this means a greater economic loss by using the leave, which seems to inhibit fathers' use. The ceiling is likely to have played an increasingly important role during the 1990s, as a larger proportion of parents, especially fathers, now have an income over the ceiling (Palme et al., 2002).

The mother's income also has a positive effect on the father's share of the leave, most likely because mothers with high earnings are more inclined to return to work earlier (Sundström & Duvander, 2002). Families in which the mother has high income may also be able to afford the loss of income caused by the father's leave use.

It also seems that both fathers' and mothers' educational levels have a positive impact on a more gender-equal division of parental leave (Ahrne & Roman, 1997; Nyman & Pettersson, 2002; Sundström & Duvander, 2002). These findings may be explained by more egalitarian gender roles among highly educated parents, but it may also be related to the parents' work situation. Fathers' high education may reflect a work situation in which he has more flexibility and thus is more able to use the leave without receiving negative consequences. As mothers generally are on parental leave for a longer period (also highly educated mothers), their reasoning may be the opposite, and they may thus be more inclined to limit the absence from work to uphold their position at work and not incur future wage reductions caused by long absence. Thus, high education may lead to opposite effects for women's and men's leave use, as their points of departure are so different.

Regarding the influence from the workplace on the division of parental leave, we know less. We know that there are variations in employers' attitudes toward fathers using parental leave (Haas & Hwang, 1995), and we know that both fathers and mothers often claim that it is the father's work situation that keeps him from using a larger part of the leave (Berggren & Duvander, 2003; Edlund, Johansson, Linderöth & Ståhl, 2000; Näsman, 1992,). Fathers also mention that the attitudes of their employers matter for their parental leave use (Haas et al., 2002). However, Bekkengen (2002) finds in qualitative interviews that fathers may claim that the work situation is the reason for not using the parental leave, even when this in fact is not crucial for their decision.

From the father's perspective, the size of his share of the parental leave may be seen as the outcome of two bargaining and adjustment processes, one between him and the mother, and one between him and his workplace (Sundström & Duvander, 2002). The mother may also be involved in a bargaining process regarding the size of her leave at her workplace, but as almost all mothers take a relatively long leave, her absence is probably less negotiable (Bekkengen, 2002; Brandth & Kvande, 2002). The result of these simultaneous processes of influence on the division of parental leave depends on characteristics of the father, the mother, and their two respective workplaces.

Because there is a fixed amount of time to use for parental leave, the father's parental leave-taking is affected, of course, by the mother's and vice versa. The division of parental leave reflects the outcome of an explicit or implicit negotiation between the parents concerning how to share the benefits. In one sense, the characteristics of the mother and the father as well as of their workplaces indicate what costs and benefits parental leave use implies for the mother and the father. Seen as the outcome of a negotiation between parents, it follows that the decision on how to share leave is dependent not only on individual opportunity costs and benefits faced, but also on how large these are relative to the partner's. For example, a mother with a high cost of leave-taking may take a relatively long leave anyway, as the couple assesses the cost for the father to be even higher.

Generally and undeniably, the interest of both employer and colleagues are in conflict with parents' wishes to use parental leave. Parents' absence may cause production loss, a cost for recruiting of a replacement worker, more work for colleagues, and other negative consequences. Negative consequences for the employer and colleagues are applicable both to mothers' and to fathers' leave use, but as fathers' leaves are more negotiable than mothers', it is likely that fathers' leave use is more easily influenced by the employer as compared with that of mothers. Normally, fathers choose whether to use the leave, and if they choose to, when and how long, whereas mothers only choose how long their leave will be.

What influences from the workplace can then be expected? First of all, different employers may offer more or less favorable terms during parental leave. Most importantly, employers can pay extra compensation, in addition to the general social insurance. For example, some employers, e.g. in the state sector, cover income loss over the ceiling at the same level as income under the ceiling (presently up to 90 percent), and some employers compensate up to 100 percent of the earlier income during leave.

Depending on how common long absences are at the workplace, routines for handling them will also be established. Routines and experience with absence will facilitate the leave use and thus enable parents, especially fathers, to use leave. Workplaces may also be more or less vulnerable to particular employees' absences. Employees are easily replaced at some types of workplaces, and at others absences can be covered by colleagues. This is not the case at all workplaces.

It is further likely that a norm for the length of an acceptable leave has been established at different workplaces. This norm will be dependent on how common it is for employees to use parental leave and on what is considered normal. Needless to say, because the average length of leave differs widely between men and women, this norm will differ for men's and women's parental leave use at the same workplace. As the workplace is clearly affected by the employees' use of parental leave, it is likely that a strong norm for how parental leave should be used exists. There are probably negative sanctions against more use than is common, both from the employer and colleagues. For fathers, it is also likely that leave use is encouraged at workplaces where it is common for fathers to use leave. Mothers who choose to use a very short leave strongly contradict the norm and are likely to suffer repercussions against this behavior. Regarding fathers' leave use, a snowball effect may be initiated by favorable terms, which may increase their leave use and which will also attract a certain kind of employee. This, in turn, will affect the norm for length of leave, which, in turn, will influence other fathers' leave positively.

It is also possible that certain employees seek out certain kinds of employers. Men who are interested in the possibility of using the parental leave, and also of having other kinds of flexibility in relation to family life, are likely to search for jobs at workplaces where this is possible. A selection process will then enforce variation in the average length of leave between different employers. For example, men in female-dominated professions have a larger propensity toward using parental leave (National Social Insurance Board, 1993). These men differ from other men in their gender-atypical choice of profession and, thus, may be expected to be gender-atypical in other kinds of choices, such as their use of parental leave. The norms for how much parental leave should be used may thus largely originate from the values and preferences among employees, and not only be "initiated" at the workplace. Hence, different types of mechanisms at the workplace may lead to a certain kind of pattern of parental leave use being reproduced among employees.

Generally, one would expect fathers' parental leave use to be (i) decreasing with all kinds of costs (economic and non-economic) they themselves face when they are on parental leave, and (ii) increasing with all kinds of costs their partners face while on parental leave. This reasoning leads to the hypotheses stated below concerning characteristics of mothers' and fathers' workplaces that may influence fathers' parental leave use. The hypotheses concern the father's share of the leave, as the division of leave in most cases is so skewed that it would be misleading to write about potential impacts toward a gender-equal division of leave. For the same reason, we have also chosen to empirically analyze father's leave use.

Hypotheses

We have formulated four hypotheses on how characteristics of the father's workplace may affect the father's use of parental leave, and four hypotheses on how characteristics of the mother's workplace may affect the same outcome.

As the public sector is not driven by profit, employee absence that causes production loss, delays, modified or restricted activities will not threaten the enterprise to the same extent as it would in profit-driven businesses. The public sector, therefore, may be less vulnerable to parental leave use among its employees. Furthermore, within all sectors, contracts concerning better conditions during parental leave exist. Perhaps the most general contract covers all state employees. The additional compensation from the employer is likely to make employees more willing to use parental leave. Also fathers who are interested in having a work life that is flexible in relation to family life may be selected to work in the public sector. Our first hypothesis is therefore:

H1. A father's propensity to use parental leave will be greater if he works in the public sector.

At female-dominated workplaces there may be fewer obstacles for fathers to use parental leave. The employer at female dominated workplaces may be more used to absences caused by parental leave, and also to other ways in which employees adapt their working life to the family situation. At these workplaces the attitudes toward parental leave may also be more positive. There may also be a selection into female dominated workplaces of men who are more positive toward taking an active part in raising their children. This leads to the following hypothesis:

H2. A father's propensity to use parental leave will be greater if he works at a female-dominated workplace.

At workplaces with many employees, a father's absence may be more easily arranged than at a workplace with few employees. Replacements within the organization may be easier to find, and other kinds of flexibility should be more possible. Hence, our third hypothesis:

H3. A father's propensity to use parental leave will be greater if he works at a workplace with many employees.

If long leave-taking is common at the workplace, routines for handling the absences may also be established to a larger extent. Considerable leave-taking may also be a reflection of employer-specific benefits paid for during the parental leave. The behavior of other men at the workplace arguably also reflects a norm

concerning what is considered accepted parental leave use in the workplace. Hence, we put forth the following hypothesis with regard to how the father's workplace may have an impact on his leave use:

H4. A father's propensity to use parental leave will be greater if other men employed at his workplace have used parental leave earlier.

As is the case for fathers, one would expect that if the mother works in the private sector, her parental leave will be more threatening to the enterprise than it will if she works in the public sector. The risk of future sanctions in the form of foregone wage development and other career opportunities may be greater in the private sector, as these businesses are more vulnerable to profit loss. She will thus be more inclined to return to work earlier and share the parental leave with the father. It may also be the case that it is especially career-oriented women who end up in the private sector. Therefore we hypothesize the following:

H5. A father's propensity to use parental leave will be greater if the mother works in the private sector.

Acceptance of long parental leave is likely to be lower at a male-dominated workplace, where such leaves are not common. It is therefore possible that mothers working in male-dominated workplaces want to return to work faster and let the father use a larger share of the parental leave. Women at male-dominated workplaces normally also have other job descriptions than do women at female-dominated workplaces. It may be that women at female-dominated workplaces more often have jobs with less career possibilities and a long leave may therefore be more desired and less costly. There may also be a selection process at hand such that women who choose to work in male-dominated workplaces are more gender-atypical in their attitudes and decisions, i.e. less interested in long parental leave than are other women. This leads to the following hypothesis:

H6. A father's propensity to use parental leave will be greater if the mother works at a male-dominated workplace.

It will be harder to arrange for a mother's absence at a small workplace, and there will be less flexibility in how the leave is used. It is, therefore, more likely that, in these cases, parents will have decided how to share the leave before the child is born, giving employers a chance to arrange for this. If the division of parental leave is well considered by the couple, this extra planning may lead to fathers using a larger share of the leave. The reasons may be economical, i.e. not allowing the daddy-month to be forfeited, and fairness, i.e. that both think it is fair to share their common benefit to at least some degree. This leads up to the following hypothesis:

H7. A father's propensity to use parental leave will be greater if the mother works at a workplace with few employees.

Mothers who work at workplaces where it is usual for fathers to use parental leave may be more positive toward sharing the parental leave with the father of their children. These mothers may be affected by the general norm at their workplaces and thus be more inclined to value the father's time at home: because of gender equality, for the children's contact with their father and also for the father's own sake. We will thus test the following hypothesis:

H8. A father's propensity to use parental leave will be greater if other men employed at the mother's workplace have used parental leave earlier.

Data

We use register data from Statistics Sweden to test our hypotheses. The data are longitudinal and comprise all residents of Stockholm County (Stockholms län) during the 1990s. Even though this is not a random sample of Swedes, we see no reason to believe that the circumstances were significantly different for parents in Stockholm compared to the rest of the country, and we thus claim that the results are applicable to Swedish fathers in general. Fathers' parental leave use does not vary to any large extent between regions in Sweden. More importantly, we see no reason to believe that the association between workplace factors and parental leave use, stated in the hypotheses and tested in the models, would be different in Stockholm and the rest of Sweden.

Among other things, information on labor market status, workplace affiliation, education, household composition, yearly earnings and yearly benefits from parental leave are included. For more information on the dataset, see Statistics Sweden (2002).

A sub-sample of 10,042 men who became fathers for the first time in 1997 was drawn. To enable our empirical analysis, we had to make some selections. For these men and their partners, we need information on individual-level variables such as income and education, as well as workplace-level information on the previous parental leave-taking of men, the percentage of women among all employed and so on. A condition to be included in the sub-sample is therefore that both the father and the mother were employed and had a workplace affiliation in any of the years 1997 - 1999 (when we measure parental leave-taking), and that at least one man who was employed in their workplace was the father of a small child in the years preceding 1997. For 3,755 fathers (and the same number of mothers), we had information on all variables necessary for the analysis, and they therefore constitute our final sample (see Table 1 for more details). It should be noted that as we analyze the impact of workplace factors on the division of parental leave, we restrict our sample to couples in which both the mother and the father are employed and thus can be connected to a workplace. It is, thus, a selected sample of dual-earner parents with a relatively stable attachment to the labor market.

The dependent variable is a measure of the length of the father's parental leave during 1997 - 1999 and is based on yearly information on earnings and parental leave benefits. The parental leave benefit amounts to 75% of previous earnings in 1997 and 80% of previous earnings during 1998 - 1999. It is, thus, possible to calculate the length of parental leave in months for a particular father during the 2 - 3 years following childbirth, accordingly:

$$\text{Parental leave} = \begin{cases} \sum_{j=1997}^{1999} \frac{\frac{B_j}{pct_j}}{I_j + \frac{B_j}{pct_j}} \times 12 & \text{if } \left(I_j + \frac{B_j}{pct_j} \right) \leq c_j \\ \sum_{j=1997}^{1999} \frac{\frac{B_j}{pct_j}}{c_j} \times 12 & \text{if } \left(I_j + \frac{B_j}{pct_j} \right) > c_j \end{cases}$$

where B_j is parental leave benefits paid to the father year j and I_j is earned income for the father year j . B_j is divided by the replacement level during the year, pct_j to get the income during the parental leave had he been working. It is necessary to make separate calculations for men who had earnings above the ceiling, c_j , to avoid underestimating their parental leave length. The ceiling was SEK 272,250 in 1997 and SEK 273,000 (approximately USD 40,000) for the years 1998–1999. This calculation gives us a figure for the parental leave use during the first 2–3 years following childbirth. The largest part of fathers' share of parental leave usually is used up during the child's second year, although parental leave can be used up until the child's 8th birthday. Thus, we do not estimate the complete length of parental leave for fathers, but the father's share during the first, and normally major, period of parental leave. This restriction is preferable, as it means that the measure includes childcare of fathers as sole caregivers, whereas later parental leave use may include also less intensive childcare where also another caregiver (i.e., the mother) is present. In Figure 2, the distribution of used parental leave days is graphed. One can readily see that it is skewed to the left. Although most fathers use *some* parental leave, few take a leave longer than a month. The independent variables are constructed as follows.

Background variables: We measured *education* in years of formal education. As a measure of income, we used the individual's *earned income* in the year before they had a child, in 1996. In this way, we avoided conflating this measure with the dependent variable, which has an automatic negative relationship with the dependent variable following childbirth. We used a continuous measure of income, where a unit change is equal to SEK 10,000, and used squared terms of it in the regressions to allow for non-linearities. A small number of individuals with extreme (high) incomes were top-coded to have SEK 600,000 in yearly income. We measured *seniority* at the workplace in years since 1990. We also included the *age* of the individual in 1997, in years.

Characteristics of the workplace: We categorized the *sector affiliation* of the workplace using the dichotomy private – public. We used a continuous measure of *the percentage women employed* at the workplace, ranging between zero and one. We defined *workplace size* as the logged number of employees at the workplace. We measured *earlier parental leave-taking* at the workplace in the same way as the dependent variable, but for all men who were fathers of small children during this period. For each workplace during 1990 - 1996, we computed the average number of months of parental leave per year for those who were fathers of children below or equal to the age of four. Because our final sample consists of first-time fathers in 1997, we avoid the possibility of capturing correlations between the same father's parental leave, for children of different birth order. The means and proportions of all the variables are presented in Table 2.

We estimated tobit regression models to test the relationship between the fathers' parental leave use and the independent variables. We also estimated an OLS model, a multinomial logit model, and an ordered logit model (the latter two with a trichotomized dependent variable) to check the robustness of the results. The results of these additional regressions were very similar to those reported below.

Our sample is not random, but can be viewed as a cross-sectional total sample fulfilling our selection criteria (see Table 1). Therefore, it is less appropriate to interpret the significance tests of the coefficients as indicating the probability of statistical correlations given a null correlation in the population. However, we do report the results of the significance tests, but caution against interpreting them in the usual way. The sample is in our case the population, and the significance tests should therefore be seen more as measures of the degree of dispersion around the regression lines obtained in this population.

Results

Estimates from bivariate tobit regressions and a multivariate tobit regression are presented in Table 3. The first hypothesis, proposing that fathers working in the public sector will use more parental leave, is tested by the dichotomous variable indicating whether the father's workplace belonged to the private or public sector. It is clear that fathers working at workplaces belonging to the private sector use less parental leave, both in the bivariate and the multivariate analyses. The hypothesis is thus supported.

It is also clear that fathers working in female-dominated workplaces have a greater propensity to use parental leave, as indicated by the bivariate analysis. However, this effect is weaker and non-significant in the multivariate analysis. Additional analyses (not presented) showed that the change in the association is a consequence of the fact that female-dominated workplaces are often large and more common in the public sector.

We also find that men employed in larger workplaces use more parental leave. Although the coefficient decreases in size in the multivariate analysis, it remains statistically significant. The finding supports our third hypothesis, indicating that larger workplaces are less vulnerable to employees' absences, and that it, therefore, is easier for men to take parental leave from such workplaces.

The fourth hypothesis, suggesting that earlier parental leave use at the workplace will increase the father's propensity to use parental leave, is also supported. We find that our measure of earlier parental leave use by fathers at the workplace is positively associated with a father's parental leave length. This may reflect a norm concerning what is desired and accepted behavior regarding parental leave, but it may also reflect informal support for a family-friendly working life at workplaces with high earlier leave-taking.

We thus find the expected effects of fathers' workplaces on their parental leave use. If the division of parental leave is seen as the outcome of negotiations between the mother and the father, then the father's workplace factors are only one of two important influences. We have hypothesized, therefore, that characteristics of the mother's workplace will correlate with the division of parental leave, mainly, in the opposite directions as compared to the father's workplace. The reason is that her costs of absence will influence her willingness to share leave with the father. If her costs of leave at the workplace are high, the father's parental leave use should be positively influenced. Thus our fifth hypothesis states that if the mother is employed in the private sector, the father will use more parental leave, as her costs of absence are higher than if she is working in the public sector. This hypothesis receives no support. On the contrary, in the bivariate analysis there is instead a negative association, i.e. fathers with spouses working in the private sector take shorter parental leave compared with other fathers, but this association becomes negligible (and non-significant) in the multivariate analysis. It should be mentioned here that a short leave for the father does not necessarily mean a longer leave for the mother, as some leave-days may be saved for later use and some leave may even be forfeited. The negative association between fathers' parental leave and mothers' work in the private sector may mean that both the mother and the father use a short leave period.

Nevertheless, if the mother works in a female-dominated workplace, the father has a lower propensity to use parental leave. Women who work in female-dominated workplaces seem to take a larger part of the parental leave, compared with other women. Our sixth hypothesis, predicting that fathers' propensity to use

their leave is inversely related to the share of women in the mothers' workplaces, is therefore supported.

Regarding the size of the mother's workplace, our expectation was that the father would have a higher propensity to use parental leave if the mother worked at a workplace with few employees, as her absence then would be more costly and perhaps harder to arrange. However, the bivariate analysis shows an effect in the other direction, and the multivariate analysis shows that there is a non-significant association between the size of the mother's workplace and father's parental leave use. Thus, our seventh hypothesis receives no support.

Furthermore, there seems to be no substantial association between the earlier parental leave use of fathers at the mother's workplace and the parental leave-taking of the father. We expected that the norm concerning accepted parental leave use would also affect the mother's view on a fair division of parental leave between herself and her spouse, but this does not seem to be the case.

In general, we find less support for the hypotheses predicting that the mother's workplace will influence the father's parental leave use, compared to the hypotheses concerning the influence of the father's workplace. Lastly, we find that the background variables show the expected patterns or no effects. Notably, we find in the multivariate analyses that the father's education has no association, but that there is a positive association between the mother's education and the father's parental leave length. There is also a negative association between her seniority at the workplace and the outcome, indicating that she can afford a longer absence if she has worked at the same workplace for a long time. Regarding income, we find that fathers' leave use increase with income up to the ceiling, after which it decreases. The regression curve has its maximum at a yearly income of SEK 245,000, which is just below the ceiling of the insurance, above which the replacement level does not increase with previous income. This pattern most likely results from the fact that his costs for the parental leave are then considered to be too high. Interestingly, we find the exact mirror effect of the mother's income. A father's length of leave decreases with his spouse's income, until her income hits the ceiling of the insurance, after which it instead increases. This indicates that mothers who have an income above the ceiling of the insurance also restrict their parental leave as a response to the economic disincentives set up by the income replacement ceiling.

As we were interested in the negotiations between the parents regarding how the leave is divided, we also tested interactions between the mother's and the father's workplace factors. With one exception, none of the interaction tests indicated any substantial combination association between the mother's and the father's workplace factors and father's parental leave use. The exception is reported in Table 4. With an interaction term between fathers' earlier leave use at the mother's and the father's respective workplaces, we find that it is the combination of the mother's and father's workplaces that seems to be important here. If both the mother and the father work at workplaces where fathers' earlier parental leave use has been high, then the father will use parental leave to a much greater extent, as compared with cases where just one of the parents work at this kind of workplace. If only the parental leave use of men at one workplace is high, this fact seems to be "silenced" when the decision on how to divide the leave is made.

Discussion

The division of the Swedish parental leave between men and women is an unusually clear-cut example of how men and women make trade-offs between work and family. In this study, we extend previous research on the division of childcare between parents in that we explicitly consider how the workplace context of both parents may affect the division of parental leave between them.

Parental leave indicates a kind of housework that is often desired, namely childcare. It may not be, however, equally desired by all mothers and fathers. One reason it may not be desired is that it implies absence from labor market work. Parents may meet varying degrees of obstacles to their use of parental leave, not least depending on the character of their workplace and the kind of work they are doing. We found that fathers working in the private sector, at small workplaces, and in male-dominated workplaces are less likely to use the parental leave. We also found that men who work at workplaces where other fathers have not previously used a great deal of parental leave are less likely to use it. We therefore conclude that the father's parental leave use varies depending on the characteristics of his workplace. This may be a causal effect implying that fathers choose to limit their parental leave-taking if they are likely to face costs associated with leave-taking at their workplace. However, we cannot rule out the possibility that this may be a result of a selection effect, in that fathers who are interested in adjusting their work life to the family situation may be self-selected into certain workplaces. These are probably the same fathers that want to use parental leave.

Regarding the mother's workplace, we found less variation. The only strong association we found was that if the mother is working in a female-dominated workplace, then the father uses less parental leave. This may be because her costs of absence are low in these workplaces. Women at male-dominated workplaces may be more called into question if they take a long parental leave and may thus have difficulties in sustaining their work position. Also, a long leave may be more desired by women at female-dominated workplaces, not least due to the types of tasks female-dominated jobs often involve.

Both men and women seem to be influenced by the earlier parental leave-taking of men in their respective workplaces, provided that leave-taking was similar in their spouses' workplaces. It seems to be the case that the influence of others in the parents' respective workplaces has to be confirmed by the spouse in order to affect the decision on how to divide the leave between them. This underlines the complexities of the contextual nature of this kind of decision. If a father works in a "family-friendly" workplace, this apparently does not necessarily lead to a more equal distribution of parental leave as long as the mother of his child does not share his experiences of men taking a longer parental leave in her workplace. This suggests that one parent's experience of the norm needs to be confirmed by the partner's experience of this same norm for it to have any influence on actual behaviors.

We consider our results to be affirmative of our argument in the background section: that high opportunity costs (economic and non-economic) of taking parental leave for one parent create an opportunity for/pressure on the other parent to take a longer leave than would otherwise be the case. The results imply that if the labor market situation of one parent is such that it is costly to combine his/her work with family responsibilities, the other parent will be put in a position where he, but more often she, is under pressure to take a longer parental leave.

Even if parental leave is considered a privilege and something to strive for in Sweden, one should not neglect the gender aspect regarding who has predominance in deciding how the leave should be divided. Women take the great majority of the leave, and women normally have the final say on how it should be divided in couples (Berggren & Duvander, 2003). This predominance is reinforced by gender differences in the labor market situation. Women have been found to have little to lose by taking a long parental leave, as opposed to men (Albrecht et al., 1999). Therefore it is understandable that the father's workplace situation influences the decision on how to divide the leave more than does the mother's workplace situation.

Another reason for fathers' workplaces to matter more than mothers' is the prevalent gender difference in the level of leave use. Fathers use on average around one to two months of leave, whereas mothers use around one year of leave. The marginal cost of another month of leave is arguably much greater at low levels of leave use than at high levels of leave use. To arrange for two months of leave, instead of one month, may be much harder than to arrange for 13 months rather than 12 months of leave. Importantly, it is not possible to see the division of parental leave as a gender-neutral question. Because of the initially skewed division of parental leave, the workplace and individual factors influence the division of parental leave in gender-typical ways.

Can the results from this study on parental leave during a child's first years be generalized to the division of childcare in a broader sense? The gender-based division of childcare more generally is probably less skewed than is the gender-based division of parental leave (cf., Sayer, Bianchi & Robinson, 2004). However, the trade-off between work and childcare is probably, if not as straight forward as the trade-off between work and parental leave, an ever-present element in most modern families. Our belief is, therefore, that these results do apply more generally, in that actors other than parents, such as employers, are important for understanding the gender-based division of childcare, and that due consideration of the labor market situation of mothers, but perhaps even more so the labor market situation of fathers, is needed to properly understand the processes underlying this division. There is obviously more to the trade-off between work and childcare than just individual mothers and their labor market situation, and future research on the gender-based division of childcare would benefit from a focus on other relevant actors in this context, i.e. fathers and the employers of mothers and fathers.

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Tables and figures

Table 1 Sample Selection Description

Selection criterion	
Fathers for the first time in 1997 residing in Stockholm County	10 042
Out of which fathers who had a workplace affiliation in any year 1997–1999	9 138
Out of which fathers who worked at workplaces where an employed man was the father of a small child 1990–1996	6 897
Out of which fathers who were living with the mother of their child in 1998	5 816
Out of which mothers who had a workplace affiliation in any year 1997–1999 where an employed man was the father of a small child 1990–1996	3 894
Complete information on all other variables for the father and mother	3 755

Table 2 Means and Standard Deviations of the Variables, by Sex

Variable	Fathers		Mothers	
	Mean	S.E.	Mean	S.E.
Parental leave-taking, months	1.649	2.229	-	-
Earlier parental leave-taking of fathers in the workplace	0.225	0.417	0.244	0.468
Percentage women in the workplace	0.359	0.220	0.591	0.216
Private sector	0.773	0.419	0.589	0.492
Log size of workplace	4.531	1.940	4.814	1.892
Seniority, years	2.822	2.602	2.686	2.337
Education, years	13.196	2.874	13.256	2.726
Age, years	32.485	4.859	30.806	4.412
Earned income, in SEK/10,000	22.053	12.408	17.536	9.284

Note: n = 3,755

Table 3 Tobit Estimates of First-time Fathers' Parental Leave Length in Months on Individual and Workplace Characteristics of Himself and the Mother

Variables	Bivariate	Multi-variate
<i>Father variables:</i>		
Works in the private sector	-0.652**	-0.312**
Percentage women in his workplace	0.726**	0.282
Size of his workplace	0.128**	0.074**
Earlier parental leave-taking of fathers in his workplace	0.244*	0.198*
<i>Mother variables:</i>		
Works in the private sector	-0.218*	-0.083
Percentage women in her workplace	-0.524**	-0.721**
Size of her workplace	0.054*	0.017
Earlier parental leave-taking of fathers in her workplace	0.114	0.093
<i>Control variables:</i>		
His age, years	0.015	0.006
His seniority, years	0.017	0.027
His education, years	0.057**	0.001
His earned income	0.049**	0.049**
His earned income squared	-0.001**	-0.001**
Her age, years	0.021*	0.013
Her seniority, years	-0.052**	-0.050*
Her education, years	0.113**	0.103**
Her earned income	-0.039**	-0.051**
Her earned income squared	0.001**	0.001**
Constant		-0.256
Likelihood ratio χ^2		214.64**

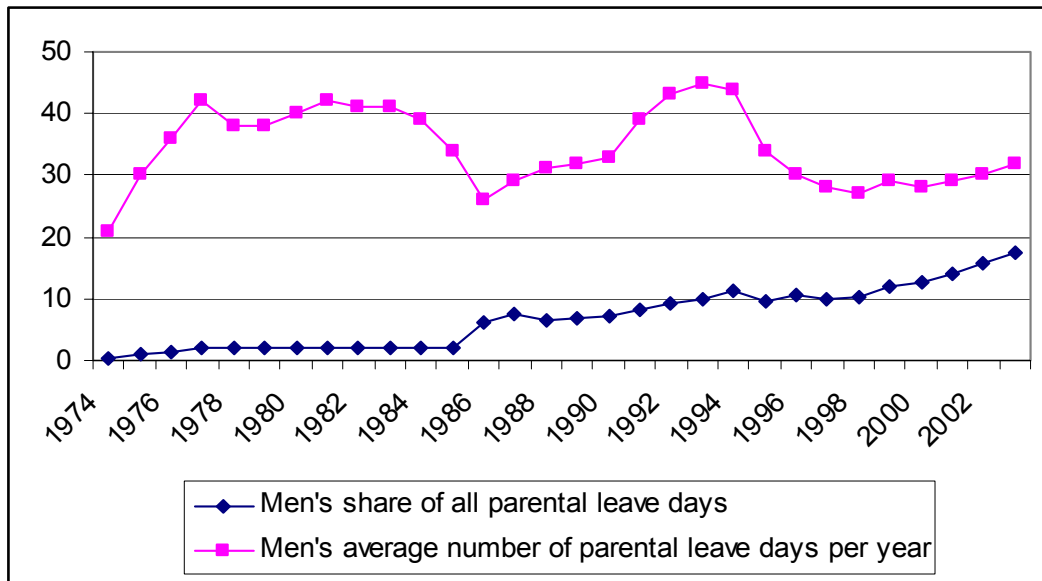
Note: 673 (of 3 755) observations left-censored at parental leave = 0
 ** p < .01; * p < .05.

Table 4 Tobit Estimates of First-time Fathers' Parental Leave Length in Months on the Earlier Parental Leave-taking in the Father's and the Mother's Respective Workplaces. The Coefficients of the Other Independent Variables are Suppressed

Variables	Coefficients
Earlier parental leave-taking of fathers in his workplace (a)	0.016
Earlier parental leave-taking of fathers in her workplace (b)	-0.045
Interaction term a*b	0.594**

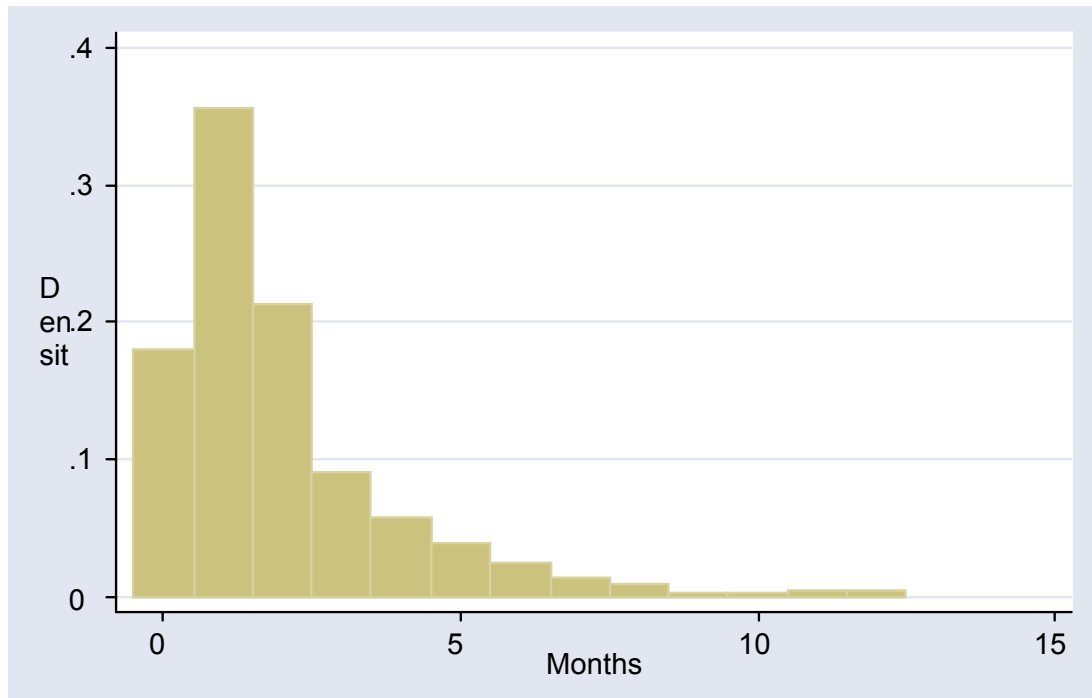
Note: 673 (of 3 755) observations left-censored at parental leave = 0
 ** p < .01; * p < .05.

Figure 1 Fathers' Parental Leave-taking in Shares of All Parental Leave Days Used and Average Number of Days Used per Father, 1974-2003



Note: Calculations using data from the Swedish National Social Insurance Board.

Figure 2 The Distribution of Parental Leave Months Used by the Fathers in the Sample



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