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The Gendering Effects of Sweden's Gender-neutral Care Leave Policy

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Abstract

The current gender-neutral care leave for care of sick children program in Sweden provides parents with a substantial number of publicly paid days per year. These are used when parents have to be absent from work to care for a sick child who cannot attend public childcare. Although gender neutral from the start, women still take the majority of days. We investigate whether the existing policy design plays a role in the division of leave. We study the income cap in the program using individual-level register data for the years 2005 and 2006. We show that there seems to be a clear effect of the income cap on the division of leave: if only one partner has an income below the cap, he/she uses the majority of days. However, analyses of a policy change that raised the cap reveal no effect on the division of leave.

Keywords

Care leave, difference-in-differences, gender, gender-neutral, gendering effects, policy effects, social policy, Sweden

1. Introduction

More than 35 years ago, at the same time as the introduction of its parental-leave system, Sweden introduced a gender-neutral care leave policy for the care of sick children (hereafter referred to as care leave). Sweden was thus one of the few countries with a care leave policy already in place when the EU Directive in 1996 required member states to entitle workers time off from work to care for a family member (Deven & Moss 2002:249).

While being developed over time, the Swedish care leave policy of today provides parents with a practically unlimited amount of care leave days - a maximum of 120 days per child per year. A doctor's certificate is needed only after eight consecutive days of illness and care. Parents with seriously sick children can, however, get an unlimited amount of days. Typically, the care leave is used on a short-term basis when parents have to leave work to stay at home to care for a child that cannot attend public childcare due to an illness. The care leave is paid at a high rate of compensation (80% of current income) from the social insurances, financed mainly by employers through payroll taxes on all employees. Income losses are compensated only up to a certain cap; no compensation is given for the part of the income above the cap. The income cap—about 24,800 SEK (~2,700 Euro) in 2005 and about 33,000 SEK (~3,600 Euro) in 2006—is relatively high in relation to the median income in Sweden of 22,200 SEK (~2,400 Euro)[1]. This study evaluates the effect of the income cap and of the policy change in 2006 that raised the maximum compensation per day. The policy change was introduced in June 2006. Another policy change in January 2007 turned the cap back to its original level.

From the start, mothers and fathers have been equally eligible for care leave. The policy has always shown all of the characteristics that are needed for fathers to use it: it is paid on a high rate of compensation, it is an individual entitlement, and it is flexible (Lewis & Campbell 2007:14). Still, at the aggregate level, the days taken are not shared equally between the parents; the division is heavily skewed towards women. In Sweden, this unequal division of the care leave has, along with the debate on equal responsibility-sharing between parents, been a matter of political concern.

One often overlooked reason for the skewed division of care leave could be the design of the care leave policy itself. Although gender-neutral in regulations, the benefits in the policy are based on labor market income. One of the most important effects and also the main study object in this paper is the income cap in the program that gives incentives to parents with incomes above the cap to avoid using the policy. Since the gender wage gap is still a reality in Sweden[2], an income-related benefit with an income cap is likely to be less economically advantageous for fathers. Thus, it is possible that a 'gender-neutral' care leave in the context of differing prerequisites in the public sphere for men and women may exacerbate gender inequality in the family.

We argue that the leave for care of sick children is an ideal case to study when focusing on the division of care days within a parental couple. First, the care leave is unplanned since one cannot control the timing of sickness. Care leave thus means that a parent without any premonition has to change his or her plans from working to staying at home to care for the sick child, a decision often taken at midnight when the sickness bursts out. Comparing this decision-making to that of the parental leave when parents can, for example, choose to take a few weeks extra leave as vacation during summer makes clear that choosing a day of care leave really means to choose one's children. Also, the care leave implies a single caregiver in that it is only given to one parent at the time and only if the other parent's main activity is work in that day or something comparable to work, such as, for example, studies. Even though the parental leave program does not allow for two parents to be at home on parental leave for the same child at the same time, it still allows for a parent to take it while the other parent is at home by some other means. The other parent could, for example, be on vacation or, in a family with more than one child, claim parental leave

for another child. The usage of care leave in a parental couple represents a clear-cut case of the couple's decision-making process when choosing between work and taking care of a child.

Methodological reasons make care leave a good case for studying division mechanisms in couples. Since children get sick repeatedly, it can be used as a means to evaluate a policy change as is done in the present study. Moreover, the leave can be taken repeatedly until the child turns 12, meaning that we can take advantage of longitudinal data. There are also no biological differences in care leave since childbearing, giving birth and breast-feeding that are connected to the uptake of parental leave no longer play a part during care leave.

This paper is divided into two parts. The first part investigates couples' distribution of care leave in the years 2005 and 2006 based on the incomes of the partners relative to the cap. Since no benefits are given for the part of the income that is above this cap, the cap could be assumed to affect distributional decisions of care leave for couples with unequal earnings. The analysis will stress the role of the eligibility regulations in the policy and only look at couples in which both partners are eligible to take leave. It will be shown that there seems to be a strong effect of the cap following the income distribution within the couple. The analysis is made possible by detailed register data, including the entire population of Sweden, which means that also relatively small subgroups can be studied.

The second part goes beyond the static relation and tries to spot the causality in the policy by assessing the effect of a policy change in 2006. The point of departure for the second part of the study is that if the unequal distribution of days found in part one was due to economic incentives in the policy, a change in these incentives should cause a distributional change in the leave days taken. The likely effect of a higher cap for couples with unequal earnings, in which the partner with earnings above the cap also claims the smallest share of the leave, would be a more equally distributed leave.

There are many benefits to getting fathers more involved in family life. Many studies in the Nordic countries have shown positive effects of paternity leave on the societal level, on the family level and on the individual level (Brandt & Gislason 2010). In the last ten years there has been an increasing interest in the child's point of view, and it has been stressed that an increased involvement by the fathers is best for the child (e.g. in that early contact with the child is associated with better contact between the father and the older child in the future, see Duvander & Jans 2009).

A lot of research has been carried out on the social policies that have been labeled "family policies" (Kamerman & Kahn 1978, 1991; Bourdieu 1996; see Neyer & Andersson 2008 for a discussion connected to demography). The parental leave (leave used after the birth of a child) and its mechanisms have been well-studied, especially in the Nordic countries (see below). This study is however concerned with the mechanisms at work in the care leave policy, a different kind of family policy that is not to be confused with the parental leave. Even though the care leave has been a requirement for all EU countries for almost 15 years, we know very little about its usage. Very few studies have been carried out on the mechanisms of care leave. Amilon (2007a, 2007b) conducted the first study on the care leave in Sweden and reported which factors might influence the sharing of the leave within households. She used a model with threat-points determined by factors such as educational level, labor market sector, income, and age and concluded that bargaining powers related to these factors affect the division of care leave between partners.

The division of leave for care of sick children could be viewed from the perspective of division of household work. Indeed, taking one day of care leave does involve childcare and traditional household tasks such as cleaning, cooking, and doing dishes. Recent research by Eriksson & Nermo (2010) shows that by comparing the division of care leave with the division of household work as reported in a Swedish survey, care leave can in fact be viewed as a proxy for the distribution of household work in general.

Even though the days of care leave in a year are much fewer then the cumulated days on which household work is performed, Eriksson and Nermo show that they are associated with each other. Given that care leave for care of sick children can be added to the list of measures of household work (see Shelton & John 1996:300-302), the results of this study have implications for research on the division of household work.

Reference could also be drawn to studies on parental leave since, to some extent, this policy option is likely to be governed by similar factors as those considered here. Several Nordic studies on parental leave involve using register data and making estimates on how mothers' and fathers' different characteristics are correlated with their use of parental leave (e.g., Duvander 2006; Bygren & Duvander 2006; Sundström & Duvander 2002; Haas 1992). These studies look at the effect of variables such as age, income, education, and different workplace conditions on parents' uptake of parental leave.

Some studies have shown that policy changes in the parental leave system can affect the behavior of parents in a more gender equal way (Ekberg et al. 2005; Eriksson 2005; Duvander & Johansson 2010). Other studies have shown that the parental leave patterns can have an effect on the reproductive behavior of parents (Hoem 1993; Andersson 2004; Andersson et al. 2006).

2. Care leave for care of sick children

The care leave for care of sick children policy was originally part of the sick leave program in Sweden. Early on it was, however, transferred to the parental leave program. Care leave is typically used when the period of parental leave is over and parents are back at work again. It is then used on a short-term basis when a parent needs to stay home on a working day to care for a child who cannot attend childcare, either because the child is sick or infectious. Since practically all pre-school children in Sweden in all social groups are in public childcare, this type of leave is no marginal phenomenon. Up to 120 days of care leave can be taken per year per child in whole days or as parts of days. Parents are eligible for care leave until the child turns 12 (Swedish Social Insurance Agency 2007; 2008a; 2008b).

Data from the Swedish Social Insurance Agency show that in 2006, 4.96 million days of care leave for the care of 679,000 children were taken. Population Statistics from Statistics Sweden reveal that 1.30 million children at ages 0-11 lived in Sweden in this year, meaning that care days were taken only for about half of the children who by age could make their parents eligible for leave. Of the taken days, an average of 7.3 days was taken per child, 2.7 of them by a father and 4.6 by a mother. Fathers' average participation in the leave has increased only marginally over the years, from 33.6% of leave days in 1999 to 35.7% in 2007, with a slight trend reversal in 2007.

The pay level for each day of care leave is calculated according to regulations in the sickness insurance benefit. This type of social insurance has an eligibility criterion based on working status; the claimant must receive and be expected to keep receiving income from work as an employee or by being self-employed. The income must be permanent, paid in money, and be based on a person's own work. As can be seen from these criteria, it is obvious that any study on care leave needs to consider eligibility regulations, as is the case for studies on policies and policy effects in general (cf. Neyer & Andersson 2008:709). Thus, controlling for the impact of eligibility regulations on the uptake and number of days taken is very important.

2.1 Incentives to share care leave

The possible gendering effects of the Swedish care leave program come from the economic incentives created by the regulations of the program. Parents and non-parents often report these incentives as one of

the major causes of their skewed division of care and parental leave (Swedish National Social Insurance Board 2003, Swedish Association of Graduate Engineers 2005). The incentives are also a recurrent issue in the political debate (referred to, for example, by the current Minister for Integration and Gender Equality[3]). Since these incentives are likely to vary in size depending on the income of parents taking leave, they are likely to play some role when parents decide on their division of leave. In the policy, there are two major incentives that work in a straightforward manner for couples with unequal earnings. First, the cap plays a role in that no compensation is given for incomes exceeding the cap. If the child is sick for a week and a parent has higher earnings than the cap, the income loss from that week might be substantial. The policy change studied in this paper did reduce or eliminate these incentives for partners with earnings higher than the cap. The second effect of economic incentives somewhat counteracts the likely effect of the cap change. It stems from the fact that parents on leave generally receive about 80% of their usual pay in compensation for taking care leave. Consequently, the 20% loss in income still resembles a larger amount for high-income earners than for low-income earners. Thus, there are still economic incentives involved even after the policy change. In strict monetary terms, it is more beneficial for the lowest earner in the couple to take the days of care leave. Due to data limitations[4], this study can focus only on the effects of the cap itself and not on the effects of earning differentials in couples on care leave. Other, more indirect effects such as foregoing career opportunities due to absence from work could also be important but are not considered here. The possibility that one of the partners might be more prone to accept being at home with the child can also not be addressed.

Further, the type of work place of the two parents might influence the division of leave. Absences are normally announced at very short notice, often in the morning of a working day. In the majority of workplaces, one day of care leave means that the work the parent was supposed to do has to be performed in some other way. It may need to be done by the parent, his- or herself, which would mean an extra workload at some point in the following weeks or days, or by his or her colleagues, which increases their workload on the leave day. Even though it is possible to find a substitute for an employee that is absent to take care of a sick child, there are administrative and other costs attached to the absence.

3. Data

The data for this study come from the Swedish population register system and from other administrative registers. The population registers contain reliable longitudinal information on the entire resident population of Sweden. These registers have been linked to various administrative registers where the registers of the Swedish Social Insurance Agency and the Tax Authorities are the most important for this study.[5] Much of the data used in this study, such as those on income and usage of care leave for care of sick children, are only available on an annual basis. Since the most important variables for our study could only be obtained as annual information, all variables are measured annually at the end of each year. The population is made up of all individuals registered as living in Sweden on December 31 in the particular year. Thus, this setup provides excellent longitudinal data, allowing us to follow individuals over the two studied years.

Since we are interested in the division of leave within couples we require parents to still be living together in both of the studied years. Also, we include only those couples with at least one care leave day taken in both of the studied years.

As already mentioned, due to employment requirements in the care leave regulation, the eligibility criterion in the policy is quite restrictive. In order to study the division of care leave in couples, the study can only include couples in which both partners are eligible for care leave. Eligibility can only come through paid work, meaning that all other states of activity than work in a day the child gets sick makes the parent non-eligible to care leave. Consequently, parents with an income from any other social

insurance benefit are not eligible to care leave when using that other social insurance. The only exception to this rule is the parental leave that can be used by parents in tandem with work. In this study, only those using the parental leave for extended periods of time need to be excluded from the analyses. Since only annual data on income from the social insurances are available, all individuals with any period of usage of other social insurance benefits except the care leave and extended periods of parental leave have been excluded. We argue that to get comparable measures both partners in the couple need to be eligible for care leave.

4. Results

4.1 Part one: Division of care leave when relating couples' incomes to the cap

The selected couples are divided into different groups depending on their income in relation to the income cap of the care leave program. In particular, we study the years 2005 and 2006 since our purpose is to study the policy change in 2006. In line with the required design of the study in Section 4.2, the couples are grouped after their income in 2006 in relation to the income cap level before the policy change. This produces four different groups that constitute the same couples in both years:

Group 1 – couples in which both the woman and the man have incomes lower than the cap,
Group 2 – couples in which the woman has an income lower than the cap and her partner has an income higher than the cap,
Group 3 – couples in which the woman has an income higher than the cap while her partner has an income below the cap, and
Group 4 – couples in which both the woman and the man have incomes higher than the cap.

Table 1 shows the number of days taken by the women and men in each of these groups in 2005 and 2006 and the percentage change in number of days between the two years. We start by comparing the division of leave between the groups of couples in 2005. Group 1 goes in line with aggregated national statistics in that the average woman takes more days of leave than her respective partner. Comparing groups 1 and 2 supports previous research (Amilon 2007a) in that the cap seems to have an effect on the division; the division of leave in group 2 is even more heavily skewed towards the women than the leave in group 1. However, when looking at the third group we see another effect that follows from the cap level. In this group the men do not just take a larger part of the leave than the men in group 1 but also *the largest* part of the leave. Gender has explanatory power because the division in this group does not entirely mirror that of group 2.

It is also interesting to note that the couples in group 4 take the least number of total days of all groups. Given that there are, for example, unlikely to be any variation in infections rates in daycare centers in areas where people with high income live and those in which people with low income live, the results show that parents are sometimes able to find solutions other than turning to the care leave when their children get ill. It could for example be that their higher income allows them to hire a babysitter. When comparing the men in groups 2 and 4 we note that the latter take a higher number of days and a larger percentage of days. This suggests that there is reason to also look at the effects of relative incomes between partners and not just levels of income per se.

Table 1. Descriptive statistics for all income groups in relation to the cap in the care-leave system of Sweden, 2005 and 2006

			GROUP 1 **Both below old cap**	**GROUP 2** **Only man above old cap**	**GROUP 3** **Only woman above old cap**	**GROUP 4** **Both above old cap**
			Freq	*Freq*	*Freq*	*Freq*
Average number of CSC days taken	Women	2005 2006 *Change between 2005 & 2006*	5.60 (5.41) 7.30 (7.02) *30%*	5.64 (5.12) 7.31 (6.82) *30%*	3.56 (4.43) 4.07 (5.48) *14%*	3.91 (3.83) 4.43 (4.32) *13%*
	Men	2005 2006 *Change between 2005 & 2006*	3.15 (3.97) 4.16 (5.10) *32%*	1.72 (2.71) 2.02 (3.22) *17%*	4.08 (4.41) 5.49 (5.75) *34%*	2.43 (3.27) 2.80 (3.76) *15%*
Number of couples			7425	11186	922	3290

Standard deviation in parentheses

4.2 Part two: Assessing the effect of the policy change on the division of leave

4.2.1 Model specification

Part one outlined what looked like an effect of the income cap on the division of leave in the different groups of couples. The following part will evaluate the policy change in 2006 that raised the maximum compensation per day to a parent who had to be absent from work to take care of his or her child. The likely effect of the policy change would be to remove some of the incentives that cause the differences in division of leave as demonstrated in part one of our study.

In order to estimate the effects of the policy change we take advantage of the specific setup of this change. Since only couples in which at least one of the partners had incomes higher than the cap were affected by the policy change, the change could be referred to as a natural experiment. In this 'experiment' the policy change is seen as a *treatment* or intervention affecting some groups and leaving others unaffected. This allows us to compare the differences in outcomes before and after the treatment for groups affected by the intervention to the same difference for unaffected groups. Such a setup is typically known as a difference-in-differences estimation. With an intervention (the policy change) that can be seen as random, is conditional on time, and that creates groups with fixed effects, the causal relationship of the change can be estimated. The method allows us to circumvent many of the endogeneity problems that typically arise when making comparisons between heterogeneous individuals (Bertrand et al. 2004).

Our dependent variable is the number of care leave days taken by the man in each couple for couple *i* in year *t.* Since the couples in group 1 are unaffected by the policy change they will function as the baseline in the model. The basic specification assumes that the number of days taken is affected by membership in one of the treatment groups. The treatment groups are therefore marked by binary variables ($GROUP2_{it}$, $GROUP3_{it}$, and $GROUP4_{it}$) that take on the value 1 if the couple is assigned membership in the specific group according to the income in 2006 and the income cap before the policy change, otherwise 0. In order to estimate the effects of the policy change we enter interaction dummy variables for each of the treatment groups. The interaction is made with the year dummy $YEAR_t$ that takes on the value 1 for 2006 and 0 for 2005. This gives the model

$$y_{it} = \beta_0 + \delta_1 YEAR_t + \beta_1 GROUP2_{it} + \beta_2 GROUP3_{it} + \beta_3 GROUP4_{it} + \beta_4 GROUP2*YEAR_{it} + \beta_5 GROUP3*YEAR_{it} + \beta_6 GROUP4*YEAR_{it} + a_i + u_{it},$$
$$t=1,2$$

in which a_i represents all unobserved time constant factors that affect y_{it}, and u_{it} all the unobserved time-varying factors that affect y_{it}. With such a setup the control group will be represented by the intercept and its time dimension by the year dummy $YEAR_t$. Accordingly, δ_1 will be the general change in care leave days taken over time and β_4, β_5, and β_6 will be the treatment effects for the different groups. These last three coefficients will thus represent the effect of the policy change. We also run the model with a number of control variables, $\beta_{6+K}X_K$ where K=1,2…, representing days of regular parental leave use, age, and education[6] for the woman and the man, respectively, days of care leave for care of sick children taken by the woman, presence of small children (1-3 year olds) in the household, and a dummy variable representing larger cities[7].

Estimating the model using pooled OLS would run the risk of giving inconsistent and biased results since our errors u_{it} are serially correlated due to the fact that the same individuals appear in two different years. We therefore estimate the model using random effects. For such estimation we need to assume that a_i is uncorrelated with each explanatory variable (Baltagi 2001), which seems reasonable in our case. Furthermore, a_i can be considered a random variable since the observations are part of a large population.[8]

The couples in the treatment groups are likely to be affected to different degrees by the policy change depending on the partners' income relative to the cap. The effect is likely to increase with every income unit over the old cap and reach its maximum at the level of the new cap. With incomes higher than the new cap the effect is however likely to start decreasing with every income unit. Partners with incomes much higher than the new cap are likely to be unaffected by the change since the pay from care leave is small compared to their income, regardless of the higher pay with the new cap. For this reason, the real high-income earners are excluded from the study.

Even when the effect on all treatment groups is positive, a setup which measures average effects will underestimate the potential effect for some of the couples. It even runs the risk of giving insignificant effects even if effects exist in some groups. As can be seen below, this does not seem to be the case for our study.

4.2.2 Results of the model estimation

Table 2 presents the results of the empirical estimation of the model. The dependent variable is the number of care leave days taken by the man for each year. The model is estimated using Huber and White standard errors.[9]

Table 2. *Model estimation of number of days of CSC taken for men in 2005 and 2006. Estimated with random effects and robust standard errors.*

		Estimates Model 1	**Estimates Model 2**
β_0	Intercept	2.71***	3.75***
		(0.09)	(0.45)
δ_1	$YEAR_t$	0.82***	0.89***
		(0.11)	(0.11)
β_1	$GROUP2_{it}$	-0.99***	-0.94***
		(0.11)	(0.11)
β_2	$GROUP3_{it}$	0.62*	0.77**
		(0.36)	(0.36)
β_3	$GROUP4_{it}$	-0.28	-0.13
		(0.20)	(0.20)
β_4	$GROUP2*YEAR_{it}$	-0.49***	-0.52***
		(0.13)	(0.13)
β_5	$GROUP3*YEAR_{it}$	1.07**	1.09**
		(0.46)	(0.46)
β_6	$GROUP4*YEAR_{it}$	-0.38*	-0.34
		(0.22)	(0.22)
β_7	Age of woman		-0.05***
			(0.12)
β_8	The man's taken days of parental leave		0.02**
			(0.01)
β_9	The woman's taken days of CSC		0.06***
			(0.01)
β_{10}	Presence of small children 1-3 years old		0.45***
			(0.12)
β_{11}	Dwelling in a larger city		0.35**
			(0.15)
	R-squared	0.065	0.090

***: Significant at the 0.01 level
**: Significant at the 0.05 level
*: Significant at the 0.10 level

The coefficients of interest are those on the interaction of the treatment groups and year. These indicate whether the policy change had an impact on men's use of care leave for the treatment groups compared to the control group. If we start by looking at group 2, in which the men have incomes higher than the cap

while their respective partners have incomes lower than the cap, and group 3, in which the women have incomes higher than the cap while their respective partners have incomes lower than the cap, we see that the estimates are negative for the former but positive for the latter. Even though all groups increased their days taken, as can be seen by the difference between δ_1 and the group time effects, the increase was smaller for group 2 and larger for group 3. This fact obviously calls for the importance of using a control group. In other words, the men in group 2 did *decrease* their number of days taken compared to the control group while the men in group 3 *increased* their number of days taken compared to the control group. Consequently, these results are opposite to those we would expect to find if the policy change would in fact have played a decisive role in the division of leave within couples. We thus see no indications of the policy change having any effect on the leave distribution within couples.

Adding the control variables to the model does not change the results for our variables of interest. The days of regular parental leave taken by the father should be seen as a control for if the father has taken days of regular leave instead of care leave. The same goes for the days of care leave taken by the mother; it is included as a control for the relative number of days. The results for the two models are stable across other model specifications as well.[10]

5. Conclusions

This study starts by pointing out that it is necessary to treat the couple as the unit of analysis in research on the uptake and usage of care leave. The partners influence each other in a multitude of ways. One of the most important for the division of care leave for care of sick children is the eligibility regulations in the policy. These regulations are restrictive in that the benefits are based on income in the labor market, meaning that parents are not eligible for the leave unless they receive an income from own work. Our study demonstrates how careful one needs to be in interpreting national statistics when looking at couples' decision-making processes when these are governed by strong eligibility regulations.

By analyzing register data covering the entire population of Sweden we were able to study couples in which both partners were eligible to care leave. Moreover, due to our large data, also relatively small subgroups could be studied.

Since the gender wage gap is still a reality in Sweden today, a policy in which the pay is based on labor market income is likely to affect the division of leave between partners with differences in their earnings. This study specifically focused on the effect of the income cap in the Swedish care leave policy. Since no pay at all is given for the part of the income that is higher than the cap, this cap is likely to affect divisions of care leave for care of sick children for couples in which one of the partners has an income that is higher than the cap and the other one not. If the case is that this person is more likely to be a man, the policy would have gendering effects on couples with unequal earnings.

The results of the study are mixed as regards these gendering effects. On the one hand, we see that dividing couples into different groups depending on the partners' income relative to the cap produces groups with very different patterns of care leave use. Couples in which the partners both have incomes lower than the cap show the division usually depicted in national statistics; the men do on average take the smaller part of the leave. In couples in which the man has an income higher than the cap while his partner has an income lower than the cap there seems to be an effect of the cap. These couples seem affected in the decision-making process in that they show an even more skewed division of leave than others. Moreover, the couples in the small group in which the woman has an income higher than the cap while her partner has income lower than the cap show a pattern where the woman on average takes the smaller part of the leave. Given that care leave for care of sick children can be seen as a proxy of household work (as shown by Eriksson & Nermo, 2010) these findings contrast previous research that

shows that women do the majority of the work (for reviews, see Lachance-Grzela & Bouchard 2010, Coltrane 2000, Shelton & John 1996). The results are also interesting for research on gender relations in that they suggest that gender does not play the usually predominant role. Instead, they suggest also an effect of the cap in the care leave regulation on couple behavior. However, by this comparison we cannot tell if it is the actual cap that causes the effect or if the cap rather works as a random income level that reflects the effect of income levels on the leave distribution. We also cannot tell if the association is caused by income itself or some other factors that are related to income. But, if the cap is the cause of these skewed divisions of leave between partners, the care leave policy would in itself actually reinforce patterns that it is supposed to counteract.

On the other hand, the results from the second part of the study show that when the incentives pointed out as the cause of a particular pattern of dividing care leave are almost fully removed by a substantial raise in the cap, the division of leave stands unaffected. By using a method in which we control for changes that would have occurred even without the policy change, we see that none of the groups in which one of the partners had income higher than the cap changed their behavior in the expected direction as compared to a control group which was unaffected by the change. Neither men nor women with an income higher than the cap increased their share of days taken as a result of the policy change. These results complement those from the first part of the study. Maybe it is not just the cap that is causing the unequal sharing of the care leave. Dividing the groups according to the positioning of incomes in relation to the cap might also reflect the division of leave according to some other factors that follow from income. To some extent, the division of leave is thus likely to be a result of the policy but also a reflection of the partners' relative incomes or other factors that follow income. One such factor is the above mentioned workplace or position. Since we cannot include an accurate measure of workplace or position in this study, it is likely that income measures some of the effect of the workplace or the position. The correlation is however not likely to be entirely linear. A parent with a high income could have colleagues that are less dependent on him/her than colleagues are on someone in a low income job (office worker vs. nurse) but he/she could also be in a managerial position and thus probably be more important than the low income parent.

It could also be that the period in which the change was in effect was too short to actually cause a behavioral change. The change would maybe have had long-term effects that would have shown up if the cap had not been changed back to its original level already in the subsequent year. Recent research on other policy changes introduced in the parental leave program suggests that it takes longer than a year for parents to adapt to the new policy (Duvander & Johansson 2010). It is however important to note the difference between a new policy that parents need to be informed about and adapt to and taking away something that many parents have seen as a restriction (Swedish Association of Graduate Engineers 2005) as in the case of the cap change in this study.

Notes

[1] These refer to earnings before tax but after social-security contributions are paid. The median wage refers to the earnings of people in the labor force in Sweden in 2006.
[2] Median wages before tax, but after social-security contributions are paid, were in 2006 23,600 (~2,600 Euro) for men and 21,000 (~2,300 Euro) for women.
[3] Nyamko Sabuni, April 3, 2007, in an interview with the Swedish radio-news program 'Ekot'.
[4] Detailed data on earnings is not available in register data. We do for example only have data on yearly income and no information on whether the individual worked full or part time.
[5] The particular database used in this paper is called LISA. It contains population registers linked to different administrative registers with information on the sickness, parental, and unemployment benefits. LISA is created by Statistics Sweden for research purposes; see Statistics Sweden (2008).
[6] More than 14 years of schooling (tertiary) takes on the value 1, otherwise 0.

[7] The most populated municipalities of Stockholm, Gothenburg and Malmö take on the value 1, otherwise 0.
[8] A Hausman test with 99% significance and a Breusch-Pagan LM test for random effects also points to the accuracy of a model with random effects.
[9] The usage of the robust standard errors is due to indications that the variance of the errors where non-constant (heteroscedasticity). This was corrected using the robust standard errors, even though the significance of the coefficients did not change to any appreciable extent.
[10] Other estimations include pooled OLS and tobit regressions.

References

Amilon, A. 2007a. "On the sharing of temporary parental leave: the case of Sweden" *Review of Economics of the Household.* 5:385-404

Amilon, A. 2007b. "Satisfaction and comparison sharing" in: Amilon, Anna. 2007. *Studies on the Swedish parental insurance.* PhD thesis (Lund University, Lund Economic Series 140)

Andersson, G., Hoem, J., & Duvander, A. 2006. "Social differentials in speed-premium effects in childbearing in Sweden" *Demographic Research*. 14, 4, 51-70

Andersson, G. 2004. "Childbearing developments in Denmark, Norway, and Sweden from the 1970s to the 1990s: A comparison" *Demographic Research*. Special Collection 3, 7, 155-176

Baltagi, B. 2001. *Econometric Analysis of Panel Data*. John Wiley & Sons, Chichester, United Kingdom

Bertrand, M., Duflo, E. & Mullainathan, S. 2004. "How much should we trust difference-in-differences estimates?" *The Quarterly Journal of Economics.* 119, 1, 249-254

Bourdieu, P. 1996. "On the family as a realized category," *Theory, Culture & Society* 13(3): 19–26.

Gislason I. & Björk Eydal, G. 2010. "Familiepolitiken og barnas beste" [Family policy and what's best for the child] in Gislason, I. & Eydal G.B (eds) *Föräldraledighet, omsorgspolitik och jämställdhet i Norden.* TemaNord 2010:595, Nordic Council of Ministers, Copenhagen.

Bygren, M & Duvander, A. 2006. "Parents' workplace situation and fathers' parental leave use" *Journal of Marriage and Family*. 68, 2, 363-372

Deven, F. & Moss P. 2002. "Leave arrangements for parents: overview and future outlook" *Community, Work and Family.* 5, 3, 237-255

Duvander, A. & Johansson, M. 2010. "What are the effects of reforms promoting fathers' parental leave use?" *Stockholm Research Reports in Demography* 2010:14

Duvander A & Jans, A. 2009. "Consequences of father's parental leave use: Evidence from Sweden" *Finnish Yearbook of Population Research.* Special Issue of the 16th Nordic Demographic Symposium in Helsinki 5-7 June 2008.

Duvander, A. 2006. "Föräldrarnas användning av föräldraförsäkringen" [Parents' use of parental leave] Analyserar 2006:5. Social Insurance Agency, Stockholm

Ekberg, J., Eriksson, R., & Friebel, G. 2005. "Parental leave – A policy evaluation of the Swedish 'daddy month' reform" Discussion Paper Series, IZA DP No 1617, Institute for the Study of Labor (IZA), Bonn

Eriksson, R & Nermo, M. 2010. "Care for sick children as a proxy for gender equality in the family" *Social Indicators Research.* 97, 3, 341-356.

Eriksson, R. 2005. "Parental leave in Sweden: The effects of the second daddy-month" Working Paper Series 9/2005. Swedish Institute for Social Research, Stockholm University, Stockholm, Sweden

Evertsson, M. & Nermo, M. 2007. "Changing resources and the division of housework: A longitudinal study of Swedish couples" *European Sociological Review.* 23, 4, 455-470

Haas, L. 1992. *Equal parenthood and social policy: a study of parental leave in Sweden.* Albany, State University of New York Press

Hoem, J. 1993. "Public policy as the fuel of fertility: Effects of a policy reform on the pace of childbearing in Sweden in the 1980s" *Acta Sociologica.* 36, 1, 19-31

Kamerman, S. & Kahn, A. 1991. *Child Care, Parental Leave, and the Under 3s: Policy Innovation in Europe* New York, Auburn House.

Kamerman, S. & Kahn, A (eds.). 1978. *Family Policy: Government and Families in Fourteen Countries* New York, Columbia University Press.

Lachance-Grzela, M. & Bouchard, G. 2010. "Why do women do the lion's share of housework? A decade of research" *Sex Roles*. Presently only online.

Lewis, J., & Campbell M. 2007. "UK work/family balance policies and gender equality, 1997-2005." *Social Politics.* 14, 1, 4-30

Neyer, G. & Andersson, G. 2008. "Consequences of family policies on childbearing behavior: effects or artifacts?" *Population and Development Review.* 34, 4, 699-724

Shelton, B. & John, D. 1996. "The division of household labor" *Annual Review of Sociology.* 22, 299-322
Statistics Sweden. 2008. *Bakgrundsfakta, Arbetsmarknads- och utbildningsstatistik 2008:1 Longitudinell Integrationsdatabas för Sjukförsäkrings- och Arbetsmarknadsstudier (LISA) 1990-2005* [Background facts to the labor market and education statistics 2002:2. A longitudinal database on education, income and employment]. Statistics Sweden. Örebro, Sweden.

Sundström, M. & Duvander, A. 2002. "Gender division of childcare and the sharing of parental leave among new parents in Sweden" *European Sociological Review*. 18, 4, 433-447

Swedish Association of Graduate Engineers. 2005. *Kids och karriär* [Children and career]. Stockholm, Sweden

Swedish National Social Insurance Board. 2003. *Socialförsäkringsboken 2003.* [Social insurance 2003] Stockholm

Swedish Social Insurance Agency. 2007. "VAB- Vård Av Barn. Tillfällig föräldrapenning 1974-2006" [Care of sick children: Temporary parental leave 1974-2006] Redovisar 2007:10, Stockholm

----------2008a. “Information om tillfällig föräldrapenning” [Information on temporary parental leave]. Available at: http://www.forsakringskassan.se/omfk/analys/barnfamilj/tfp/, November 17, 2008

----------2008b. “Faktablad: Tillfällig föräldrapenning-vård av barn” [Fact sheet: Temporary parental leave for care of sick children]. Available at: http://www.forsakringskassan.se/pdf-broschyr/faktablad/tfp.pdf, November 17, 2008