Income and Parental Leave over Time ó Period and Life-cycle Effects Helen Eriksson and Ann-Zofie Duvander Stockholm University Demography Unit, Department of Sociology

Previous studies on the effect of income on parental leave usage have shown different, sometimes contradictory effects. We know from some studies that a higher income of both the mother and the father leads to higher uptake by fathers (Sundström & Duvander 2002, Jansson et al 2003, Ljungh & Nyman 2005, Duvander 2006), but the correlation is not linear: fathers with low income take very short periods of leave, if any at all, and high income fathers take less leave, especially those in managerial positions (Nyman & Pettersson 2002, Duvander 2006). Recent descriptive statistics on the usage of parental leave in different income groups, however, show only the pattern that low income fathers take less leave and no effect is found for other income categories (Duvander & Lammi-Taskula 2010). The opposite relationship, in which mother income and parental leave usage is negatively related, however seems persistent, as low income mothers continue to take the longest leaves (Duvander 2006, Duvander & Lammi-Taskula 2010).

All previous studies known to us have however used cross-sectional data and many also involve different measures of income. We propose that the effect of income on parental leave usage is likely to change over time, both over time periods and over individual life-courses. Using Swedish register data for the years 1994-2007, we will be able to give a clearer answer as to how usage is determined by income. Furthermore, we will also be able to use the same measures for the entire period, which is a methodological improvement on previous studies. Earlier contradictory results could be due to poor measures of income because it was not measured at the correct time as well as the impossibility to control for time-constant covariates (Singer & Willett 2003).

Studies of parental leave usage are important for many different reasons. Being one of the most important of all Swedish family policies, parental leave promotes women to take part in the labor force and men to take part in family life. The earnings-based benefit in the program works as an incentive for parents not only to establish themselves in the labor market before having children but also to return to work between the births of their children (Rönsen & Sundström 2002). As labor force participation rates of mothers with small children in Sweden long ago reached that of men, Swedish family policy making has been mostly concerned with getting men involved in family life (Duvander 2008). Equal parenthoodø (Haas 1992) has been a public policy aim for almost 40 years and evidence of benefits in getting fathers involved are many. For mothers, fathersøinvolvement would relieve some of the burden of the reconciliation of paid work and family life, a burden that some argue has increased gender inequality (Gornick & Meyers 2008). Also, even though mothers participate in the labor force to the same degree as men, their hours of work across the life-course are much less. They take a much longer period of leave from the labor market when child-rearing and it is also very typical for mothers of small children to work part time while men almost never do (Duvander 2008). For fathers, much research from the Nordic countries has shown positive effects of parental leave at the societal as well as a family and individual level (overview in Brandt & Gislason 2010). Haas & Hwang (2008), for example, show that an early close connection between fathers and children continues during childhood. Arguments for fathers to take part in parental leave in Sweden have changed over time, from focusing on benefits for the father himself, to focusing on what is best for the child and finally to the question of taking responsibility (Klinth & Johansson 2010). Regarding the benefits for children, the ongoing public debate circulates around how much and by whom the children should be taken care of

(Saraceno 2011). It is viewed as one of the largest challenges of policy design in the OECD-countries (UNICEF 2008). The Swedish parental leave program allows for most children to stay at home for at least a year and after that almost all children take part in public daycare, while the differences between children in especially imarket-oriented@countries can be large (Ferrarini 2003).

In addition, the determinants of usage need to be settled for studying the much debated links between parental leave policy and high fertility/high employment (Ellingsaeter 2009). It is also important to look at the results the other way around; the results will show which of the income groups are the driving force of the steady increase in menøs uptake over time (from about 10% in the beginning of the 1990s to 25% today). For example, we know that uptake by men with low income has maintained low levels over the period, but not which other income groups compensated for this on the aggregate level. It also important to note the compositional change over time in that a larger proportion of the fathers take leave, from about half of the fathers using no leave at all in the beginning of the 1990s to 85% in 2011.

Changes in effect of income over time periods and life-courses of individuals

We propose several reasons to why the effect of income on parental leave usage has changed over time. First, changes that are external to the parental leave system, such as in society and the economy, could affect the relationship. In the early 1990s for example, Sweden was hit by a severe recession in which the GDP decreased three years in a row and unemployment rose from 2 to 8%. The effects of this recession on families have already been document, for example in historically low levels of childbearing (Duvander & Andersson 2010). Many of the first exploratory studies on parental leave usage were performed using data from this period, but parents behave differently in a time of crisis and different income groups respond differently to crisis.

There have also been internal changes over time in the parental leave program that are likely to affect the relationship between income and parental leave usage. Apart from the steady extension of the leave length over time, the replacement levels have also been both lowered and enlarged. Many of these policy changes have been studied as natural experiments (Ekberg et al 2005, Eriksson 2005, Eriksson 2011, Duvander & Johansson 2010), but these studies have only been designed to catch the immediate effect on the average parental leave usage.

It is also likely that the effect of income differs over the life-cycle of parents. Studies have shown that younger fathers and older mothers take more leave (Duvander 2006), but we do not know how age interacts with other determinants such as income. Since individual income growth is typically high in early adult years and then levels off, a low income at older ages might be closer to the final income over the life-cycle while a low income at younger ages might fail to reflect how income will grow in the next years and thus fail to take human capital into account. In Sweden, career progression flattens out after 5-10 years in the labor market (Härkönen & Bihagen 2011), which is a finding that gives us grounds for differential expectations. In line with this õoccupation status maturationö hypothesis, the same level of income could, depending on the age of the parent, mean both the beginning of a career and a career that has already stagnated. Consequently, there are different incentives in different parts of the life-course.

Theory

Even though different theories have been applied to the division of parental leave, none of them include all dimensions that govern the decision to take leave. Closest at hand lays the different frameworks of the division of household work within the couple but they all deviate in some important aspects from the mechanisms involved in division of parental leave. The relative resources perspective is applicable because the partnersøresources could determine the division of leave (Blood and Wolfe 1960). Opportunity costs and specialization within the couple (Becker 1981) could also explain one of the partners taking all the leave. The most important difference is however that child care (which is often not included in analyses of household work, see Coltrane 2000) has other determinants than household work. While household work is typically seen as something people would want to avoid, taking care of your own children has unclear preferences. Also, child care, and especially the care performed when on parental leave, are not daily recurring events, but something that parents devote all their time to while being on leave.

The other set of theories that applies to some parts of the mechanisms involved are those on care work (for overview, see England 2005). These theories involve both paid and unpaid care work, but classifying parental leave use in Sweden is not as easy as one would think. First, the leave is paid. The pay however is high, 80% of the income today and 90% up until 1995, which is much higher than working for pay in the care sector, especially for high-income groups. Note, however, that even though parental leave gives pension rights, a wage penalty exists for long leaves (Evertsson & Duvander 2010). In contrast to the pay given, the activity resembles unpaid parental caring in all other aspects because the parent cares for its own child in its own home. The work burden is also likely to be different in that parents usually take care of only the newborn and no other children, mostly not even the older siblings because they are in publicly provided day care. In sum, no theoretical framework for how parents 1) divide an 2) extensive parental leave period 3) for their own children that they care about on a 4) high level of compensation, still needs to be developed. Having recognized this fact, the empirical work in this study will contribute to theoretical developments within the area.

Data and method

The study will use register data from the Swedish administrative registers for all children born in 1993-2007. Specific measures come from the same sources for all years, which is important to possibly avoid the different effects of income found in previous studies. The earnings data we have come from reports from the employer on monthly income (before transfers) of the individual. This measure is new in studies in parental leave but we believe that it is a more stable measure that much better represents the income level that benefits from the parental leave system is calculated upon. The data will also allow us to connect both parents in a dual-earner couple, which lets us look at income and uptake of the mother and the father simultaneously. We also have a number of different control variables such as the work place sector, work experience, number of children in the household and place of residence. As previously said, for interactions with income, we have year of birth and educational level of both mother and father.

We will use panel regression with random effects for the analyses. These models take into account that the data appear on two different levels; the same individuals appear in different points in time. Interactions will be used to measure the different effects of income over time and over different ages.

References

Albrecht, J.W., Edin, P-A., Sundström, M. & Vroman, S.B. 1999. Career Interruptions and Subsequent Earnings: A Reexamination Using Swedish Data. *Journal of Human Resources*, Spring 1999, V 43. Becker, G. S. (1981). *A treatise on the family*. Cambridge, MA: Harvard University Press. Blood, R. O. & Wolfe, D. 1960. *Husbands and wives*. Glencoe, IL: Free Press.

- Brandth, B. & Gislason, I. 2010. Familiepolitikken of barnas beste. i *Föräldraledighet, omsorgspolitik och jämställdhet i Norden*, I. Gislason & G.B. Eydal (red), 29-62, Tema Nord 2010:595, Nordic Council of Ministers, Copenhagen.
- Bygren, M. & Duvander, A. 2006. ParentsøWorkplace Situation and FathersøParental Leave Use. *Journal of Marriage and the Family*, 68:363-372.
 - Coltrane, S. 2000. Research on Household Labor: Modeling and Measuring the Social Embedness of Routine Family Work. *Journal of Marriage and Family* 62 (4):1208-1233
- Duvander, A. 2006. Föräldrarnas användning av föräldraförsäkringen. *RFV Analyserar 2006:5*, 23-38, Försäkringskassan, Stockholm.
- Duvander, A. 2008. Family Policy in Sweden: an overview. SPaDE Working Paper series 2008:5
- Duvander A. & Andersson G. 2010. Barnafödande och familjepolitik i kristider [Childbearing and family policy in a time of crisis]. In: Global kris ó Håller välfärdssystemen? [Global crisis ó Will the welfare systems hold?] Social Insurance Report 2010:6
- Duvander, A. & Johansson, M. 2010. õWhat are the effects of reforms promoting fathersøparental leave use?ö Stockholm Research Reports in Demography 2010:14
- Duvander, A. & Lammi-Taskula, J. 2010. Föräldraledighet. i: *Föräldraledighet, omsorgspolitik och jämställdhet i Norden*, I. Gislason & G.B. Eydal (red), 29-62, Tema Nord 2010:595, Nordic Council of Ministers, Copenhagen.
- Ekberg, J., Eriksson, R. & Friebel, G. 2005. Parental leave ó A policy evaluation of the Swedish idaddy monthø Reform. *Discussion Paper Series*, IZA DP No 1617, Institute for the Study of Labor (IZA), Bonn.
- Ellingsaeter, L. 2009. Leave policy in the Nordic welfare states: a *recipeø for high employment/high fertility? Community, Work & Family. 12(1): 1-19
- England, P. 2005. Emerging Theories on Care Work. Annual Review of Sociology. 31:381-399
- Eriksson, H. 2011. The Gendering Effects of Swedenøs Gender-neutral Care Leave Policy. *Population Review*, 50 (1): 156-169
- 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.
- Evertsson, M. & Duvander, A. 2010. Parental Leave Possibility or Trap? Does Family Leave Length Effect Swedish Womenøs Labour Market Opportunities? *European Sociological Review*, 27 (4):435-450.
- Ferrarini, T. 2003. *Parental leave Institutions in Eighteen Post War Welfare States*, Swedish Institute for Social Research Dissertation Series 55, Stockholm University, Stockholm.
- Gornick, J.C. & Meyers, M. K. 2008. Creating gender egalitarian societies: An agenda for reform. *Politics and Society*, 36 (3): 313-349.
- Haas, L. 1992. Equal parenthood and social policy: a study of parental leave in Sweden. Albany, State University of New York Press
- Haas, L. & Hwang, P. 2008. The impact of taking parental leave on fathersø participation in childcare and relationships with children: Lessons from Sweden. *Community, Work & Family*, 11 (1): 856104.
- Härkönen, J & E. Bihagen. 2011. Occupational attainment and career progression in Sweden. *European Societies* 13:3 451-479
- Jansson, F., Pylkkänen, E. & Valck, L. 2003. En jämställd föräldraförsäkring? *SOU 2003:36. Bilaga 12 till Långtidsutredningen 2003.* Fritzes, Stockholm.
- Klinth, R. & Johansson, T. 2010. Nya svenska fäder, Boréa förlag, Umeå.
- Lappegård, T. 2008. Changing the gender balance in caring: Fatherhood and the division of parental leave in Norway. *Population Research and Policy Review*. 27:139-159
- Ljungh, S. & Nyman H. 2005 Skillnader mellan mammans och pappans arbetinckost och betrydlesen för pappornas uttag av föräldrapenning in: SOU 2005:73 Reformerad föräldraförsäkrign ó Kärlek, Omvårdnad, Trygghet. Fritzes, Stockholm.
- Nyman, H. & Pettersson, J. 2002. Spelade pappamånaden någon roll? ó pappors uttag av föräldrapenning. *RFV Analyserar* 2002:14
- Pierson, P. 2004. *Politics in Time: History, Institutions, and Social Analysis*, Princeton University Press, Princeton.
- Rönsen, M. & M. Sundström. 2002. Family policy and after-birth employment among new mothers ó a comparison of Finland, Norway and Sweden. *European Journal of Population* 18:121-152
- Saraceno, C. 2011. Childcare needs and childcare policies: A multidimensional issue. *Current Sociology* 59:78-96
- Singer, J & J. Willett. 2003. Applied Longitudinal Data Analysis. Oxford University Press, New York.
- Sundström, M. & Duvander, A. 2002. Gender division of child care and the sharing of parental leave among new parents in Sweden. *European Sociological Review*, 18:433-447.
- UNICEF. 2008. The child care transition, UNICEF Innocenti Research Centre, Florence.