Type of Occupation and the Transition to Parenthood in Sweden*

Sofi Ohlsson, Stockholm University Demography Unit (SUDA), Sweden
sofi.ohlsson@sociology.su.se

Introduction

Ever since large numbers of women started to enter the labor market in the second half of the 1900s, much research has been devoted to the relationship between work and childbearing. The research has focused on reconciliation of family and work, and how having children is related to labor-market activity, especially from women's point of view. There are, however, still some dimensions of labor-market activity and work conditions that have not been fully studied in relation to childbearing. The aim of this study is to add to understanding of the work-family nexus, by studying the relationship between type of occupation and the transition to parenthood. This paper proposes that men and women in the labor market might face quite different possibilities to reconcile family and work depending on the characteristics of their occupation and might therefore have differential transitions to parenthood.

This paper builds to a large extent on Swedish studies that show that educational *field* is more important for determining childbearing differentials than is educational *level*, which is commonly used in studies of family formation (Hoem *et.al.* 2006a; 2006b; see also Lappegård & Rønsen, 2005 for a Norwegian study). These studies have found large differentials in completed fertility and ultimate childlessness among women across different educational fields. A central part of the authors' interpretations of the results are the diverse work conditions and experiences of women in different occupations. They mean that there might be differential possibilities to combine work and family life related to the security of the employments, the flexibility in work conditions and sex distribution in different sectors of the labor market. They also address issues such as possible self-selection into labor-market sectors and family forms, as well as possible cultures of reproduction in different social groups. However, these studies use information on educational field and not occupational

* This study is part of the research project **Welfare, labor-market status and family dynamics**, financed by the Swedish Council for Working Life and Social Research

characteristics. There is hardly any research on the relationship between type of occupation and family dynamics (see e.g. Stanfors, 2009; 2010 for examples of Swedish studies on three specific "fast-track professions"). Therefore this study addresses this topic, with access to actual employment data.

The theoretical focus in this paper is mainly on compatibility of work and family life, as well as gendered patterns in the relationship between occupational characteristics and childbearing. By including both men and women in the analysis, it is possible to study similarities or differences in patterns between the two sexes. In this way further knowledge and a more valid theoretical discussion about the relationship between employment, family behavior and gender can emerge.

Sweden as a point of reference

It is particularly interesting to study the interplay between work conditions and family dynamics in a country like Sweden. This country, as well as its Nordic neighbors, often serves as a point of reference in studies on family dynamics and the relationship between family and work. There are several reasons for this. First, there is very rich and reliable register data, containing life histories on for example demographic events as well as socio-economic characteristics. Another reason is that a high level of female labor-force participation is combined with relatively high levels of childbearing (see e.g. Billari & Kohler, 2004). Furthermore, labor-market attachment and childbearing are positively related at the individual level for both men and women (see e.g. Andersson, 2000; Hoem, 2000). This has generally been ascribed to policies promoting reconciliation of family and work, encouraging parent's labor-market attachment and promoting gender equality (for a general discussion see e.g. Neyer & Andersson, 2007; for discussion on Sweden, see e.g. Bernhardt 1993; Hoem, B. 1993). The Nordic countries are also often seen as forerunners in the development of new family-demographic behavior (see e.g. van de Kaa 2002).

Data and methods

For the analysis I use Swedish population register data derived from the STAR[1] (Sweden in Time – Activities and Relations) database that gathers data from various administrative registers. In

[1] The database is maintained at the Stockholm University Demography Unit (SUDA) and the Swedish Institute for Social Research (SOFI) at Stockholm University and is administered by Statistics Sweden.

total, 1.5 million men and women between ages 18[2] and 49 are included in the study. The data is longitudinal and at the individual level, containing relevant occupational and family demographic histories as well as a large amount of socio-economic and background data for the entire Swedish population in the years 1997-2007. Information on occupation is recorded yearly, while childbearing is covered with the accuracy of a month.

The occupational data combines information on type of work performed and level of qualification generally required. There is information on occupation on different levels of detail and for this study 31 different categories were created from 112 single occupations. This precise specification of occupational type is only possible when having as large data sets as in this register data. The creation of categories was based on type of occupation and level of qualification as well as on previous findings (mainly from Hoem *et al*. 2006a; 2006b) on groups that stand out in childbearing patterns, or which could be expected to in line with that research.

In the articles by Hoem *et al.* (2006a; 2006b), childbearing is studied through completed fertility and ultimate childlessness. To maximally utilize the longitudinal character of available demographic and socio-economic data in this study, the method of analysis used is event-history analysis, which is a standard method for this kind of data (see Hoem, 1993 for an introduction). More specifically, I use piece-wise constant baseline intensity models. First birth risks among men and women in different occupational groups are studied. The propensity of becoming a parent is modeled as affected by the type of occupation and other characteristics of the occupation, as well as by a set of other relevant variables. The main control variables are calendar period, age, sex, country of birth, region of residence, educational level attained, study activity and income from work. All variables are time-varying except for sex and country of birth.

Results

The main results in this study are presented in Figure 1 and show how the transition to parenthood differs across occupations. Models are run separately for men and women to show gender differences and similarities in the first birth risks across occupations. Even after controlling for socio-economic individual characteristics such as educational level and income, there are childbearing differentials across occupational categories.

[2] Occupational data is only recorded from age 18 and onwards.

In Figure 1, the occupations have been put in order of the extent to which a specific occupation is usually found in the public sector. At the top are occupations that most often are found in the public sector and at the bottom are occupations predominantly found in the private sector.

Figure 1. Relative risks of becoming a parent, by occupation
Occupations ordered by share of job positions in public sector: top = highest, bottom = lowest

Relative risks standardized for: age, period, region of residence, country of birth, educational level, study activity and income.

A first observation is that the patterns for men and women look so similar. Out of the ten occupations that have the highest transition rates for men, nine are also on the "top ten" for women. For both men and women, the occupations with the highest transition rates are the ones mainly found in the public sector, those belonging to the teaching and caring professions and highly qualified occupations. The lowest transition rates are found in low-qualified occupations in the private sector and that are not related to teaching or caring.

Some further analyses using constructed variables for occupational characteristics (not presented in detail here) have also been carried out. They show that having an occupation oriented towards teaching or caring and working in an occupation most often found in the public sector are factors that increase childbearing propensities for both men and women, but slightly more so for women than for men. Furthermore, working in a female dominated occupation increases the propensity of becoming a mother, but not necessarily the propensity of becoming a father[3]. The risk of entering parenthood is also higher the more highly skilled one's occupation is, and this pattern is especially strong for men.

Discussion and conclusions

The results from this study can be interpreted as signaling that men and women tend to get established, not only in the labor market, but also in an "appropriate occupation" before having children. Occupations mainly belonging to the public sector are related to higher transition rates, and especially so for women. This is likely because jobs in the public sector are known for having a high degree of employment security and flexibility. The public sector might be described as having relatively "parent-friendly" arrangements, such as extensive possibilities of part-time work and additional income compensations to parents on parental leave.

Women, but not necessarily men, working in typically female occupations have fast transitions into parenthood. It can be assumed that work environments that are female-dominated become more used to pregnancies, parenthood and childrearing and therefore also are more encouraging of childbearing. It could also be argued (as in Hoem et.al. 2006a) that employers are more aware of or used to parent's needs regarding work and family life, therefore making work and family life more compatible. There might be more job flexibility,

[3] It is slightly difficult to disentangle the effects from sex distribution and sector as these two factors are highly correlated; women work in the public sector to a much higher extent than men do.

opportunities to work part-time and more exit- and re-entry options. Therefore, working in an occupation that is female-dominated is expected to be related to high propensities of becoming a parent. Why this pattern seems less clear for men could perhaps be explained by the fact that it is still mainly women who care for children. For example, mothers in Sweden work part time and take parental leave to a much larger extent than do fathers (Statistics Sweden, 2007).

The fact that having a highly qualified occupation has positive childbearing effects for both men and women might signal a surmountable level of work-family conflict for both men and women in these occupations. Furthermore, the least qualified occupations might be more common at younger ages, for example before or in parallel with attaining tertiary education or as temporary or first jobs in the labor market. Therefore, these occupations might be less conducive to childbearing. Having a highly qualified occupation may on the contrary be seen as a definite establishment on the labor market and might therefore be related to a higher propensity of entering parenthood.

It is worth mentioning that there could be other factors than those measured here that influence the relationship between type of occupation and transition to parenthood. There might for instance be some selection of individuals into labor-market sectors and family forms and adaptation of behaviors related to family life and activity in the labor market. For example, the high transition rates among the teaching and caring professions likely signal a high degree of compatibility between work and family life. However, this result might also reflect a special interest in social relationships that leads both to a certain type of occupations and a high degree of family orientation.

In conclusion, the main contribution of this study is that it further explores the relationship between work and family dynamics in a manner that to a high degree takes advantage of the available data from Swedish population registers. By studying different occupational types, the heterogeneity of labor-market experiences and their associations to childbearing are taken into account.

References

Andersson, G., 2000. The impact of labor-force participation on childbearing behavior: Pro-cyclical fertility in Sweden during the 1980s and the 1990s. *European Journal of Population* 16: 293-333.

Bernhardt, E., 1993. Fertility and employment. *European Sociological Review* 9: 25-42.

Billari, F.C., and Kohler, H-P., 2004. Patterns of low and lowest-low fertility in Europe. *Population Studies* 58: 161-176.

Breen, R. and Jonsson, J.O., 2000. Analyzing educational careers: A multinominal transition model. *American Sociological Review* 65(5): 754-772.

Elster, J., 1991. Rationality and social norms. *Archive Européenne de Sociologie* 32: 109-129.

Hoem, B., 1993. The compatibility of employment and childbearing in contemporary Sweden. *Acta Sociologica* 36: 101-120.

Hoem, B., 2000. Entry into motherhood in Sweden: the influence of economic factors on the rise and fall in fertility, 1986-1997. *Demographic Research* [Online] 2(4). Available at http://www.demographic-research.org/Volumes/Vol2/4.

Hoem, J.M., 1993. Classical demographic methods of analysis and modern event-history techniques. IUSSP: 22nd International Population Conference, Montreal, Canada, Volume 3: 281-291.

Hoem, J.M., Neyer, G., and Andersson, G., 2006a. Education and childlessness: The relationship between educational field, educational level, and childlessness among Swedish women born in 1955-59. *Demographic Research* 14(15): 331-380.

Hoem, J.M., Neyer, G., and Andersson, G., 2006b. Educational attainment and ultimate fertility among Swedish women born in 1955-59. *Demographic Research* 14(16): 381-404.

Lappegård, T., and Rønsen, M., 2005. The multifaceted impact of education on entry into motherhood. *European Journal of Population* 21: 31-49.

Neyer, G., and Andersson, G., 2007. Consequences of family policies on childbearing behavior: Effects or artifacts? MPIDR Working Paper 2007-021. Max Planck Institute for Demographic Research, Rostock.

Stanfors, M., 2010. To publish or perish? Continued Childbearing among Academics and other Fast-Track Professionals in Sweden, 1991–2005. Paper presented at the Annual meeting of the Population Association of America, Dallas, 15 April.

Stanfors, M., 2009. Family commitment among fast-track professionals in Sweden, 1991–2005. Paper presented at the Annual meeting of the Population Association of America, Detroit, 2 May.

Statistics Sweden, 2007. Barn och deras familjer [Children and their families]. Demografiska Rapporter 2007:4. Statistics Sweden, Örebro.

van de Kaa, D.J., 2002. The idea of a second demographic transition in industrialized countries. Paper presented at the Sixth Welfare Policy Seminar of the National Institute of Population and Social Security, Tokyo, 29 January.

Wolbers, M., 2003. Job mismatches and their labour market effects among school leavers in Europe. In Kogan, I. and Müller W. (eds.): *School-to-work transitions in Europe: Analyses of the EU LFS 2000 ad hoc module.* 89-120. Mannheimer Zentrum für Europäische Sozialforschung, Mannheim.

Appendix

Table 1A. Distribution of months of exposure across occupational categories, for women and men separately, 1997-2007. Percent belonging to each category.

Occupation	Women	Men
Armed forces	0.1	1.3
Senior officials, managers, directors	1.1	2.1
Managers of small enterprisers	0.3	0.3
Physicians, dentists, pharmacists etc.	1.1	0.8
Librarians, archivists etc.	0.5	0.2
Natural science professionals	2.4	6.4
Midwives and other specialist nurses	0,8	0.1
Psychologists, social work etc.	1.4	0.3
Pastors, reverends, clergymen	0.1	0.1
Teaching, primary and special	4.6	1.8
Teaching, higher education	3.2	3.6
Business, legal, social science professions	4.0	3.2
Nurses, physiotherapists, opticians etc.	5.1	0.8
Finance, sales, administration	6.7	5.1
Police, firemen, security personnel	1.1	2.6
Basic teaching, social work etc.	5.3	1.7
Technicians, engineers etc.	2.3	8.4
Writers, artists, performers etc.	1.2	0.9
Cashiers, customer service clerks	3.2	1.1
Office clerks, secretaries	8.3	7.4
Personal care and related workers	27.0	6.8
Restaurant, travel and care workers	2.2	1.3
Shop and stall salespersons etc.	6.2	3.9
Skilled agricultural and fishery workers	0.3	0.7
Craft and related trades workers	0.4	0.7
Extraction and building trade workers	0.3	6.0
Metal, machinery and related workers	0.5	6.3
Drivers and mobile-plant operators	0.4	3.6
Stationary-plant and machine operators	3.2	14.9
Manufacturing, mining, transport labor	1.0	3.4
Helpers, cleaners, street vendors etc.	5.7	3.9
Total number of person-months	30 553 329	32 720 558