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#### Family Policies and Women's Labor Force Transitions in Connection with Childbirth

By Siv Gustafsson and Cécile Wetzels\*

#### Summary

In this paper we use panel data from Sweden, Germany, and Great Britain to analyze women's labor force behavior in connection with childbirth. We first discuss differences in family policy among the three countries and then derive hypotheses about behavioral differences based on the policy differences. We show that policy does influence behavior. For example, British mothers return to market work earlier than in the other two countries probably as a response to the short protection period. Another example is that the proportion of ''career mothers'' is larger in Sweden, with its equal role sharing model of family policies, than in Germany, where the breadwinner model determines family policies.

#### 1. Introduction

In this paper we analyze labor force transitions in connection with childbirth in three countries: Germany, Great Britain, and Sweden. Panel data allow observation of behavior before and after an event, in this case childbirth. We observe some women before and after they have had their first child. Others are observed for the first time after their first and before their second birth. The samples have been selected to include only women who gave birth to a child during the observation period, since we are primarily interested in observing the mother's labor force behavior before and after a birth. Data for Sweden are drawn from the Household Market and Nonmarket Activities Survey (HUS) (see Klevmarken and Olovsson 1993 for a description), for Germany from the German Socio-Economic Panel (GSOEP) (Wagner, Schupp, and Rendtel 1991) and for Britain from the British Household Panel Study (BHPS) (Taylor 1992). For Sweden we observe from 1984 to 1991, for Germany from 1983 to 1992, and for Great Britain from 1980 to 1992.

#### 2. What Can We Expect?

We have been very much inspired by Esping-Andersen's (1990) discussion of welfare state typologies. Traditionally economists develop theories about the effects of state involvement on individuals' behavior. In fact most day care studies are of this type: do we see more female labor force participation if day care is more heavily subsidized? Do we see higher fertility when day care is subsidized? In Table 1 we compare our three countries according to the Esping-Andersen welfare state typology. We can say that in the family policy area Great Britain is a liberal welfare state. There is little state involvement in family policies and in this respect Britain resembles the United States. Similarly, day care in Great Britain is seldom subsidized and is mostly privately run. Parental leaves are short with little income compensation.

According to this classification Sweden and Germany are more similar and Britain more different. On the dimension of state involvement Britain certainly has the smallest. However, state involvement does not alone explain labor

#### Table 1

#### Type of Welfare State and Family Policy Regime

	Great Britain	Germany	Sweden
Esping-Andersen Typology	Liberal	Conservative-	Social Democrat
Family Policies:		Corporatist	
Public involvement in family policies	weak	strong	strong
Day care	private and market	kindergarten publicly organized subsidized	publicly organized subsidized
Parental leaves	short with small income compensation	long with income subsidy	long with income subsidy

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Table 2

#### Dimensions of Variation of the Breadwinner and the Individual Models of Social Policy

	More like Germany	More like Sweden
Dimension	Breadwinner	Individual model
Family ideology	Strict division of labor Husband = wage earner Wife = care provider	Shared roles Husband = wage earner/care provider Wife = wage earner/care provider
Entitlement	Differentiated among spouses	Uniform
Basis of entitlement	Breadwinner	Other
Recipient of benefits	Head of household	Individual
Unit of benefit	Household or family	Individual
Unit of contributions	Household	Individual
Taxation	Joint taxation Deductions for dependents	Separate taxation Equal tax relief
Employment and wage policies	Priority to men	Aimed at both sexes
Sphere of care	Primarily private	Strong state involvement
Caring work	Unpaid	Paid component

force behavior of mothers. It also depends on the intentions of state involvement. The gender aspects of the welfare state are analyzed in several papers in Sainsbury (1994). The most important result of these discussions is the distinction between the "individual" and "breadwinner" typologies in social policy.

Table 2 lists the differences between the breadwinner, or traditional one-earner family ideology, and the equal role sharing ideology. As with all typologies, the breadwinner typology does not totally coincide with a particular set of policies. Historically, German family behavior more closely resembles the breadwinner model than the individual model. The German income tax system favors married couples over single persons except for those two-earner couples earning almost equal incomes. Sweden, on the other hand, taxes couples as individuals with no right to transfer any unused basic deduction to the other spouse. On the dimension of the breadwinner and individual typology, Great Britain comes between Germany and Sweden, the two countries with substantial public involvement in family policies. Great Britain, in comparison to the other two countries, must be seen as a liberal welfare state with little public involvement in family policies.

#### 3. Actual Policies

Table 3 summarizes the family policies of the three countries. In taxation we have a clear breadwinner ideology in Germany with a large and transferable basic allowance. In Sweden there is a small basic allowance and it is not transferable. When it comes to taxation, Great Britain lies between Sweden and Germany in that it has one transferable basic allowance and one nontransferable allowance. The nontransferable allowance lowers the threshold for leaving the status of housewife and entering the labor force on a part-time basis.

There are no tax deductions for children in Great Britain or Sweden, again marking a step away from the breadwinner ideology. In 1996, the job protection period for parental leave lasted 24 months in Germany, 18 months in Sweden, but only 6.7 months in Great Britain. Therefore, some British wives may for economic reasons return to work when the child is only six months old.

The child benefits are greatest in Germany. At the same time, only about 9 percent of the kindergartens in Germany are full-day, whereas about 60 percent of Swedish preschool children receive full-day public day care. However, over 90 percent of Swedish parents make use of the paid parental leave provisions and care full-time for their child at home during the first year of the child's life.

#### 4. Economic Theory and Family Policies

Our theoretical approach is the following: we believe that human capital accumulated by the woman explains her

#### Family Policies in Germany, Great Britain, and Sweden

	Germany	Great Britain	Sweden
Taxation			
Taxation regime	Joint tax for couples since 1948	Couples taxed as individuals since 1991	Couples taxed as individuals since 1971
Basic allowance adults transferable	DM 5616	£ 1720 = DM 3800	None
Aduits nontransferable	No	£ 3445 = DM 7700	SEK 10 000 = DM 2200
Child allowance	DM 6264	None	None
Maternity and Parental Leave			
Job protection	24 months	6.7 months	18 months
Parental benefits	90 percent of earnings, 6 weeks at maximum; DM 600/month, 6 months; thereafter means tested	90 percent of earnings, 6 weeks £30, 12 weeks	75 percent of earnings, 15 months
Child benefit	DM 200/month, 1st and 2nd child, DM 300/month 3rd +	£ 10/week = DM 90/month 1st child = DM 70/month 2nd +	SEK 750/month = DM 170 al
Child care	kindergarten 64 percent of age 3-6, 9 percent full day	private	public day care, 51 percent 0-2, 60 percent 3-5, full day

labor force behavior, but that policy differences across the three countries make women with the same human capital behave differently in the three countries. Policies that facilitate the combination of market work with family responsibilities will increase labor force participation of mothers. Policies that subsidize income without simultaneously promoting market work will lower labor force participation, as will a husband's large income. Similarly, little income compensation or a short job security period may induce some mothers to reenter the labor force sooner than they wish. Swedish policies are pronatalist for career oriented women whereas German policies are antinatalist for such women. The policy differences may therefore have impacts on fertility as well as on labor force attachment.

#### 5. Timing of Entering Market Work after Childbirth

To fix the starting point we first analyze the labor force situation of the mothers-to-be 12 months before they gave birth. We assume that the future childbearing at this point has not had any influence on their labor force behavior. Comparing our three countries we find that the vast majority of women are in full-time work 12 months before giving birth. The figures for full-time work were for native German women in West Germany 75.6 percent, for immigrants in West Germany 48.2 percent, East Germany 83.0 percent, Sweden 56.9 percent and Great Britain 73.7 percent (Gustafsson, Wetzels, Vlasblom, and Dex, 1996, Table 3). Swedish women had a fairly high rate of parttime work 12 months before giving birth; 18.1 percent worked 25 to 34 hours per week and 12.5 percent worked less than 25 hours. The larger proportion of part-time workers among Swedish women can be explained by an individual taxation scheme in combination with progressive tax schedules which make the after-tax wage for part-time work larger on average than for full-time work (Gustafsson, 1992). Only in one case do we see a significant amount of unpaid work at home; as many as 27.4 percent of immigrant women in West Germany report this activity while never more than 9 percent of German, Swedish, and British women do so.

In Table 4 we find some interesting differences in returnto-work patterns among the five groups of women. The table shows the proportion of first-time mothers who have not entered (or reentered) the labor market by the number Table 4

Months since Birth	West Ge	West Germany			
	Native Germans	Immigrants	East Germany	Sweden	Great Britain
3 months	0.95	0.97	0.98	0.95	0.96
6 months	0.94	0.94	0.98	0.94	0.85
9 months	0.86	0.87	0.97	0.88	0.76
12 months	0.76	0.82	0.94	0.60	0.72
15 months	0.68	0.75	0.69	0.51	0.69
18 months	0.62	0.71	0.64	0.34	0.66
24 months	0.52	0.64	0.40	0.22	0.60
30 months	0.48	0.60	0.30	0.22	0.57
36 months	0.45	0.57	0.27	0.20	0.53
Number of observations	403	160	50	91	860

#### Proportion of First Time Mothers Not Employed According to Months Elapsed Since Birth

of months since birth. When the baby is three months old, we find almost complete devotion to the care of the baby in all groups. Nearly all groups show stay-at-home rates (employment rates) of around 95 percent (5 percent). This contrasts to behavior of recent mothers in the United States. Leibowitz, Klerman, and Waite (1992) find that as many as one-third of American mothers are back to work within three months after the birth of their first child. We pointed out above that a short job protection period and a small parental leave benefit might induce some mothers to reenter the labor force earlier than they would under a more generous program. In Great Britain the job protection period (6.7 months) and the parental leave benefit period are considerably shorter than in Sweden and Germany, and in comparison to the other groups of women we find the largest proportion of recent mothers leave the full-time homemaker status in Great Britain. After six months, it is 15 percent of first-time British mothers and after nine months it is 24 percent. After some length of staying home full-time with the child care and after the job protection period expires, many women prefer a combination of care and market work.

#### Table 5

#### Proportion of Second Time Mothers Not Employed

	West Ge	West Germany			
Months since Birth	Native Germans	Immigrants	East Germany	Sweden	Great Britain
6 months	0.94	0.96	0.86	0.93	0.84
9 months	0.89	0.93	0.86	0.87	0.75
12 months	0.85	0.89	0.77	0.67	0.72
15 months	0.80	0.84	0.59	0.51	0.67
18 months	0.76	0.80	0.53	0.41	0.63
24 months	0.67	0.76	0.37	0.27	0.55
30 months	0.63	0.69	0.27	0.22	0.47
36 months	- 0.56	0.62	0.21	0.16	0.42
Number of observations	290	119	44	105	559

Three months after the child's first birthday, Swedish mothers are just as likely to be working as not working, while around 70 percent of the other mothers remain at home. In fact, Swedish mothers have the highest labor force participation rate in the remaining periods of observation. Table 5 shows that return-to-work patterns after the second birth are very similar to those after the first birth.

In Table 6 we present proportional hazard models for the duration in months before entering market work for mothers after first and second births. The hazard is specified to depend on the mother's age, years of education, years of work experience, her husband's income, and an interaction of her age and experience. This last variable takes into account the fact that the same amount of employment experience might have different effects at different ages, or that at a given age different amounts of experience might have a different impact. Turning first to the results for Germany, we see that among native West German women at a given level of experience, the older the woman at child's birth, the later she returns to work. Entry to the labor market occurs earlier for women with more schooling and previous labor market experience. Income of the husband has a significantly negative effect; women with higher income husbands delay their entrance to the labor force. In a different regression not reported, we also included time dummies to capture the changes over time in the job protection period, but they turned out not to be significant.

Like native West German women, immigrant women in West Germany return to the labor force more quickly if they have more work experience. For native West German

Table 6

	West Ge	West Germany		
	Native Germans	Immigrants	Great Britain	Sweden
		After Fi	rst Birth	
Mother's age	-0.061 (-1.60) <sup>1)</sup>	-0.011 (-0.14)	0.007 (0.38)	
Mother's years of schooling	0.117 (3.13)	0.128 (1.39)	1.043 (1.74)	
Mother's work experience	0.211 (2.59)	0.863 (3.17)	0.090 (3.02)	
Husband's income <sup>2)</sup>	-0.118 (-2.03)	0.304 (2.16)	_	
Mother's age x experience	-0.004 (-1.62)	-0.025 (-2.30)	-0.002 (-2.74)	
Number of observations	339	138	835	
		After Sec	cond Birth	
Mother's age	-0.116 (-1.96)	0.021 (0.49)	0.052 (2.38)	0.206 (2.52)
Mother's years of schooling	0.188 (4.25)	0.206 (1.56)	0.013 (0.43)	0.013 (0.22)
Mother's work experience	0.053 (0.34)	0.489 (2.22)	0.069 (1.41)	-0.552 (-2.02)
Husband's income <sup>2)</sup>	0.003 (0.05)	-0.130 (-0.93)	_	0.009 (0.35)
Mother's age x experience	0.001 (0.23)	0.014 (1.97)	-0.003 (-1.75)	0.018 (2.29)
Number of observations	256	105	542	81

Proportional Hazard of Months Before Entering Employment

<sup>1)</sup> t-statistics are in parentheses. — <sup>2)</sup> Husband's income is measured before taxes in the survey nearest to the child's birth; BHPS does not give information on husband's income at time of birth.

Source: Authors' calculations using GSOEP, BHPS, and HUS data sets.

women, education is the most important variable; in contrast, we do not see a significant effect of education on participation by immigrant women after either the first or second birth.

The regression results for Swedish women show that education does not influence the timing of returning to the labor force. After the second birth, a mother's return to market work is delayed longer the older she was at the time her second child was born, holding experience fixed at the mean. The positive interaction effect between age of the mother and her experience indicates that, at ages above the mean, having more work experience reduces the delay before entering the labor market after the second birth, while the opposite is true at younger ages. For first births we do not find any significant results, perhaps because about 80 percent of Swedish women who have one child proceed to have a second child soon afterwards without reentering the labor market between births.

In contrast to German and Swedish mothers, British mothers return to market work sooner after the second birth the older they are at their second childbirth. In none of the countries is there any effect of the mother's age after the first birth. The British women's earlier return after second birth is consistent with other British studies, which have found that career oriented women who are also highly educated delay childbirth and return to market work more quickly when their maternity leave expires (Macran, Joshi, and Dex 1995). The variable that controls for the interaction of age and experience turned out to be significant for the first birth, revealing a positive effect of more work experience on return to work, but the effect declines with the mother's age at childbirth.

#### 6. Career Mothers

Some women are devoted to their careers and have decided to pursue their careers in combination with raising a family. We expect these women to have a stable labor force participation pattern. In Table 7 we analyze labor market participation using three different definitions for being a career woman. The first column gives the percent of mothers who were employed at all during the periods 3 months before and 24 months after birth. The second column uses a more restrictive definition, that the mother be employed full-time both 3 months before and 24 months after birth. Using either of these definitions, the proportion of career women is more than twice as high in Sweden than in Germany. In the third column we define career women as women who earned 40 percent or more of the combined earnings of the couple before and after becoming a mother. Using this definition, the labor market participation rate of Swedish mothers is more than three times larger than among German mothers at first birth and almost twice as large as among German mothers at second birth.

#### 7. Concluding Remarks

This paper shows that family policies do affect women's behavior. We began by characterizing family policies in Germany, Great Britain, and Sweden along two dimensions: first, the degree of government involvement and expenditure on family policies, and second, the degree of breadwinner orientation. Great Britain has the smallest government involvement, but lies between Sweden and Germany in breadwinner orientation. Short job protection

Table 7

#### Proportion of Career Mothers

	Any Employment Pre- and Post-Birth <sup>1)</sup>	Full-time Employment Pre- and Post-Birth <sup>1)</sup>	Women's Earnings Are at Least 40 Percent of Couple's Earnings Pre- and Post-Birth <sup>1)</sup>
Germany		· · · · · · · · · · · · · · · · · · ·	
First child	31.7	22.6	8.5
Second child	21.8	3.6	14.0
Sweden			
First child	49.1	22.6	35.9
Second child	37.7	8.7	27.5

<sup>1)</sup> Status Pre-Birth refers to the period 3 months prior to the birth. Status Post-Birth refers to 24 months after the birth. *Source:* Authors' calculations using GSOEP, BHPS, and HUS data sets.

periods and small compensation for maternity leave apparently induce some British women to return very quickly to the job market in comparison to the other two countries. The Swedish equal role sharing model for family policies makes a more continuous work career a more feasible option for Swedish women compared to German women. In this paper we focused on labor force behavior in connection with childbirth, but there are many other individual decisions that may be affected by the family policies described here. Total fertility rates, and the timing and spacing of births are also likely to differ in a systematic way because of policy differences across countries. Furthermore, the breadwinner regime assumes that the one wage earner continuously supports his or her spouse for the duration of their relationship. Therefore, it is logical that in countries where regulations oriented toward one-earner families create barriers to the wife's market activities it also is more expensive for the wage earner to divorce the caregiver. A comparison of Germany and Sweden provides support for this claim: the ex-wife is often given an alimony in Germany while this is very rarely the case in Sweden, where both men and women are assumed to be able to provide for themselves by working in the labor market. Comparing family decisions across countries with different policies, therefore, suggests a variety of research topics in the field of the economics of the family.

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