Women's labour force participation after first birth in Sweden in 1980-2000

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Abstract

Recent patterns of women's return to work are studied using a new data set (Swedish Level of Living Survey 2000). Women's labour supply is affected to a larger extent than men by their reproductive role. Mothers of small children have lower labor force participation rates than other women at labor-active ages. It is therefore relevant to identify the latest developments for groups with relatively low participation rates. Our results indicate that women return to employment later in the 1990s than in the 1980s. This is explained by the gradual extensions in the parental leave benefits for all working parents. Father's take up of parental leave increases the possibilities for a shorter work interruption for the mother. The absence of education differentials in the patterns of return to work is explained by the wide acceptance of the mothers' time out of work for reproductive reasons by the employers of any economic sector.

People's demographic behaviour (such as family formation and childbearing) and their situation on the labour market can be studied from several angles: our project focuses on family formation and childbearing and their impact on participation on the labour market.

We will focus on the differentials in the timing and likelihood of women's return to work. Our aim is to investigate the impact of social and economic inequalities on the work attachment behaviour of different groups of mothers. Such inequalities (reflected by educational level and labour market position) could imply differentials in opportunities and constraints in women's patterns of return to work after childbirth. Social-class differences in occupation are suggested to be a major source of variation in women's labour market outcomes after childbirth (McRae, 1993), which could strengthen the inequalities between families in the years following childbirth (Saurel-Cubizolles et al, 1999).

The Swedish labour market situation in the 1990s and women's labour supply after childbearing

The 1990s are featured by a strong decline in the number of employed people with a permanent contract and a corresponding increase in the number of employed with temporary contract (see Table 1). Generally the share of active people, both men and women, has also decreased in this period. The question is whether the people's behaviour is affected by such developments? Do women who are eligible to the parental leave delay return to work until the end of the leave? They could delay return because they have a secure position on the labor market. What is the work attachment of those women who did not work before childbearing?

In an international perspective, Sweden has relatively high LFP rates for women with children. However, there are significant differences between different groups of women, and such differences we want to highlight in our study. Three groups have lower participation in Sweden: parents of small children (under three years); single mothers (see Table 2); and immigrant mothers. Mother's labor market participation by age of child is relatively high in Sweden compared to other west-European countries (Eurostat 1998): 86% lfp rates for mothers of children below 3 years and 91% for mothers of children aged 3 to 6 years. The corresponding rates in Spain are 40 and 44 percent, and 61 and 69 percent in France. Belgium and Italy have 78% and 75 % of mothers at work two years after childbirth (Gutierrez-Domenech 2002). The share of working mothers in Sweden has gradually increased over time, from 60 % active women one year after first birth in 1975-80 (Bernhardt 1993) to 66 % active mothers two years after birth in the 1980s (Gutierrez-Domenech 2002). Ten years after childbirth the share of those working is even higher, reaching three out of four women.

Recent findings

Many studies have studied the short and long-term impacts of women's career interruption around childbearing for their professional career, income and pension opportunities (Joshi et al. 1996, Gustafson et al. 1996, Albrecht et al. 1999). It is an established finding that women as a group and individuals lose earnings by interrupting their job. In some countries, with advanced welfare measures such as Sweden, the lost earnings are less important than in other countries (Albrecht, Edin, Sundström and Vroman 1999). Albrecht et al. 1999 show that women with higher education are especially affected by work interruption due to parental leave. One of the rational strategies employed by working mothers would be to shorten such periods of career interruption and return sooner than other women after childbearing. Previous

research for Sweden shows that women with higher education return sooner to work than women with lower educational attainment (Rönsen and Sundstrom 1996, Jonsson and Mills 2001). Higher educational level increases the rates of entry into part-time employment (Korpi 1989). For Spain, recent research shows that education has positive effects on return to work for first mothers and after the second birth (Gutiérrez-Domènech 2001).

Work experience was found to act in different ways according to whether the woman returned to work full-time or shorter hours. For example, increased work experience before childbirth reduced the rates of entry into full-time employment (Korpi 1989). Strong negative effects of unemployment were found in Sweden for first-time mothers and for full-time entries for second-time mothers (Rönsen and Sundström 2002).

Age effects: as expected entry into employment increases at later ages (Korpi and Sweden). International studies come to varying results (for France age reduces return to work (Gutiérrez-Domènech M 2001); in Spain older mothers return sooner than younger mothers after the first birth Saurel-Cubizolles et al 1999).

Civil status: During the 1970s, married women returned at longer durations than cohabiting women (using FFS 1981, see Bernhardt 1993 and Korpi 1989). Rönsen and Sundström (2002) did not find very large differences between married women and those living in consensual unions (using the Swedish FFS 1992).

The effects of family policy measures (take up of parental leave and day care services)
In the Swedish Fertility and Family Survey of 1992, the female respondents took in average about 14 months of parental leave (the take up of parental leave for male respondents was two weeks). The effects of taking up parental leave were shown to be more negative for men's future wages than for women (Albrecht et al.1999). Women were less affected by their time out of the labor force, probably because employers are more ready to accept the work interruption by female employees than by their male colleagues. Albrecht et al.1999 also show stronger negative effects for highly educated women who took parental leave on their subsequent wages than for women with lower educational level.

Extended parental leave appear to delay mothers' return to work (Rönsen and Sundström 2002). Swedish women who were eligible to parental leave had higher rates of return to work within a period of three years after birth than women who were non-eligible; they also had higher return rates to part-time work. Women who were entitled to parental leave benefits returned to work to a higher extent even during the leave period (one explanation could be that more fathers in such families shared the benefits and stayed at home for some period). Finnish women had much higher return rates to full-time work.

Local provision of day-care services: positive effects on full-time entry among first-time mothers; and on part-time entry among second-time mothers for Swedish mothers (Rönsen and Sundström 2002).

Our approach in this study is to focus on the situation around first birth, before and after childbearing. We investigate the most recent developments using a new dataset. The aim is to uncover social inequalities in the participation on the labor market, measured by a set of human capital factors: educational level, situation and position on the labor market prior to birth and after birth; sector of activity, socio-economic status. We apply a gender perspective to the analysis, measured by two variables.

Relationships between people's demographic behaviour (such as family formation and childbearing) and their situation on the labour market can be studied from several angles, such as: 1) family formation and childbearing and their impact on participation on the labour market; and 2) active labour force participation and its impact on childbearing. Our project about return to work after childbearing is part of the first area of study.

We assume the time-out of the labor force around the first birth is related to childrearing. However, for a few mothers, other factors such as health problems could also explain the time-out of the labor force. Some women could have health complications caused by the pregnancy. Respondents are asked to report health problems during the 12 months period preceding the interview.

Data

The data are taken from the retrospective life and work histories collected as part of the Swedish Level-of-Living Survey (LNU Levnadsnivåundersökning) of 1991 and 2000, organised by SOFI at Stockholm University. This panel has started 1968 on a 1 in 1000 population sample (6524 persons). It was repeated 1974, 1981, 1991 and 2000 (for more information, see Jonsson and Mills 2001). Of the people in the original sample, 2783 people have participated even at the survey of 2000. The response rate in 2000 was 79 percent, producing 5142 interviews. The highest response rate was obtained in the young sample, and the lowest response rate in the immigrant sample. The dataset contains rich information about the respondents' retrospective histories of education, employment, childbearing, marriage and cohabitation, as well as other social background information.

The data set has several new features which makes possible to include gender issues. We have information on the father's take-up of parental leave for each child, and on how the parents share the household chores and childcare responsibilities among themselves. Future analyses could include ethnic issues.

Recent patterns of return to work, socio-economic inequalities, and gender differentials

We investigate the most recent patterns of work patterns after childbirth for Sweden (for the 1990s) and compare with earlier findings (for the 1980s). Previous results for Sweden report childbearing related patterns of return to work for the period up to 1992. We investigate the impact of several socio-economic factors on women's work patterns after childbirth. Such human capital variables include: educational attainment at first birth, employment position, the industrial sector/branch of the employment (according to SNI Svensk Näringsgrens Indelning), type of occupation and contract (permanent contract or temporary contract, full-time and part-time employment). The variables referring to occupation are measured at first birth. We apply a gender perspective in our analysis by including two gender-equality measures. We analyse the impact of the father's take-up of parental leave on the mother's return to work. The information is however limited: we have no information on the father's take-up of parental leave for children born 1982-2000 who are not living in the household at the interview (in LNU 2000). Another gender-equality measure is the sharing of the household and childcare responsibilities between the parents (future analyses). Does the mother return to work sooner after childbirth if the father shares more of the household and childcare responsibilities? Future analyses might include ethnic differences in the return-to-work behaviour (however, the sample of immigrants is small).

Method and variables

The methods of event-history analysis, i.e. life-tables and hazard regression models, are employed. Patterns and changes in the process of women's return to work after childbirth are illustrated with life tables. Note that we include in our data set those women who had no work experience before birth but had found a job after childbearing. We produce, for example, life-table estimates by completed education of the proportion of women who resume employment after first birth. Hazard regression models are used to investigate the factors that influence the timing and the likelihood of women's return to work.

Variables

Age at first birth is grouped into following categories: 18-23 years, 24-28 years and 29 years and above.

Human capital variables

Educational level at first birth is grouped in the following five categories: compulsory school, vocational training; gymnasium, brief post-gymnasium and university.

Type of activity before birth is grouped in following categories: has worked, studies or unemployed, housework or other, and has never worked.
Socio-economic status is grouped in the following groups: 1) managerial and profesional occupations, 2) white-collar (clerical and technicians), at lower and middle levels, 3) self-employed, employers, and 4) blue-collar workers, skilled and non-skilled.

Industry sector is grouped in the following categories (according to SNI Svensk Näringsgrens Indelning): 1) agriculture, mining, electricity, and natural gas, 2) commerce and service, 3) finance and post communications, 4) public sector.

Sector of employment has the following levels : public, private sector, has never worked, was not employed before childbearing and other.

Family policy measures

We use several factors to pick up possible family policy impacts on return-to-work behavior: period of birth, father's take-up of parental leave and mother's take-up of parental leave. Period of birth is grouped into three categories: 1980-88, 1989-94 and 1995-2000.

Father's take-up of parental leave is grouped into the following categories: 1) no leave, 2) have taken up to one month, 3) have taken longer than one month, and 4) missing or unknown.

Mother's take-up of parental leave is grouped into the following categories: 1) no leave, 2) up to one month, 3) longer than one month, and 4) missing or unknown.
We try to pick up the effects of the macro-economic conditions on women's return to work.
To this aim, we use annual national rates of unemployment from 1980 and up to 2000 (results are not reported here).

Empirical findings

We have a working sample of 757 women at ages 18 to 75 years. We present life tables for women who had their first birth after Dec. 1979 and have records in the employment history (see Fig. 1). We include in the analysis women who have never worked prior to the first birth but worked after childbearing. Women who have never worked before the interview or who had over 15 jobs in LNU1991 are excluded. Births to very young women are also excluded (women who were younger than 18 years at first birth), because they have lower possibilities than other women to establish themselves in the education and labour market systems before entering motherhood. We have 335 first births produced in the 1980s and 422 first births produced in the 1990s. Only biological children are included in the analysis. We have grouped the women in three age-groups (see Fig. 2): 1) below 24 years (196 persons), 2) between 24 and 29 years (323 persons), and finally, 3) 30 years and more (238 persons).

Period effects: The life-table analysis shows that the return to work is generally slower for women with births in the 1990s than for those who bore their first child in the 1980s (see Fig. 1). The gap is larger for the interval 12-18 months after delivery and narrows significantly at larger post-delivery durations. The larger gap at about one year after delivery is in line with the results of previous studies showing that the extension in parental leave benefits leads to postponement of return to work.

Age differentials: We find substantial age differentials in the work patterns after childbirth. Women who delayed childbearing (women aged 30 years and over) show a slower "return to work" than women with a first birth in their mid-twenties, at intervals below 15 months after birth (see Fig. 2). About 47 percent of women in their "thirties and over" have started to work again within 15 months since delivery. The corresponding shares are 53 percent and 37 percent for those in mid-twenties, and respectively, early twenties. The return to work of women in their "thirties and over" is speeded up at longer intervals than 15 months (and especially at intervals longer than 24 months and over). Fifteen months is a threshold level, as it overlaps with the termination of the parental leave benefits (at levels close to the income replacement level). The data shows that younger mothers return to work at longer durations: half of the young mothers return at intervals higher than 20 months, whereas for the other two age groups, nearly three out of four mothers have already returned to work at such intervals.

Effect of education: We found small educational differences in the patterns of return to work. Mothers with a longer educational formation have somewhat higher rates of return to

work than mothers with shorter educational formation, but the results are not statistically significant. Women with university education have 1.3 higher risks of return to work than women with compulsory education (see Table 3). These findings are in line with similar research done on Sweden but using a different data set (HUS Household surveys) and reported by Gustafsson et al. 1996 and Kenjoh 2003.

Summary of results

Mothers with a longer educational formation have higher rates of return to work than mothers with shorter educational formation, but the results are not statistically significant. The small differentials by educational level in the patterns of return to work could be explained by the fact that both private and public employers widely accept mothers' time out of work for reproductive reasons.

Work experience before childbearing is very important for the pathways taken after childbirth. Those that have never worked before childbirth have much lower rates of employment after birth than those who were already established on the labor market at birth. Similar findings were reported in other national settings, but the patterns are probably stronger in Sweden, where the connection to the labour market has become almost a precondition to enter motherhood, because parental benefits are connected to work experience.

Mothers return to work at longer durations in the 1990s compared to the 1980s. This was made possible by the repeated extensions in the parental leave benefits. Our findings are in line with earlier results reported by Rönsen and Sundström (2002). Fathers' take up of parental leave increases significantly the possibility of the mothers to return to an active life outside the household.

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Tables

Table 1. Employed persons, by degree of attachment to the labour market, 1990-2000, Sweden. Percent of all employed.

Kön Sex Ålder Age	Fast anställda Permanent employees		Tidsbegränsat anställda Employees employed for a limited period		Sysselsatta Total employees	
	1990	1999	1990	1999	1990	1999
Women 25-29 years	70	48	13	21	85	72
Women 30-34 years	75	60	9	14	89	78
Men 25-29 years	75	61	8	13	90	80
Men 30-34 years	77	66	5	9	93	85

Source: SCB 2002, Statistisk årsbok, p. 255.

Table 2. Mother's employment according to family type and the age of her youngest child, Sweden, 2002. Percent.

Family type, age of the child	work short part-time	work long part-time	work full- time	Total work	On paid leave	unemployed	Not active	total
single parent child 1 year old	2	12	**15**	**29**	12	7	**53**	100
cohabiting child 1 year old	3	21	**25**	**49**	27	4	**21**	100
single parent child 2-3 years	4	24	22	49	9	8	**34**	100
cohabiting child 2-3 years	3	24	29	56	23	3	19	100

Source: SCB Barn och deras familjer 2002. Demografiska rapporter 2003:7, page 111.

Table 3. Relative risks of employment after childbearing

Variables	Relative risks
Age at first birth	
18-23 years	1
24-28 years	1.39**
29 years +	1.22
Period	
1980-1988	1
1989-1994	0.74**
1995-2000	0.79
Mother's take up of parental leave	
Has taken some leave	1
No leave, unknown, missing	1.03
Father's take up of parental leave	
No leave	1
Up to one month	1.22
More than one month	1.87**
Unknown, missing	1.46**
Educational level	
Compulsory school	1
Vocational training	1.38
Gymnasium	1.32
Brief post-gymnasium	1.43*
University	1.29
Activity before childbirth	
Work	1
Studies or unemployment	0.41**
Housework or other	0.46**
Has never worked	0.12**

Notes: *statistically significant at 5 % level; ** statistically significant at 1 % level.

Table 4. Interaction effects period*age at first birth

Age at first birth	Period		
	1980-88	1989-94	1995-2000
18-23	1	0,89	1.33
24-28	1.96	1.01	0.99
29+	1.03	1.17	1.2

Notes: Standardised for: type of activity before the first birth; educational level; mother's take up of parental leave; and father's take up of parental leave.

Table 5. Interaction effects period* type of activity before first birth

Type of activity	Period		
	1980-88	1989-94	1995-2000
Has worked	1	0.68	0.71
Studying or unemployed	0.24	0.32	0.33
Housework or other	0.35	0.34	0.69
Has never worked	0.08	0.13	0.12

Notes: Standardised for: age at first birth; educational level; mother's take up of parental leave; and father's take up of parental leave.

Table 6. Interaction effects period* father's take up of parental leave

Father's take up of parental leave	Period		
	1980-88	1989-94	1995-2000
No leave	1	1.11	1.47
Up to one month	1.66	1.07	1.21
Longer than one month	2.27	1.92	1.69
Missing or unknown	2.17	1.11	1.02

Notes: Standardised for: type of activity before the first birth; educational level; and mother's take up of parental leave.

Fig.1. Cumulative proportion of returning to work after first birth, by time period

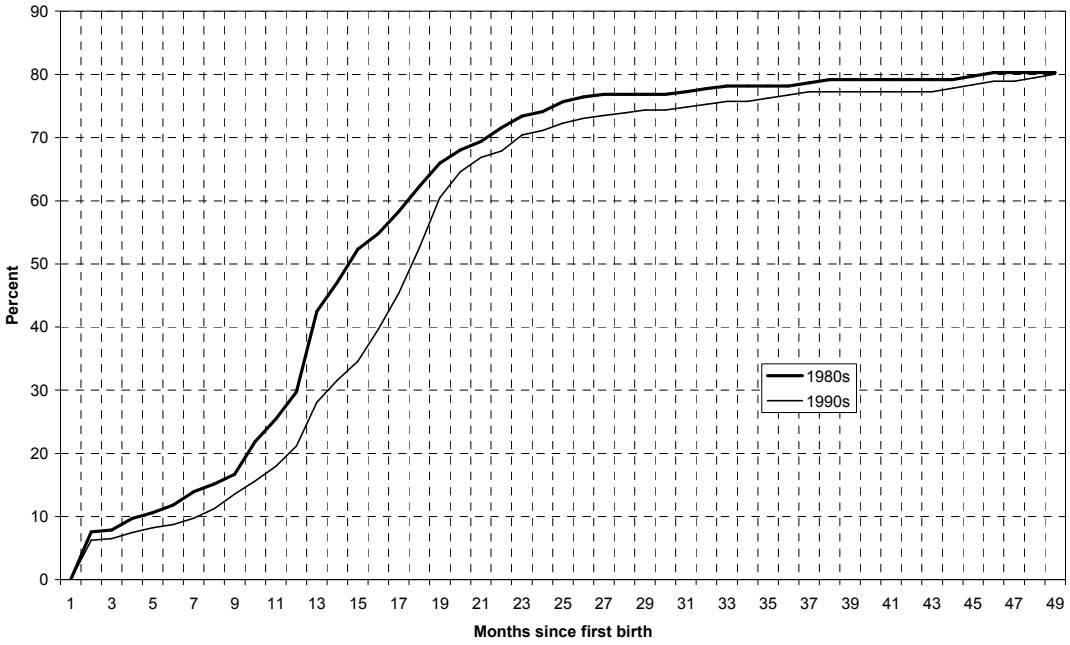

Fig.2. Cumulative proportion of Swedish women returning to work after first birth, by age.