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CONTINUED HOME ATTACHMENT VERSUS TRANSITION TO EMPLOYMENT:
AN INTENSITY REGRESSION ANALYSIS OF SWEDISH ONE-CHILD MOTHERS

by

Eva M Bernhardt

University of Stockholm
Section of Demography
S-106 91 Stockholm
Sweden

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Abstract

This paper analyzes the simultaneous influence of background factors such as educational level and civil status on the subsequent work life transitions among women who remained at home one year after first birth. The analysis is limited to non-pregnant one-child mothers, whose child is less than 5 years old.

Fitting hazard models separately to the transitions to full-time and part-time work respectively, results in fairly similar final models for the two transitions. Social background has no significant impact on the propensity of one-child mothers to stop being full-time housewives and return to the labour market, except via the intervening educational variable. Length of education at the time of first birth is, however, a strongly influential factor, with highly educated women (four years or more after the age of 16) about three times as likely to start working, either part-time or full-time, than women with shorter education.

Civil status has no impact on the transition to part-time work, but cohabiting women are more inclined to start full-time work than are married women. Early labour force withdrawal has a depressing effect on the propensity to start working again among home-attached one-child mothers. This effect is stronger with regard to part-time work, indicating that women who stop working more than three months prior to first birth are not interested in the "compromise" of part-time work combined with housework and childrearing. They intend to stay at home for an extended period of time and not work in the interval between births.

The analysis is based on data from the Swedish Fertility Survey in 1981, in which 4 300 women between 20 and 44 years old were interviewed.

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1. Introduction

The causal nature of the empirically observed relationship between women's economic activity and reproductive behaviour is a much debated issue (see for example Cramer, 1980, Sweet, 1981 and Oppenheimer 1982). The increasing propensity of women with small children to be in the labour force is often considered to be one of the major reasons behind the decline in fertility which has taken place in virtually all industrialized countries over the last 15-20 years. If there is some truth in this proposition, it ought to be particularly valid in Sweden, where the level of economic activity among women with children is unusually high.

This paper attempts to analyze in some detail certain aspects of the causal connection between the arrival of the first child and the subsequent work behaviour of the mothers. It is a part of a larger research project¹, the aim of which is to analyze the interaction between labour force participation and fertility over the life cycle.

In a previous paper (Bernhardt, 1986) the factors influencing the probability that a woman is still at home one year after the arrival of her first child were analysed by means of logistic regression. This paper presents the results of an analysis of the subsequent transitions (if any) in the period following the child's first birth-day among "housewives", i.e. women who were still at home one year after delivery. Transitions among one-child mothers who had gone back to work within one year after first birth will be studied in a later stage of the analysis.

Data from the Swedish Labour Force Survey (Statistics Sweden, 1981) show that mothers with young children (youngest child

1) "Life cycle phases of Swedish women: A study of education, labour force participation and childbearing among Swedish women born in 1936 to 1960".

under 3) do participate in the labour force to a not insignificant extent. Counting only those who were actually at work (i.e. excluding mothers who were absent from work, for example because of paid maternity leave), the proportion increased from 30 percent in 1970 to 39 percent in 1980. During the 1970's there have been substantial improvements in the rules and benefits relating to maternity (see for example Bernhardt, 1983, or Adams and Winston, 1980), resulting in an increasing proportion of mothers with young children belonging to the category "absent from work during survey week", i.e. they have a job but they are not at work.

Such overall figures give, however, a blurred picture of the impact of the transition to parenthood on women's work activity. Results from previous studies (Bernhardt, 1983) show, for example, that the impact of the first child differs from that of subsequent children. Neither do the overall figures from the Labour Force Survey enable us to analyze the differential pattern of sub-groups of women, i.e. to study the influence of different background factors, such as the woman's educational level. It is well-known, for example, that highly educated women have a higher propensity to participate in the labour force (Bowen and Finegan, 1969, Ljones, 1979, Jensen, 1983, and Bernhardt, 1983).

The previously undertaken study of women's home attachment at first birth (Bernhardt, 1986) revealed that the probability of still being at home one year after first birth is strongly influenced by the educational level of the woman. Highly educated women seem to have established a pattern of low home attachment already in the mid-1950's, while women with less education exhibit a decreasing tendency to remain at home one year after first birth. For women with a medium level of education there is, however, a slight reversal of this downward trend at the end of the 1970's².

2) Observed frequencies among women with no prior labour force withdrawal:

<u>-1967</u>	<u>1968-74</u>	<u>1975-78</u>
54.8	39.5	41.5

In addition to length of education, the probability of re-maining at home one year after first birth was also found to be significantly affected by marital status (married women having higher degree of home attachment than women living in unmarried cohabitation), early labour force withdrawal (if the woman stopped working more than three months before delivery, she was more inclined to stay at home for at least one year after the birth) and union duration at first birth (women already pregnant when they started living with a man had higher propensity to stay home one year after first birth). Social background, on the other hand, was not found to have any significant effect by itself in any educational group.

Comparing the periods before and after 1968³, it was found that the effects of education and civil status were significant in both periods, but their importance seems to have decreased over time. After 1968, but not before, women who were pregnant at the start of a family union were significantly more inclined to remain at home for at least one year after first birth, than were non-pregnant women. This may be interpreted to mean that modern contraception and free abortion have strengthened the mechanism which selects women or couples with little motivation to prevent an early pregnancy, something that would tend to be associated with weak work commitment.

Women who have not gone back to work within one year after their first birth may be planning to have a second child without working in the interval between births. The construction of maternity benefits in Sweden has, however, lead to a situation where there are strong economic incentives to be employed prior to a childbirth. Since 1974, all women receive some payment after childbirth, but the sums paid to those without at least 6 months employment immediately prior to the birth⁴ are substan-

3) The year 1968 is then taken as a rough dividing line between the era of less efficient contraception and strictly limited availability of legal abortion and the era of modern contraception (pills and IUDs) and free abortion. Besides there might be a mental dividing line with respect to for example sex role attitudes.

4) Pregnant women are entitled to stop working and receive maternity benefits from 3 months prior to delivery.

tially lower than those paid to employed women, who receive 90 percent of their prior wage.

2. Mothers and paid work - some facts and theories

In a modern, industrialized and (comparatively speaking) egalitarian society like Sweden, women who are not at school, are expected to work in the labour market as long as they don't have children. Having the main responsibility for (small) children or being enrolled in school are two common and socially acceptable reasons for not being in the labour force. Marriage is not. In Sweden an overwhelming majority of women work up to the arrival of their first child (Bernhardt, 1984). This tendency is stronger the more education the woman has, and it has strengthened over time. Among women born in 1946-50 only 8 percent became housewives more than six months before the birth of their first child.

Likewise, it has become relatively rare that women stay at home as housewives for an extended period of time. Among women who had their first birth in 1960-64, 37 percent were still housewives six years later, i.e. by the time their (oldest) child was about to start school. Ten years later, i.e. among women who had their first child in the early 1970's, the proportion "continuous housewives" had decreased to 19 percent (Bernhardt, 1984). This means that combining paid work and responsibility for pre-school children is quite a "normal" experience for Swedish women. Most women do, however, interrupt their work at the time of delivery, and since the rules for maternity leave (paid or unpaid) are quite generous in Sweden, this work interruption may extend for quite some time (in some cases well over a year), while the woman keeps a job that she (may) intend to return to.

The temporal separation of work and maternal activities is still fairly strict in most western, industrialized countries, even if it has lessened over the past decade or decades. On the

arrival of the first child (an event which occurs to an overwhelming majority of women), women face the choice of giving up work or trying to combine the two roles of mother and worker. It is our hypothesis that due to the combination of several factors in the Swedish society⁵, it is easier for Swedish women to opt for the latter alternative than for women in most other countries. Since 1963 they have had a paid maternity leave of at least six months (provided that they did hold a job prior to the delivery). Although formal rules have not always been quite so generous for all women as they are now (since 1979 all women have the right to be on maternity leave for up 18 months⁶), in practice many women have been able to keep a job for quite some time, while they are at home taking care of their newborn baby.

While extended work interruptions in connection with childbirth have become possible (and common), this does not mean that Swedish women are free to leave and return to the labour force at will. Women who (for various reasons) want to keep their jobs have to go back to work once their maternity leave is over. It is our impression that with the tighter labour market toward the end of the 1970's (and even more so in the 1980's), women have increasingly felt the pressure to keep an attachment to the labour market. Even though part-time work has become common, the ease with which a part-time job can be had certainly varies with the type of job and the type of employer (for example, it used to be a lot easier in the government than in the private sector of the economy⁷). Thus the statement that "leaving and returning to the labor force at will is fundamentally something of a luxury and one that requires rapidly expanding job opportunities of a particular type" (Oppenheimer, 1983, p.399) would seem to hold also for Swedish women, al-

5) Particularly the possibility of extended maternity leave, the availability of public day care and the possibility of working part-time.

6) Although only 12 months with economic compensation.

7) Since 1979 all parents to pre-school children are entitled to shorten their working hours (with a subsequent cut-down in income).

though possibly to a lesser extent than in many other countries.

Oppenheimer (1982) has worked out the theory of "adaptive family strategies", according to which the couple faces two major "life-cycle squeezes", which give rise to the need for an additional income. The first one occurs at the time of setting up a household and getting ready to start a family (while the young husband may still have a relatively low income). The second one occurs when there are (non-working) teenagers in the home, while the husband may face a declining (or stagnating) income. The second squeeze falls outside of the focus of our interest here, but the first life-cycle squeeze may well be of some relevance.

That Swedish women usually work up to the arrival of their first child may be interpreted as one way of easing the first squeeze. The sharply declining proportion of women who remain at home one year after the first birth (Bernhardt, 1986) may indicate the continuation of the squeeze beyond the actual setting up of a household. If, for example, the couple has borrowed money to buy a home and/or expensive household equipment, the payment of installments may well require two incomes in the family. Unfortunately, our data set did not contain any information on the economic situation of the family, except at the time of interview. Neither do they permit any analysis of the motivations behind the various transitions to or from the labour force. Nordenstam (1984) has analysed the answers to an attitudinal question in the Swedish fertility survey, which show that in general Swedish women view their gainful employment positively. Most of them assert that their jobs offer positive values beyond their economic yield. The women with the most difficulty in identifying these non-economic values are those for whom the economic benefits are primary - single mothers and those with little education.

Jensen (1983) discusses in some detail the issue of "choice or necessity". She puts forward the hypothesis that there are two main "streams" of women from the home to the labour market. One stream consists of women who work primarily because the family

economy depends on an additional income (Skrede and Sørensen, 1982, argue that in some cases the gainful employment of the wife may represent dividing line between poverty and a reasonable living standard), the other stream consists of women who have from the start organized their lives so that a more or less continuous attachment to the labour force will be possible. This organizational principle almost always means getting an education beyond the compulsory level (frequently a post-secondary education).

Are women either family-oriented or work-oriented? This is the dichotomy used in an analysis of the motives of West German one-child mothers for or against a second child (Urdze and Rerrich, 1981). The notion of a basic orientation refers to expectations developed by the individuals during childhood and adolescence concerning what will happen to them later in life. Family-oriented women regard paid work as something transitory and marriage and children as indispensable, while work-oriented women regard gainful employment as a life goal and marriage and children as possibilities. Contrasting this basic orientation with the current expectations regarding work and family, several "standard types" of women crystallized, for example the "convinced housewife", the "obstructed housewife", the "housewife in conflict", the "convinced career woman", the "professional mother" and the "work-tired mother". These groups seemed to differ with regard to expected number of further children.

What then is a "housewife"? Oakley (1974) provides the following definition: "the characteristic features of the housewife role in modern industrialized society are (1) its exclusive allocation to women, rather than to adults of both sexes; (2) its association with economic dependence, i.e. with the dependent role of the woman in modern marriage; (3) its status as non-work - or its opposition to 'real', i.e. economically productive work, and (4) its primacy to women, that is, its priority over other roles".

The women in our analysis are housewives in the sense that they are at home, and not at work, one year after the birth of their

first child. It is unlikely that very many of these new mothers anticipate being a "full-time housewife" for the rest of their lives. Some may already at this point in time have definite plans for a return to labour market⁸; for others this is a also highly likely event, but one that lies further ahead in a more or less foggy future. We don't know what their intentions were at the time - we can only study their actual behaviour. The purpose of the analysis reported here is thus to find out which background factors that influence the propensity to start working again in the following 3 or 4 years, provided that the woman has not become pregnant with her next child. The analysis is thus limited to non-pregnant one-child mothers, whose child is less than 5 years old.

3. Data and methods

We have used data from the 1981 Swedish National Fertility Survey in which 4 300 Swedish women were interviewed. A detailed description of the data is found in Lyberg (1984). A substantial part of the interview was devoted to the work life history of the woman, giving month-by-month information on activity status (full-time employment, part-time employment, studies and housework being the main categories) from September of the year in which the woman reached the age of 16. The interview also contained the complete cohabitation and marriage history as well as information on all live births. The combination of these retrospective life histories make possible a detailed analysis of the interaction between the two parallel processes of labour force participation and childbearing. Factors influencing the transition to motherhood (first birth) and later steps in the family formation process have been analysed in

8) Of the women who were on maternity leave at the time of the interview in 1981 over 80 percent answered that they intended to start working again (in most cases part-time) before the child was three years old.

other reports from our project (B. Hoem, 1985 and 1986, and C. Etzler 1986). The influence of education on the transition from non-cohabitation to cohabitation or marriage has been analysed in a report of J. Hoem (1985).

All these reports use a common methodological approach, namely that of intensity regression (proportional hazard models), in which the simultaneous influence of several factors on transition intensities is analysed and their relative importance is established. The method is described in some detail in the previously mentioned report by J. Hoem as well as in a number of other recently published books or articles (see for example Trussell and Hammerslough, 1983, Allison, 1984, Tuma and Hannan, 1984, and Rodriguez, 1984).

Our study of the individual level factors which influence the subsequent work life transitions of women who remained at home one year after first birth also uses hazard models⁹. The covariates included were social background, educational level, early labour force withdrawal, civil status and the calendar period of first birth. An effort was made to include also type of education in five broad categories (general, administrative, teaching, health care and other), as it was felt that this could provide a proxy for type of work¹⁰. The information on type of education refers to the time of interview, and closer scrutiny of the data revealed that for many women this meant that they had obtained this education after the birth of their first child, i.e. the variable would be anticipatory. An additional problem was that we did not actually know whether the

9) The calculations were carried out using a computer programme called LOGLIN (version 1.64). This programme assumes that all covariates are categorical and that the base hazard is piecewise constant (time grouped data). LOGLIN automatically produces the current value of a max-log-likelihood and its degrees of freedom. The difference between the likelihood statistics for two nested models was used as a test criterion (using the chi-square distribution with degrees of freedom equal to the difference between the number of parameters for the respective models) of which model should be preferred.

10) Unfortunately our work life histories do not contain any information on the type of occupation that the women had at various points in time, only whether they were employed or not, and the number of hours worked per week.

paid work that the women had had during different periods was indeed within the sphere of the labour market for which they had had their training. Thus we were forced to discard this variable from the analysis.

The women in the study were classified according to the socio-economic group membership of the main breadwinner in the parental home (i.e. in most cases the father). Social background is thus a fix covariate. Originally seven categories were used, but in this analysis they were grouped as follows:

uw = unskilled workers
 sw+le = skilled workers and lower level employees
 mhe = middle and higher level employees
 f+e = farmers and self-employed

Early labour force withdrawal was defined as becoming a housewife more than three months prior to the arrival of the first child. While this was unusual behaviour among one-child mothers in general (only 15 percent of all women having a first birth stopped working more than three months before the delivery), it was relatively more common among the group of women analysed here, i.e. women who remained at home for at least one year after first birth, since early labour force withdrawal was one of the strongest factors influencing the degree of home attachment (Bernhardt, 1986). Of all one-child mothers still at home one year after first birth 30 percent exhibited early labour force withdrawal (but only 16 percent among the highly educated). The absolute number of observations in different categories is found in table A in the appendix.

Educational level is also defined as a fix covariate, i.e. it refers to the level obtained prior to the birth of the first child. It does not pertain strictly to the various levels within the Swedish educational system, but is a constructed variable which measures the number of months of education taken since age 16¹¹. The variable was grouped into three levels:

low = no more than one year of education

11) Strictly speaking, since September of the year in which the woman celebrated her 16th birthday.

medium = one to four years of education

high = more than four years of education

A further qualification for belonging to the highly educated was that some of this education must have been taken at the post-secondary level. For further details regarding the education variable, see J. Hoem (1985). Since the analysis in Bernhardt (1986) showed that among women with a medium level of education age at first birth had a negative impact on the degree of home attachment, this educational group was divided into two: women who were less than 23 years old at first birth and those who were 23 and over.

Period indicates the calendar year in which the woman gave birth to her first child. The same categories were used as in the analysis of the degree of home attachment at first birth (Bernhardt, 1986), i.e. before 1968, 1968-74 and 1975-80.

Finally, one time-varying covariate was included, namely civil status. In the analysis presented here we distinguish between two possible statuses, i.e. cohabiting (but not married) and married¹². It is possible to start as cohabiting and then get married, but women who are already married one year after the birth of their first child (about 80 percent of all one-child mothers in the sample) were only observed as long as they stayed married¹³. Likewise cohabiting women who separated from their partner were censored at the time of separation.

A total of 2 453 women were available for our analysis of the work behaviour of women in the period following the first birth-day of their first child. They are observed up to the point when they get pregnant with their second child, separate or start working (whichever occurs first). One year after first

12) 271 women were neither married nor cohabiting one year after first birth. As our intention was to analyse the behaviour of women with a real choice to stay home or start working, these women were excluded from the analysis.

13) An analysis undertaken of the effect of separation (from marriage or informal cohabitation) on the propensity of home-attached one-child mothers to start working showed that this effect is very strong. Separated women were almost six times as likely to take up a job as were married one-child mothers.

birth 6.6 percent of all women were already pregnant with their second child (see table C in the appendix). As our analysis here is limited to the behaviour of one-child mothers as long as they have not become pregnant again¹⁴, this means that only 2 290 women could be included in our analysis. Of those 1 287 were classified as being home one year after first birth. The transitions analysed in this paper are shown in figure 1. By "non-employed" we mean women who had themselves reported that their major occupation in a particular month was unpaid work in the home (taking care of the home and the family). This does not preclude that they may have been on extended (and usually unpaid) leave of absence from a job, or that they may have been involved in some part-time work of less than 15 hours per week. Such "side-line" work was reported separately, but has not been analysed here.

4. Results

4.1 Introductory remarks.

What is the most likely event that will happen to a non-pregnant one-child mother still at home one year after first birth? To start working (full-time or part-time) or to become pregnant again? In order to answer that question we have plotted the observed occurrence/exposure rates for these three possible

14) An analysis of the effect of the next pregnancy on the propensity of housewives to enter the labour market (including time before child 2 as a time-varying covariate) showed that becoming pregnant had a sharply negative effect on the woman's propensity to start working. Thus we could not detect any tendency on the part of one-child mothers to take advantage of the rules of the maternity leave, which stipulate that you have to be employed for at least 6 months immediately prior to a birth in order to get maximum payments after the birth. The relative coefficients were as follows:

time before second child		
>12 mo	12-9 mo	8 mo or less
2.41	1.00	0.31

events in figure 2, 3 and 4. The time periods refer to the calendar year in which the woman had her first child.

Women who had their first birth before 1968 were considerably more inclined to get pregnant again than to return to labour market. There was relatively little difference in the propensity to start part-time work or full-time work, respectively. The pattern is similar for women who had their first child in the 1968-74 period. The propensity to get pregnant has fallen, however, and women are slightly more inclined to start part-time rather than full-time work.

After 1975 there is, however, a major break with previous trends. In the beginning of the second year after birth women are more inclined to start working than to get pregnant. Thereafter, the propensity of women who are still housewives to get pregnant with a second child again overshadows their inclination to start working, but the difference is nowhere near that in the period before 1968.

Using these rates to calculate the proportion of "survivors" (in the life table sense), we find that five years after first birth about ten percent of the women were still at home and had not yet become pregnant with their second child (see figure 5). This holds true regardless of calendar period. However, taking account only of the transition to employment, we find that among non-pregnant women the proportion "survivors" has decreased sharply over the periods. This means that about half of the women who had their first birth before 1968, and who were still at home one year later, became pregnant again without working in the interval between births¹⁵, while this was true of only 15 percent of those who had their first birth in 1975-80.

As these estimates refer to women who were still at home one year after first birth, the proportion of all one-child mothers is even lower. Limiting the time perspective to three years after first birth, we find that the proportion of one-child moth-

15) We assume that they don't start working once they have become pregnant.

ers who get pregnant with their second child without working in the interval between births has decreased from about one-third to ten percent (table 1), while the proportion that has started working increased from about half to 80 percent. Assuming again that women who get pregnant with their second child don't start working during pregnancy¹⁶, this means that the proportion of one-child mothers who stay at home continuously at least up to the child's third birth-day has decreased from 53 to 20 percent.

Table 1. Women giving birth to their first child in different calendar periods, distributed by type of first event (employment or next pregnancy) occurring within three years after first birth.
Life table estimates, assuming unbroken marriage or cohabitational relationship. Percent.

Calendar year of first birth	Home at least until next pregnancy	Still at home and not pregnant	Some work experience
-1967	32	21	47
1968-74	18	14	68
1975-80	10	10	80

Note: The proportion women still at home one year after first birth has decreased from 65 to 48 to 42 percent over the observed periods.

To get a better understanding of the overall picture presented here, the next step in the analysis was to fit hazard models to the intensities measuring the work life transitions (h_1 and h_2 in figure 1). The results are presented below.

4.2 The transition to full-time work

The covariates included in the analysis were calendar period, social background, early labour force withdrawal, educational

16) See footnote 7 regarding evidence of the effect of pregnancy on the home-to-work transition.

level and civil status. The clock of the time variable starts ticking 12 months after first birth, and it stops four year later¹⁷. The intervening period is divided into five duration intervals (see table 4).

All pairwise interactions were tested. Only one was found significant, namely that between social background and duration. As the main factor of social background, taken by itself, was not found significant and the coefficients of the interaction did not, in our opinion, show any systematic or easily interpretable pattern, it was decided not to include this interaction term, despite its significance.

The remaining main factors were all found to significantly improve the fit of the model, and were therefore kept. The final model for the transition to full-time work thus included the main factors of calendar period, early labour force withdrawal, educational level and civil status. The relative intensities are shown in table 2.

Clearly there has been an increasing tendency over time for home-attached women with one child to start working full-time, prior to getting pregnant with a second child. The increase is particularly notable at the end of the 1970's. This would seem to run counter to an earlier finding (Bernhardt 1983) that during the 1970's a decreasing proportion of the two-year period following first birth has been devoted to full-time work. Observed proportions working full-time one year after first birth indicate an increase from the period before 1968 to the 1968-74 period, then a return to the previous level. At the same time there has been a very marked increase in the proportion working part-time one year after first birth. It would seem that among women who have a child-care period of at least one year after

17) The observation period had to be limited to four years as there was too little exposure time in the following duration intervals. In other words, the overwhelming majority of home-attached women have by then either started working or become pregnant with their second child.

Table 2. The transition to full-time work among home-attached women.

Final model. Relative intensities.

Calendar period	Before 1968	0.89
	1968-74	1.00*
	1975-80	1.50
Early labour force withdrawal	no	1.00*
	yes	0.66
Educational level	low	0.70
	mediumyoung	1.00*
	mediumold	0.86
	high	2.95
Civil status	cohabiting	1.80
	married	1.00*

* = base category

Note: The covariates are defined in section 3 above.

All covariates were significant at the 0.05 level.

first birth (something that has become increasingly uncommon), full-time work has not diminished its popularity; indeed, the opposite seems to have been the case¹⁸. One possible interpretation of this is that one "adaptive family strategy" that has developed among Swedish women (couples) towards the end of the 1970's with the improvement in maternity leave rules is the strategy of taking an extended leave of absence from one's job and then return, working full-time as before. This may be a viable strategy for women with a job where part-time work is very hard to get, or for whom part-time work would result in a serious set-back in career plans.

Women who exhibit early labour force withdrawal are less likely to start working full-time than women who worked up to the birth of their first child. To stop working more than three months prior to delivery was also found to influence the degree of home attachment positively, i.e. these women are more likely to remain at home for at least one year (Bernhardt, 1986). Early labour force withdrawal would thus seem to indicate a

18) Preliminary findings from an analysis of the transition from full-time to part-time work indicate a very marked increase over time in this propensity among one-child mothers. Thus return to full-time work may be transitory, i.e. of short duration.

determination to focus on home and family (the "convinced housewife" syndrome in the Urdze-Rerrich typology).

Educational level has by far the strongest impact of all the covariates included in the model. Highly educated women, i.e. women with at least four year of education after the age of 16 (and prior to first birth), are at least three times more likely to start working full-time than are women with shorter education. Differences between the educational levels below "high" are small, and were not found to be significant. Thus it can be stated that among home-attached one-child mothers the behaviour of highly educated women is distinctly different from women with shorter education.

Women who were cohabiting rather than married were also more inclined to start full-time work, which seems reasonable. The same kind of effect was found in the previously undertaken analysis of home attachment at first birth (Bernhardt 1986). We then suspected that this was more a result of a selection mechanism, where work-oriented women would be less inclined to formalize their cohabitation, since they intended to work and support themselves anyway. We would be inclined to interpret the results found here in the same way.

Some of the non-significant interactions were found to be of substantive interest and will therefore be discussed here. They all had p-values between 0.05 and 0.20.

Three of the interesting interactions involve civil status, namely the interactions between that covariate and calendar period, early labour force withdrawal and duration, respectively. The relative intensities in table 3 (panel A) indicate that the influence of civil status has decreased over time, i.e. that married and cohabiting women have become more alike in their behaviour with regard to full-time work. Choosing the category of married women who had their first child in the 1968-74 period as the base category (panel B), it appears that it is the married women who have changed their behaviour over time, and thus have tended to become more like cohabiting women in their tendency to start full-time work.

Table 3. The transition to full-time work among home-attached women. The interaction between calendar period and civil status. Relative intensities.

Civil status	Panel A			Panel B		
	-1967	1968-74	1975-80	-1967	1968-74	1975-80
Married	1.00*	1.00*	1.00*	0.84	1.00*	1.82
Cohabiting	2.75	1.98	1.22	2.32	1.98	2.22

* = base category

The interaction between civil status and duration also shows an interesting pattern (table 4). In the first quarter of the second year there is practically no difference between the behaviour of cohabiting and married women. After that, however, cohabiting women are between 2 and 3 times more inclined to start full-time work. The proportion of total exposure time in each duration interval which is due to cohabitational life is relatively unchanged (it varies between 16 and 22 percent). The curves of model intensities in figure 6 show that married women have high intensities to start with, which then decline, while cohabiting women have unchangingly high propensities to start full-time work.

Table 4. The transition to full-time work among home-attached women. The interaction between civil status and duration. Relative intensities.

Civil status	Duration intervals				
	1 q	2+3 q	4+5 q	6+7+8 q	4+5 yr
Cohabiting	0.95	2.41	2.33	2.74	2.12
Married	1.00*	1.00*	1.00*	1.00*	1.00*

* = base category

Note: 1 q = first quarter of second year after first birth.

2+3 q = second and third quarter of second year.

4+5 q = fourth quarter of second year and first quarter of third.

6+7+8 q = the remainder of the third year.

4+5 yr = fourth and fifth year after first birth.

The interaction between civil status and early labour force withdrawal was almost significant (p -value=0.044). It shows that for cohabiting women the effect of early labour force withdrawal is slight, while married women who stop working more than three months before delivery are only half as likely to start working full-time as are those women who work more or less right up to the delivery. Thus, for married women early

labour force withdrawal would seem to indicate true "family orientation", while this is not the case to the same degree for cohabiting women. We suspect that this means that among cohabiting women early labour force withdrawal is more likely to be associated with bad health and a problematic pregnancy¹⁹.

Table 5. The transition to full-time work among home-attached women. The interaction between civil status and early labour force withdrawal. Relative intensities.

Civil status	Early labour force withdrawal			
	no	yes	no	yes
	Panel A		Panel B	
Cohabiting	1.00*	0.91	1.52	1.66
Married	1.00*	0.52	1.00*	0.52

* = base category

Finally, there is an almost significant interaction between educational level and early labour force withdrawal (table 6). The effect is negative for all educational groups. Surprisingly enough, however, among women with low educational level the effect of early labour force withdrawal is relatively slight. The largest effect is found among women with a medium level of education, who are less than 23 years old at the time of first birth. If "mediumyoung" women without early labour force withdrawal are taken as the base group (panel B), it is shown that highly educated women, regardless of whether they exhibit early labour force withdrawal or not, have higher propensities to start full-time work than women in the base group. Women in all other categories have lower propensities.

19) That early labour force withdrawal partly may be explained by bad health is corroborated by the finding that home-attached women with early labour force withdrawal have lower observed occurrence/exposure rates with regard to next pregnancy. This would be contrary to expectations if the main explanation behind early labour force withdrawal was high degree of "family orientation".

Table 6. The transition to full-time work among home-attached women. The interaction between educational level and early labour force withdrawal. Relative intensities.

Educational level	Early labour force withdrawal			
	no	yes	no	yes
	Panel A		Panel B	
low	1.00*	0.88	0.59	0.52
mediumyoung	1.00*	0.26	1.00*	0.26
mediumold	1.00*	0.50	0.78	0.39
high	1.00*	0.54	2.53	1.38

* = base category

4.3 The transition to part-time work.

Part-time work has become an increasingly popular alternative for Swedish women. According to the Swedish Labour Force Survey (Statistics Sweden, 1981) the percentage of all women in the ages 16-74, who worked 20-34 hours per week²⁰, increased from 12 percent in 1970 to 24 percent in 1980, while the percentage with full-time work was practically unchanged.

Which factors influence the propensity of a home-attached one-child mother to start working part-time, prior to getting pregnant with a second child? To answer that question we again fitted hazard models, including social background, educational level, early labour force withdrawal, calendar period and civil status as explanatory factors. Only one of the pairwise interactions tested was found to be significant, namely that between calendar period and duration. The main factor of civil status was not found significant and was therefore excluded²¹. This was also the case with social background. The relative in-

20) 35 hours per week being the lower limit for full-time work.

21) Although not significant, the relative intensities show that the effect is in the expected direction: cohabiting women are 24 percent more likely to take up part-time work than are married women.

tensities of the three main factors and the one interaction included in the final model are shown in table 7.

Again we find that the highly educated women are much more inclined than women with shorter education to abandon their housewife role and start working. Compared to the "mediumyoung" women (the base group) they are three times more likely to take up part-time work in the period following their oldest child's first birth-day. There is relatively little difference between the behaviour of women with a low level of education and the "mediumyoung", and that difference is not significant. Contrary to what we found regarding the transition to full-time work, the "mediumold" women are 40 percent more inclined to start part-time work than are the "mediumyoung".

Table 7. The transition to part-time work among home-attached women. Final model. Relative intensities.

Educational level	low	0.84
	mediumyoung	1.00*
	mediumold	1.41
	high	2.97
Early labour force withdrawal	no	1.00*
	yes	0.36

Period	Duration intervals				
	1 q	2+3 q	4+5 q	6+7+8 q	4+5 yr
-1967	0.75	0.38	0.89	0.38	1.35
1968-74	1.00*	1.00*	1.00*	1.00*	1.00*
1975-80	2.72	2.25	2.20	0.72	1.03

Note: For definition of duration intervals see table 4.

The covariates are defined in section 3 above.

1 : base category

Early labour force withdrawal again has a substantial and depressing impact on the propensity to start working. In fact, it is even more negative than the corresponding effect with regard to full-time work. Our interpretation of this somewhat surprising result is that women with early labour force withdrawal are a very special group, increasingly selected for low work commitment. Women who stop working more than three months prior to delivery, probably do so either for health reasons or because they have already decided to give up employment for a substantial period of time. This may be because the work is physically or psychologically too strenuous to be combined with

child responsibilities, or because the women are bored with the work they do, or at least that the rewards it offers cannot compete with those provided by housewife/mother role.

The proportion of women exhibiting early labour force withdrawal among one-child mothers still at home one year after first birth has decreased from 40 percent in the period before 1968 (calendar year of first birth) to 15 percent in the 1975-80 period. The (non-significant) interaction between period and early labour force withdrawal (table 8) indicates that while women without early labour force withdrawal have consistently and substantially increased their propensity to start working part-time, this is not the case with women who stop working more than three months prior to first birth. Put in other words, women who manifest their "family orientation" by quitting work more than three months before delivery, have not participated to the same degree in the "explosion" of part-time work. They are determined to remain housewives. The "compromise" of part-time work combined with housework and child-rearing does not seem to offer any temptation to them. Or perhaps they are the economically fortunate who can afford the luxury of abstaining from an additional income?

Table 8. The transition to part-time work among home-attached women. The interaction between calendar period and early labour force withdrawal. Relative intensities.

Period	Early labour force withdrawal			
	no	yes	no	yes
	Panel A		Panel B	
-1967	0.65	0.29	1.00*	1.00*
1968-74	1.00*	0.36	1.54	1.26
1975-80	1.62	0.39	2.49	1.34

*) base category

The "explosion" of part-time work among Swedish one-child mothers is vividly illustrated by the relative coefficients in the lower panel of table 8. The middle period (1968-74) is used as the base group. In the first quarter of the second year, i.e. immediately after their child's first birth-day, the propensity of home-attached women to start part-time work has almost tripled, comparing women who gave birth to their first child in the 1975-80 period to those who became mothers in 1968-74. In

the following two duration intervals (covering the period up through the beginning of the child's third year of life) the propensities have more than doubled. These changes are noteworthy, especially over such a relatively short period of time²². Compared to the period before 1968, the transitional intensities in the 1968-74 period are higher in all intervals except in the last (year 4 and 5).

The model intensities, calculated on the basis of the final model in table 7, taking the "mediumyoung" and those without early labour force withdrawal as the base groups for the other two covariates, are shown in figure 7. There are clearly dramatic changes over time, especially in the beginning of the observation period (second year after first birth). These changes were evident also in figures 3, 4 and 5 (with the observed occurrence/exposure rates). It is remarkable, however, that even taking account of the important structural changes that have occurred over this time period with regard to education and the tendency to withdraw from the labour market prior to first birth, this strong period effect has not diminished, it may even have strengthened. Clearly, an "adaptive family strategy" consisting of an extended work interruption in connection with first birth, combined with a "de-escalation" of work hours, is an increasingly attractive alternative for Swedish one-child mothers.

The interaction between educational level and duration since first birth was almost significant (table 9). It shows that for the first two duration intervals (through most of the second year), the propensity to transfer from home attachment to part-time work increases strongly with the length of education²³. The highly educated are between 4 and 6 times more likely to start part-time work as are women with a low level of education.

22) It may be compared to the 50 percent increase from the 1968-74 to the 1975-80 period with regard to the transition to full-time work among home-attached women.

23) The "mediumold" women can be assumed to have on the average somewhat more education than the "mediumyoung".

Table 9. The transition to part-time work among home-attached women. The interaction between educational level and duration. Relative intensities.

Education	Duration intervals				
	1 q	2+3 q	4+5 q	6+7+8 q	4+5 yr
low	1.00*	1.00*	1.00*	1.00*	1.00*
mediumyoung	1.80	1.47	0.20	0.85	1.34
mediumold	2.36	2.28	0.81	1.71	1.21
high	6.12	4.34	0.97		

The main factor of civil status was not significant in the analysis of the transition to part-time work, neither were any of the interactions involving civil status. This is in itself a very interesting finding. One possible interpretation of this is that part-time work is such an attractive alternative to mothers with small children that it applies regardless of civil status. One may ask, however, whether there have been any changes over time in the relative importance of marriage and cohabitation, such as were found with regard to the transition to full-time work.

The relative intensities shown in table 10 reveal that in the period before 1968 part-time work was less popular among cohabiting than among married women. Both married and cohabiting women exhibit an increasing propensity over time to start part-time work, but this increase has been larger for cohabiting women. Thus the overall effect, not taking account of the changes that have occurred over time, is that cohabiting women are slightly more inclined to start part-time work than are married women. It is noteworthy that in the period where cohabitation was relatively uncommon among the women analysed here²⁴, part-time work was a relatively uninteresting alternative, while the transition to full-time work was more than three times more common among cohabiting than among married women (table 3). The relative difference between cohabiting and married women with regard to part-time work decreases, however, in the 1975-80 period, which gives additional support to the proposition that towards the end of the 1970's civil status has

24) Among non-pregnant still home-attached one-child mothers, cohabitational life accounted for only 8 percent of total exposure time in the period before 1968, compared to 26 percent in the 1968-74 period and 33 percent in the 1975-80 period.

retained very little relevance for the work behaviour of one-child mothers (at least for those who stay at home for at least one year after first birth).

Table 10. The transition to part-time work among home-attached women. The interaction between calendar period and civil status. Relative intensities.

Civil status	Panel A			Panel B		
	-1967	1968-74	1975-80	-1967	1968-74	1975-80
Cohabiting	0.60	1.40	1.22	0.45	1.40	1.97
Married	1.00*	1.00*	1.00*	0.74	1.00*	1.61

Social background was not found to be significant for the transition to part-time work. It may be worth noting, however, that although the interaction was not significant, among women with a low level of education daughters of middle and high level employees were found to have a 80 percent higher inclination to start part-time work than daughters of skilled workers or lower level employees. Thus, in this case social background seems to some extent to counteract the depressing effect of a low level of education.

4.4 Continued home attachment versus transition to employment.

Home-attached one-child mothers who are considering to take up employment, may choose between part-time and full-time work²⁵. As we have seen, there are great similarities with regard to the relative influence of various background factors on these two transitions respectively. The exceptions are that civil

25) We don't mean to imply that women may choose freely between these two alternatives. Besides there is certainly a great deal of variation in the part-time group, which consists of working hours between 16 and 34 per week. It would no doubt have been desirable to distinguish at least between short and long part-time, in order to get a better picture of the degree of "escalation" or "de-escalation" that takes place. However, the number of observations in each category would then be too small.

status does not matter for the transition to part-time work and that there is an interaction between period and duration in the final model for this transition.

Another kind of "choice" that the women face is that between employment and continued home attachment. Given that they have not become pregnant with their second child, what factors influence the transition to employment among home-attached women?

Fitting hazard models to the transition to employment we find, as expected, that social background has no influence (apart from that which is captured by educational level). The effect of education is, on the other hand, again the most important of the covariates considered here. The differences between the educational groups below "high" are small but significant, indicating that length of education is directly related to the propensity to abandon the exclusive housewife role and start working outside the home²⁶. Again, having an education of four years or more at first birth, increases the work propensity about three times compared to women in the "mediumyoung" category. Clearly, the highly educated women are in a category by themselves.

The civil status covariate is significant, indicating that cohabiting women are 40 percent more inclined to start working before next pregnancy than are married women. Early labour force withdrawal has a depressing effect on the transition to employment: women who have seemingly manifested their "family orientation" by quitting work prior to first birth, are only half as prone to take up employment before having their next child.

The interaction between calendar period and duration is again strongly significant. The part-time "explosion" toward the end of the 1970's is reflected in the transitional intensities with

26) An increasingly important form of employment among Swedish women is that of being a "day care mother". This is a form of paid work which can be carried out in the home and therefore is easily combined with having children of one's own. This particular form of employment has not been distinguished here, but may well be one of the factors behind the dramatic increase in employment among home-attached women in the late 1970's.

Table 11. The transition to employment among home-attached women. Final model. Relative intensities.

Educational level	low	0.78
	mediumyoung	1.00*
	mediumold	1.20
	high	3.02
Early labour force withdrawal	no	1.00*
	yes	0.48
Civil status	cohabiting	1.42
	married	1.00*

Period	Duration intervals				
	1 q	2+3 q	4+5 q	6+7+8 q	4+5 yr
-1967	0.94	0.47	1.19	0.53	1.10
1968-74	1.00*	1.00*	1.00*	1.00*	1.00*
1975-80	2.33	1.79	2.41	0.76	1.06

regard to employment as such. The model intensities for married, mediumyoung women without early labour force withdrawal are shown in figure 8. Clearly, it is during the second year after first birth that the spectacular changes have occurred in the late 1970's. Calculating the life table "survivors" for this category of women, gives the "synthetic" result that three years after first birth the proportion still at home has decreased from 70 percent in the period before 1968, to 59 percent in the 1968-74 period to 44 percent in the 1975-80. These calculations ignore the fact that many women have by then become pregnant with their second child; it measures the "partial" effect of the transition to employment among one-child mothers still at home one year after first birth.

No other interactions were significant. It may be of some interest, however, to look at some of the interactions which were previously found to provide some intriguing information on developments. For example, the relative coefficients of the interaction between calendar period and early labour force withdrawal (table 12, panel A) indicate there has been relatively little development over time. Women with early labour force withdrawal have about half the propensity to start working regardless of calendar period, compared to women who work up to the arrival of the first child. Looking at the time trend of the two groups separately (panel B), it appears that there is a

tendency of closing the gap in the late 1970's, because the propensity of women with prior labour force withdrawal to start working has increased somewhat more than that for women who work more or less up to the birth of their first child.

Table 12. The transition to employment among home-attached women. The interaction between calendar period and early labour force withdrawal. Relative intensities.

Period	Early labour force withdrawal			
	no	yes	no	yes
	Panel A		Panel B	
-1967	1.00*	0.52	1.00*	1.00*
1968-74	1.00*	0.50	1.30	1.24
1975-80	1.00*	0.58	1.37	1.53

The relative intensities of the (non-significant) interaction between calendar period and educational level give an interesting picture (table 13). Taking the period before 1968 as the base category, all educational groups have increased their work propensities over time. The most dramatic increase occurs, however, for the highly educated women at the end of the 1970's. Their work propensity in that period is ten times (!) higher than in the period before 1968. The "mediumyoung" women, on the other hand, exhibit a slight decrease in the 1975-80 period compared to 1968-74. It may be noted that women with a medium level of education also became somewhat more prone to remain at home one year after first birth, if they had their first birth in the 1975-80 period (Bernhardt, 1986).

The sharply widening difference between the high/not high categories in the 1975-80 period would seem to indicate that the previously hypothesized new "adaptive family strategy" where women combine an extended work interruption with a subsequent return to the labour market, when the child is a little over one year old (but prior to next pregnancy), is particularly common among highly educated women (and in the 1975-80 period). They have in fact increased their share of the home-attached one year after first birth, not because they have become more prone to remain at home for at least one year, but because the less educated women have markedly decreased their home attachment. Among the home-attached women, the highly educated dis-

tinguish themselves by being considerably more prone to start working again immediately after their child's first birth-day.

Table 13. The transition to employment among home-attached women. The interaction between calendar period and educational level. Relative intensities.

Period	Educational level			
	low	mediumyoung	mediumold	high
-1967	1.00*	1.00*	1.00*	1.00*
1968-74	1.18	1.79	1.50	1.27
1975-80	2.06	1.40	2.38	10.2

* = base category

We noted in section 4.1 that over time there has been a decrease in the propensity among home-attached women to get pregnant with their second child. One may ask then what has been the combined effect of the transition to employment and the transition to next pregnancy among home-attached women, or, put in other words, what factors influence the propensity of a home-attached one-child mother to remain at home with her first child without getting pregnant again?

We fitted hazard models to the combined propensity ($h_1 + h_2$ in figure 1) and the final model which resulted from these exercises²⁷ is found in table 14. The educational levels below "high" were combined, as there were no significant differences between them. This underlines the previous result that the behaviour of highly educated women is quite different from that of women with shorter education. Their "overrisk" is now slightly smaller, however, only twice that of less educated women, compared to three times when analyzing only the transition to employment. Early labour force withdrawal again has a depressing effect, which may seem surprising. However, as was noted in section 4.1, early labour force withdrawal seems to some extent to be associated with health problems, possible leading to lower fecundity. The observed occurrence/exposure rates for second pregnancy among women exhibiting early labour

27) We did not try to include any other interaction terms than that which was found significant in the previous analysis, i.e. that between calendar period and duration.

force withdrawal were found to be slightly lower than among women who worked up to the arrival of their first child.

Neither social background nor civil status were found to influence behaviour to any significant degree. Observed occurrence/exposure rates for second pregnancy among home-attached women showed that for the first three quarters of the second year there was practically no difference between cohabiting and married women. After that, however, cohabiting women are less prone to have a second child than are married women²⁸. This obviously counteracts their higher tendency to take up employment, so that the overall effect is non-significant.

Table 14. The transition to employment or next pregnancy among home-attached women. Final model. Relative intensities.

Educational level	not high	1.00*			
	high	2.22			
Early labour force withdrawal	no	1.00*			
	yes	0.68			
Duration intervals					
Period	1 q	2+3 q	4+5 q	6+7+8 q	4+5 yr
-1974	1.00*	1.00*	1.00*	1.00*	1.00*
1975-80	1.81	1.63	1.22	0.82	0.60

* = base category

Women with low or medium level of education, who stop working more than three months before delivery, have a three times higher propensity to remain at home with their first child without getting pregnant with the second, than have highly educated women who work right up to the arrival of their first child. There has also been a dramatic change in the time pattern, speeding up the process by which women leave the status of home-attached one-child mothers.

The model intensities for these two extreme groups of women in the period before 1975 and 1975-80 respectively are graphed in figure 9. Using these model intensities to calculate the life table survivors in each category three years after first birth

28) This is in correspondence with the findings of B. Hoem (1985).

(table 15), we find that among the highly educated without early labour force withdrawal practically all have either started working or got pregnant with their second child, while among women with low or medium level of education, who stop working well before first birth, some 30-40 percent are continuous housewives and not yet pregnant with their second child²⁹.

Table 15. Proportion still at home with the first child and not yet pregnant with the second, 3 years after first birth. Percent.

Education level and early labour force withdrawal		
Period	high/no	not high/yes
-1974	6.6	43.6
1975-80	2.5	32.3

5. Summary and conclusions

This paper analyzes the simultaneous influence of background factors such as educational level and civil status on the subsequent work life transitions among women who remained at home one year after first birth. The analysis is limited to non-pregnant one-child mothers, whose child is less than 5 years old.

29) According to B. Hoem (1985), median duration at second birth, i.e the number of months after first birth when half of the one-child mothers have given birth to a second child, has remained rather stable at 40 months over the cohorts studied (women born 1936-60).

Observed occurrence/exposure rates for the transitions to full-time or part-time work and the transition to next pregnancy among women still at home with their first child, reveal that getting pregnant again used to be the most likely event among this category of women. After 1975, there is, however, a major break with previous trends. In the beginning of the second year after first birth, these women were more inclined to start working than to get pregnant. Part-time work has by then become much more popular than return to full-time work.

Fitting hazard models separately to the transitions to full-time and part-time work respectively, results in fairly similar final models for the two transitions. Social background has no significant impact on the propensity of one-child mothers to stop being full-time housewives and return to the labour market, except via the intervening educational variable. Length of education at first birth is, however, a strongly influential factor, with highly educated women (four years or more after the age of 16) about three times as likely to start working, either part-time or full-time, than women with shorter education.

Civil status has no significant impact on the transition to part-time work, but cohabiting women are more inclined to start full-time work than are married women. There are indications of a narrowing of the gap between married and cohabiting women. Thus it would seem that towards the end of the 1970's civil status has retained very little relevance for the work behaviour of home-attached one-child mothers.

Early labour force withdrawal has a depressing effect on the propensity to start working again among home-attached one-child mothers. This effect is stronger with regard to part-time work, indicating that women who stop working more than three months prior to first birth are not interested in the "compromise" of part-time work combined with housework and childrearing. They intend to stay at home for an extended period of time and not work in the interval between births.

Taken together with the results of an earlier study of home attachment at first birth (Bernhardt, 1986), the findings pre-

sented here give a picture of a very rapid and radical transformation of the work behaviour of Swedish one-child mothers, where the highly educated women have led the way. Already in the mid-50's highly educated women had established a pattern of low home attachment, i.e. a high propensity to start working again already prior to their child's first birth-day. Women with a medium or low level of education have tended to "catch up" over time. Thus being at home one year after first birth has become increasingly uncommon. At the same time it appears that with changes in maternity leave rules the "meaning" of being at home one year after first birth has changed. While previously it indicated an intention of remaining at home for quite a while, more and more of these home-attached women regard their home attachment as transitory: they have in reality not left the labour market.

Using the terminology of Oppenheimer (1982), Swedish women (couples) have increasingly adopted an "adaptive family strategy" of returning to the labour market in the interval between first and second birth. With improvements in maternity benefits and greater availability of public day care, an extended work interruption in connection with first birth, combined with a "de-escalation" of working hours, has become an increasingly attractive alternative for Swedish one-child mothers. As we only observe actual behaviour, we are unable to determine the relative importance of "choice" or "necessity". We would, however, hypothesize a substantial element of "choice" rather than "necessity", since length of education has such a strong positive influence on the transition to employment among home-attached one-child mothers.

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References

- Adams, C.T. and K.T. Winston, 1980. Mothers at work: Public Policies in the United States, Sweden and China. New York and London: Longman.
- Allison, P. 1984. Event History Analysis: Regression for Longitudinal Event Data. Sage University Paper No. 46.
- Bernhardt, E. 1984. Arbete och barn: kvinnors sysselsättning i de barnafödande åldrarna (Work and children: Employment patterns among women in the childbearing ages). Statistiska centralbyrån, Stockholm.
- Bernhardt, E. 1986. Women's home attachment at first birth: The case of Sweden. European Journal of Population, Vol. 2, No. 1.
- Bowan, W. C. and T.A. Finegan, 1969. The Economics of Labor Force Participation. Princeton: Princeton University Press.
- Cramer, J. 1980. Fertility and female employment: Problems of causal direction. American Sociological Review, Vol. 45, pp. 167-190.
- Etzler, C. 1986. Första barnets födelse bland samboende och gifta kvinnor: en studie av svenska kvinnor födda 1936-60. Paper presented at the 8th Scandinavian Demographic Symposium, Gilleleje, Denmark, June 1986.
- Hoem, B. 1985. Ett barn är inte nog. Vad har hänt med svenska ettbarnskvinnor födda 1936-60? Stockholm Research Reports in Demography, No. 25.
- Hoem, B. 1986. Tredjebarnsfödslar bland svenska kvinnor födda 1936-50. Stockholm Research Reports in Demography, No 30..
- Hoem, J. 1985. The impact of education on modern union initiation. Stockholm Research Reports in Demography, No. 27.
- Jensen, An-Magritt 1983. Når mødrer jobber - om nødvendighet og valg. In Kvinner i arbeid, K. Titlestad and T. Rødsleth (ed), Oslo: Universitetsforlaget.
- Jones, E.F. 1982. Ways in which childbearing affects women's employment. Population Studies, Vol. 36, No. 1, pp. 5-14.
- Lyberg, I. 1984. Att fråga om barn: teknisk beskrivning av undersökningen "Kvinnor och barn". Statistics Sweden, Bakgrundsmaterial från prognosinstitutet, Stockholm, 1984:4.
- Nordenstam, U. 1984. Ha barn - men hur många? (Children - but how many?). Information i prognosfrågor 1984:4, Statistiska centralbyrån, Stockholm.
- Oakley, A. 1974. Housewife. London: Allen Lane Penguin Books.

- Oppenheimer, V.C. 1982. Work and the Family: A Study in Social Demography. New York: Academic Press.
- Rodriguez, G. 1984. The analysis of birth intervals using proportional hazard models. Technical Report, Departamento de Estadística, Universidad Católica de Chile, Santiago.
- Statistics Sweden 1981. Arbetskraftsundersökningarna 1970-1980 (The Labour Force Surveys 1970-1980). Statistiska meddelanden, Am 1981:33.
- Skrede, K. and A. Sörensen, 1982. På spor av en ny kvinnorolle. In Studier av kvinners livslöp, Skrede, K. and K. Tornes (ed). Oslo: Universitetsforlaget.
- Sweet, J. 1981. Work and fertility. In Greer Litton Fox (ed) Decision-making, Family Planning and Childbearing. New York: Sage Publications.
- Tuma, N.B. and M. Hannan 1984. Social Dynamics: Models and Methods. Academic Press.
- Trussell, J. and C. Hammerslough 1983. A hazards-model analysis of the covariates of infant and child mortality in Sri Lanka. Demography, Vol. 20, No. 1, pp.1-26.
- Urdze, A. and M.S. Rerrich, 1981. Frauenalltag und Kinderwunsch. Frankfurt/New York: Campus Verlag

APPENDIX

Table A. One-child mothers still at home one year after delivery.
 Number of observations in different categories

social back- ground	period	ELFW	Level of education			
			low	mediumyoung	mediumold	high
uw	-1967	no	85	11	9	0
		yes	76	4	3	0
	1968-74	no	77	17	12	6
		yes	35	6	5	0
	1974-80	no	20	14	16	6
		yes	4	1	1	2
sw+le	-1967	no	73	11	6	3
		yes	39	8	3	1
	1968-74	no	52	17	18	10
		yes	27	2	2	1
	1975-80	no	27	16	15	11
		yes	9	2	5	0
mhe	-1967	no	21	8	7	12
		yes	4	8	4	2
	1968-74	no	11	6	11	8
		yes	4	2	6	3
	1975-80	no	5	5	5	10
		yes	1	2	2	1
f+e	-1967	no	74	13	16	4
		yes	52	15	7	4
	1968-74	no	44	12	25	10
		yes	17	4	6	3
	1975-80	no	19	6	19	15
		yes	3	0	2	1

Table B. Married or cohabiting one-child mothers by activity status and pregnancy status one year after first birth.

<u>Activity status</u>	<u>Number of mothers</u>	<u>Already pregnant</u>	<u>%</u>	<u>Women included</u>
At home	1 402	115	8.2	1 287
Working part-time	513	20	3.8	513
Working full-time	518	28	5.4	490
All statuses	2 453	163	6.6	2 290

FIGURE 1. Statuses and transitions in the analysis.

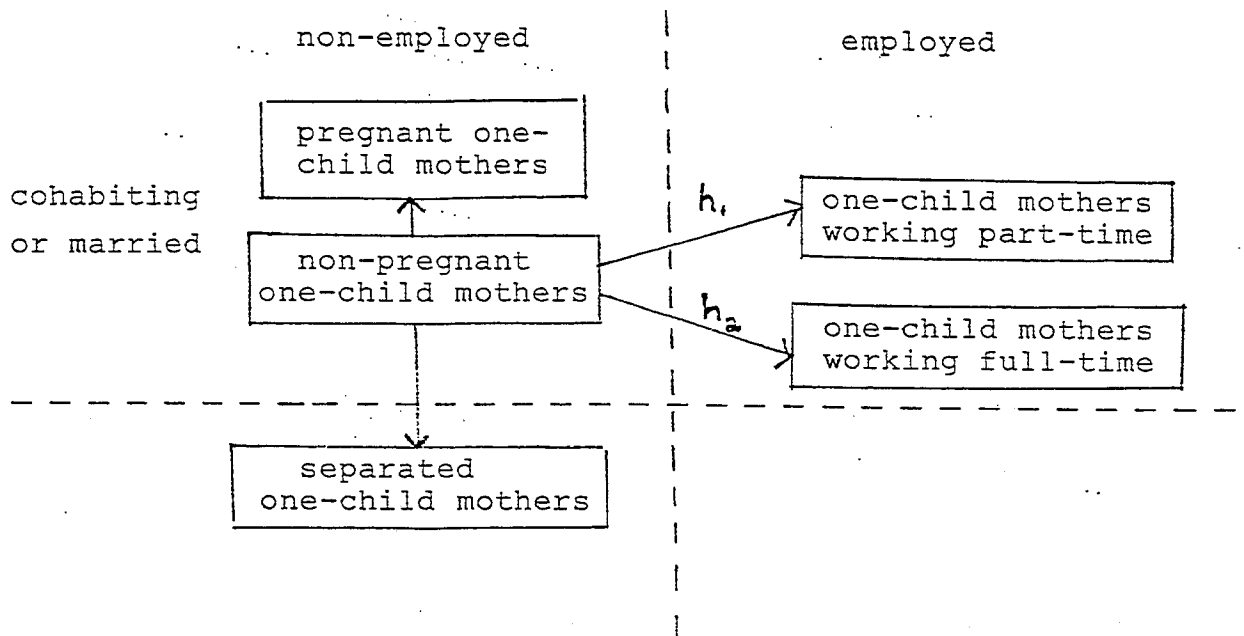


FIGURE 2. Occurrence/exposure rates (observed) among home-attached one-child mothers.

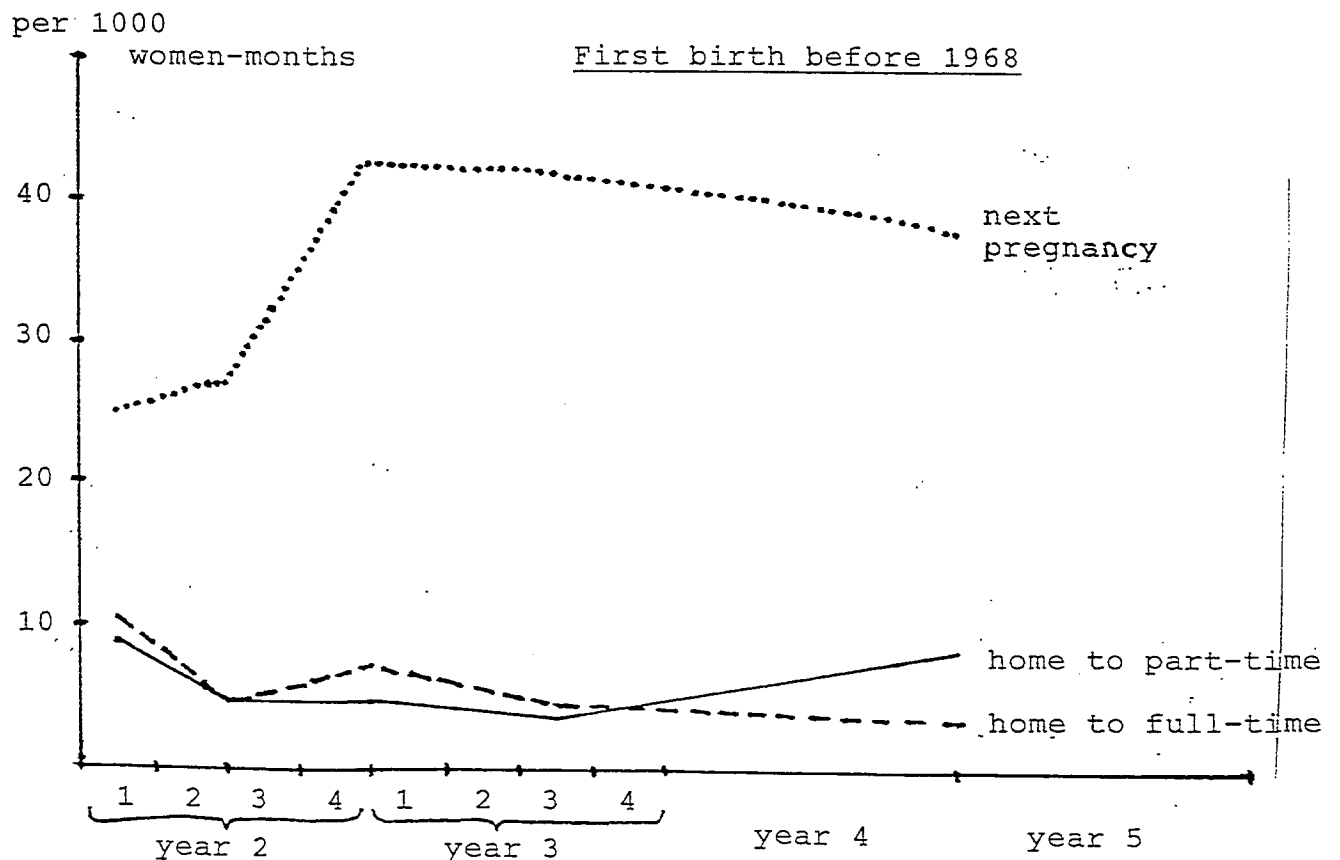


FIGURE 3. Occurrence/exposure rates (observed) among home-attached one-child mothers.

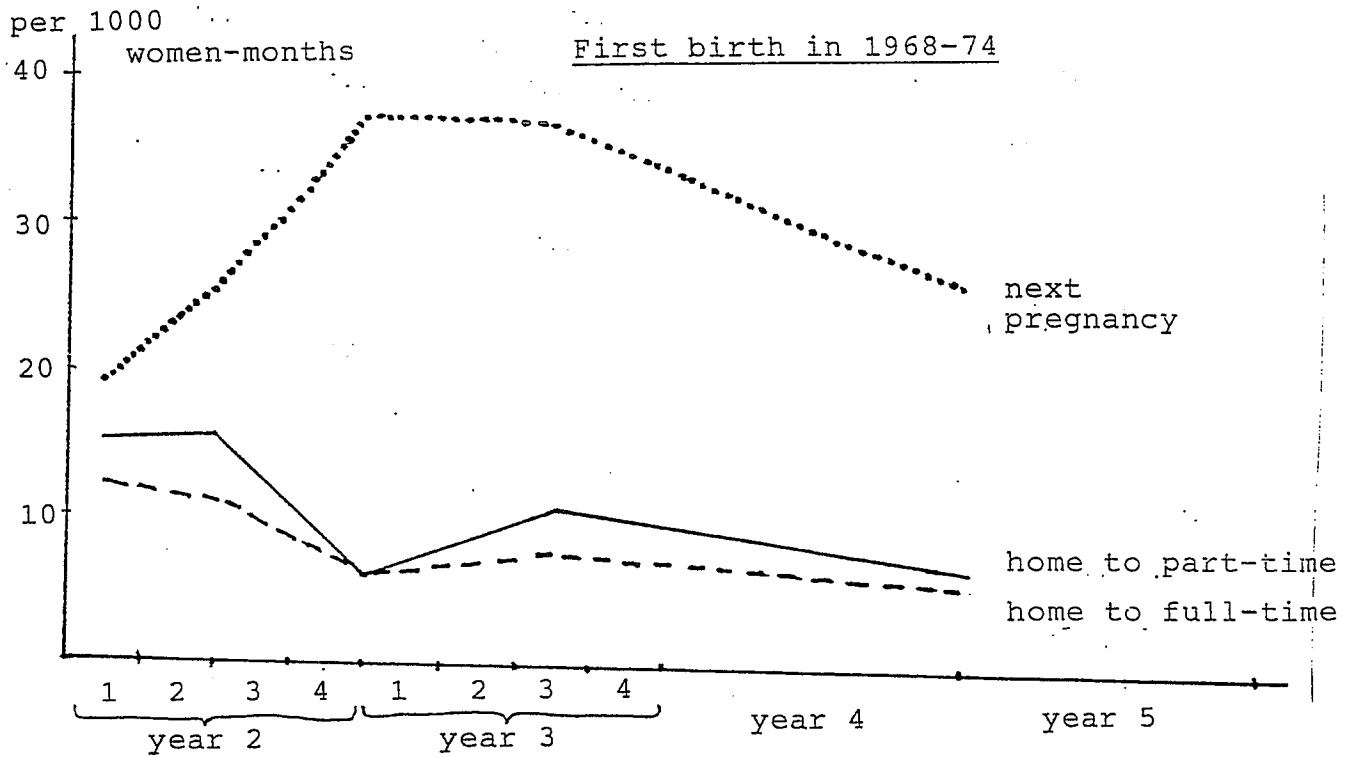


FIGURE 4. Occurrence/exposure rates (observed) among home-attached one-child mothers.

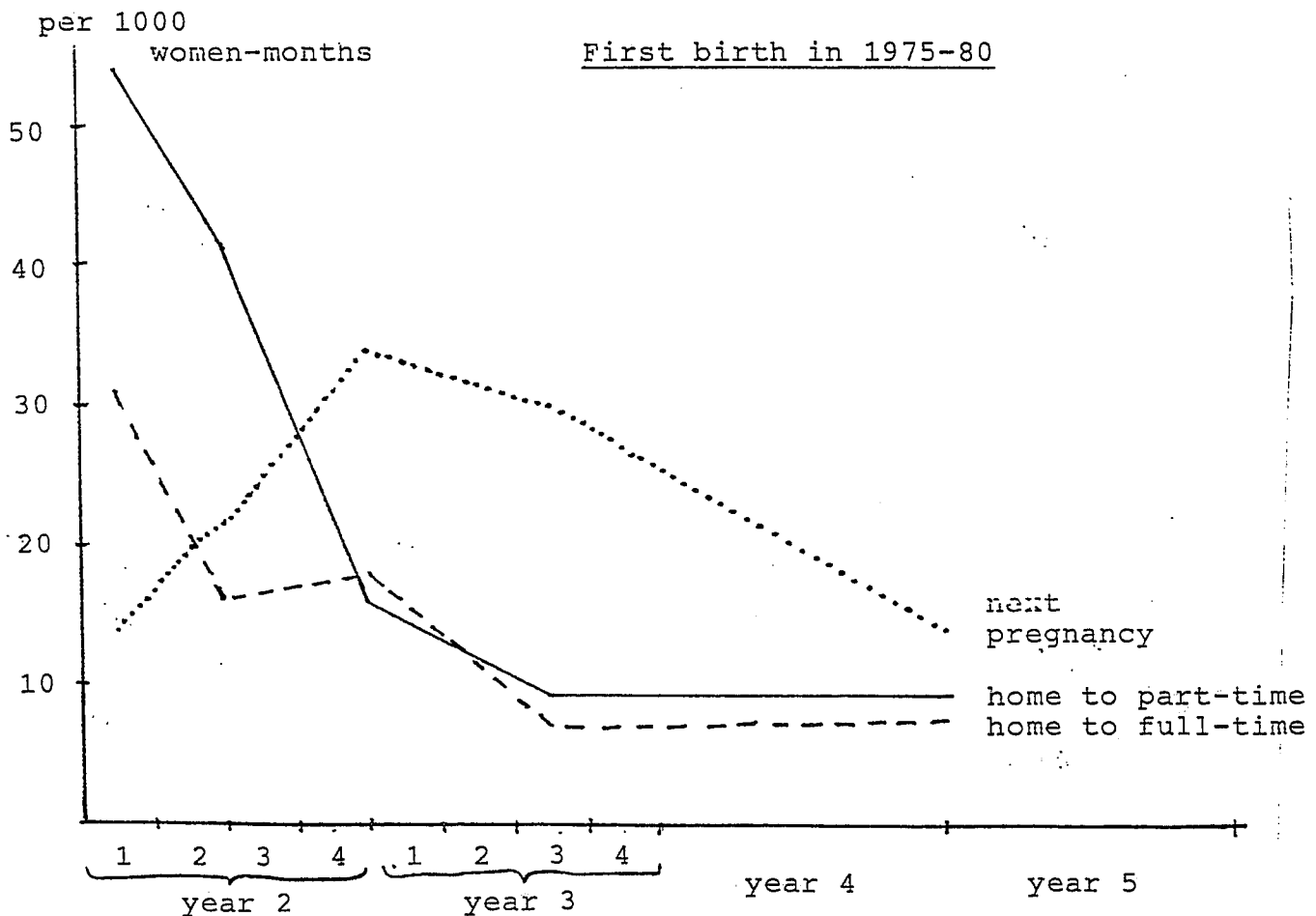


Figure 5

Proportion life table "survivors" among
home-attached one-child mothers.

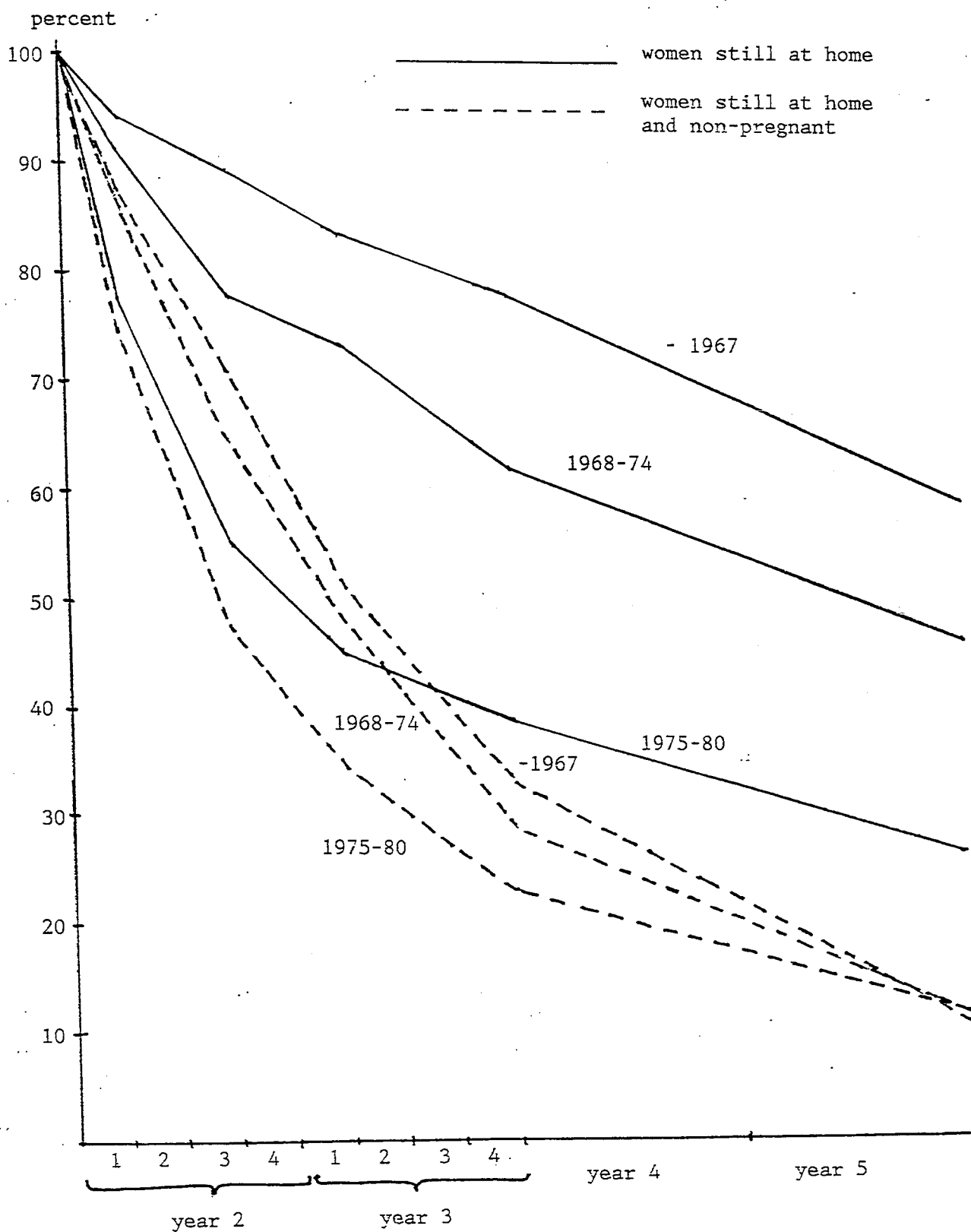


Figure 6.

Model intensities for the transition from home to full-time work, including the interaction between civil status and duration. Medium young women, no ELFW, who gave birth in 1968-74, daughters to skilled workers or low level employees.

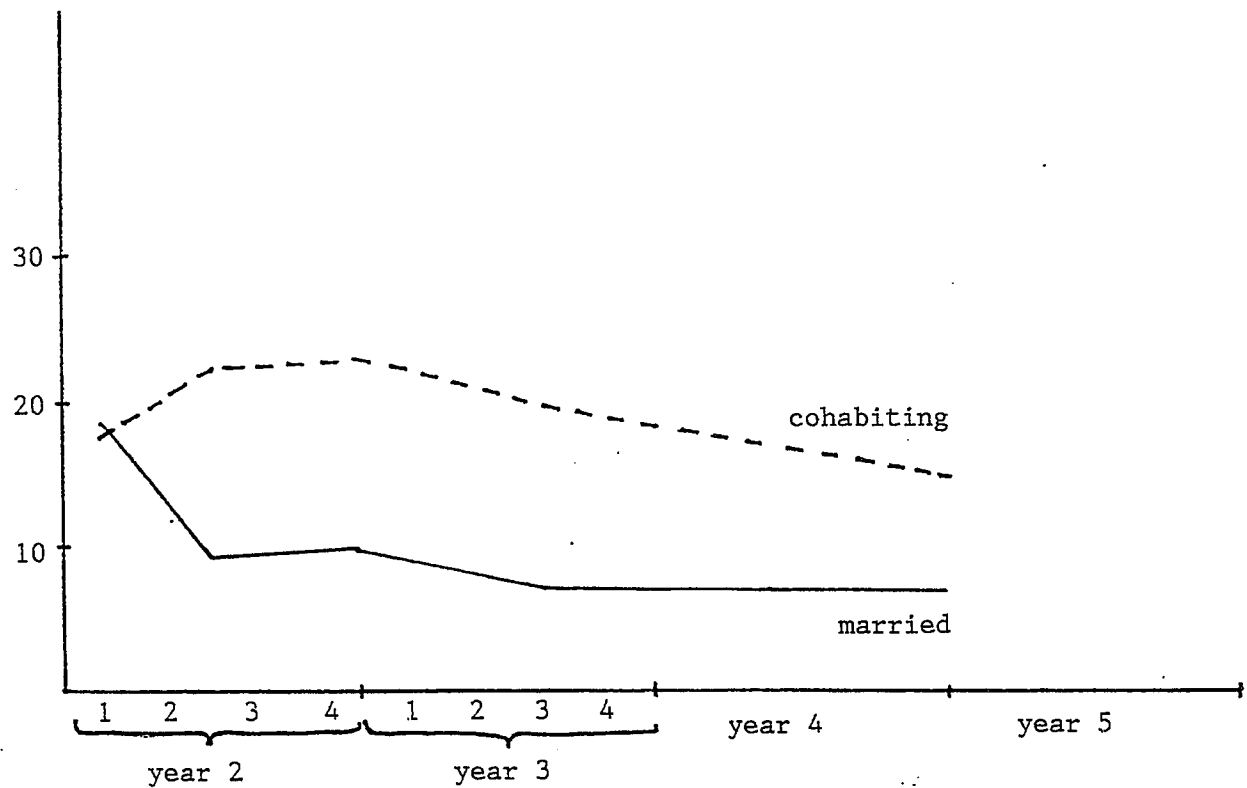
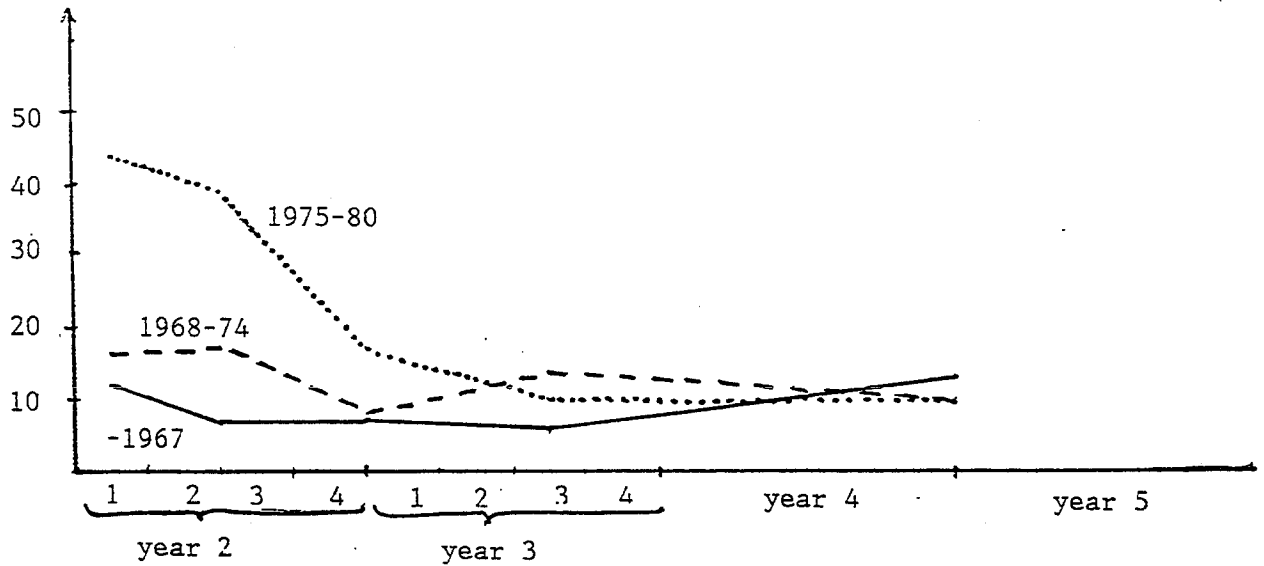


Figure 7

Model intensities for the transition from home to part-time work, including interaction between calendar year and duration. Medium young women without ELFW.

per 1000
womenmonths

Figure 8

Model intensities for the transition from home to employment, including interaction between calendar year and duration. Married, medium young women without ELFW.

per 1000
womenmonths

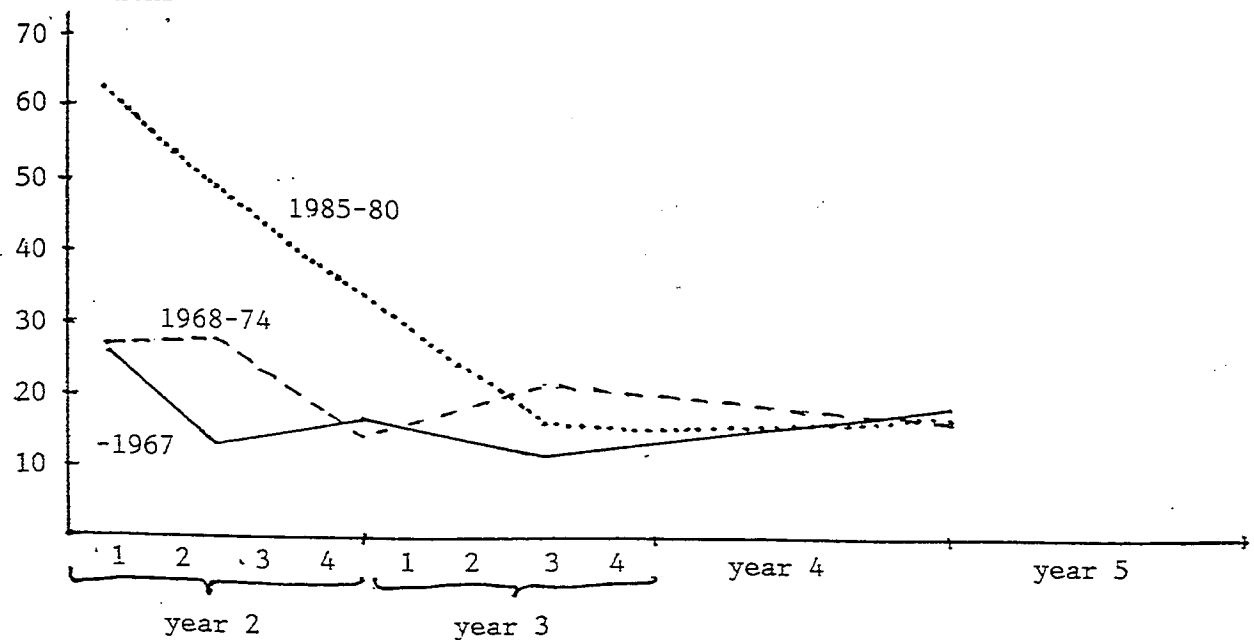


Figure 9

Model intensities for the transition to employment
or next pregnancy among home-attached one-child mothers.

per 1000
womenmonths

