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## PATTERNS OF DEFERMENT <br> OF FIRST BIRTHS IN MODERN SWEDEN

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## Abstract

Young Swedes have postponed first births just as young people have done in other countries. This paper argues that this develorment has its background in the attitudinal changes that were precipitated by the re-cently-won indivichal efficient control over childoearing. Some of these changes are consequences of deliberate fublic policies, others have emerged through sliding norms, usually in concert with but sometimes well ahead of similar developments in other countries. The changes have worked in two important ways. First, the expectation of permanent labor force participation and the connection of maternity rights with job-holding encourages women to work towards a firm foothold in the labor market before entry into motheriood. Secondly, the lower normal commitment level of the new kind of early nonmarital union has led to an instability of partnerships that mast in itself have contributed to the deferment of childoearing until the curability of the union has been established. The expansion in female ecucation may have played a smaller role in this picture.
Contents
page

1. Introduction ..... 2
2. Data and methods ..... 3
3. Changes in conjugal unions ..... 3
4. General trends in first births ..... 5
5. The influence of education and employment ..... 6
6 Civil status and first births ..... 9
6. Concluding remarks ..... 10
Acknowledgements ..... 12
References ..... 12
Tables ..... 14
Diagrams ..... 1.8

## 1. Introduction

The number of swedish women who say they want to be a parent has not decreased in later years (Nordenstam, 1984), but young women are in no hurry to start childbearing these days. Sweden has been among the many countries to experience a substantial deferment of first births since the late 1960s. At the same time, we have had a sharp drop in the age at which young men and women form their first conjugal unions. With previous patterns, this fall in the age at mion formation would have led to an increase in births at young ages, but we have seen the opposite. A general explanation may go as follows.

Improved sex education, the new contraceptives, and the universal availability of abortion on demand has led to a better control of childbearing. This has been the technical basis for a progressive change in attitudes that has gone hand-in-hand with a strong expansion in female market work as well as with a complete re-adjustment of the structure of conjugal union formation. Both have induced and have been fuelled by political and labor market reform.

It has become natural for young swedish women to establish themselves in the labor market before entry into motherinood, with a view to securing job-related matermity rights and permanent labor force attachment. 1

[^0]During the prolonged period from the advent of aculthood until the time is felt right for chilcbearing, nonmarital cohabitation has appeared as a convenient way of living together with a man while escaping many of the commitments of formal marriage. In many ways, conabitation has replaced the previous practice of going steady rather than the early phases of marriage. Consequently, a consensual union dissolves more easily than a marriase and is apt to be regarded as a less suitable framework for childbearing before the permanency of the union has been established. It is the purpose of this paper to argue that a combination of a woman's early labor force investment and her insecurity about the durability of an early consensual union have been important elements behind the strong recent postponement of first births in Sweden. Another explanation commonly given is the improvement in education among swedish women, but its importance as a direct determinant of the changes observed in the age at entry into motherhood may have to be de-emphasized.

## 2. Data and methods

Our data were collected by Statistics Sweden in their 1981 fertility survey (Arvidsson et al., 1982; Lyberg, 1984; WFS, 1984), There were 4223 usable records from respondents of all marital statuses, distributed with 490, 990 , 1014, 1030, and 699 respondents from the quinquemial conorts born in 1936-40, ..., 1956-60. This is 85 per cent of the target sample, which was selected by stratified random sampling with the five conorts serving as strata. The respondents were asked for a wealth of information, including a complete childbearing, cohabitational and marital fistory as well as a month-by-month employment history beginming at age 16. We report the outcome of analyses based on transition counts and hazard (or intensity ${ }^{2}$ ) regressions of events occurning to adolescents and young adults. For some relevant descriptions of this well known methodology, see Thussell and Hammerslough (1983), Tuma and Haman (1984), or J. Hoem (1986).

## 3. Ganges in conjugal unions

In Sweden, it has long been comon to start a first union without marrying. Even in our oldest cohort (bom in 1936-40), every third woman

[^1]did so (Hoem and Rennermalm, 1985). Many of them married rather quickly afterwards, however, and durable consensual unions were relatively rare. Nonmarital cohabitation received no public attention, and no account was taken of it in family law or in official statistics. From the later part of the 1960s, it became progressively more common for men and women to start living together for quite a long time without marrying, Merriage rates fell and illegitimate births increased sufficiently dramatically to attract attention. Nowadays, almost no swede marries without living together with the partner firgt ${ }^{3}$ and almost half of all births are 1llegitimate. Since 1975, nonmarital cohabitation has been registered in the censuses, and family law will shortly be reformed to improve the rights of each cohabitant when a union is dissolved (whether by separation or by the death of the partner). Previous legislation has mostly been concemed with the rights of any remaining children.

The increase in cohabitation went hand-in-hand with great changes in family building patterns. New groups picked up the practice of early and nonmarital union formation. This behavior spread to students, who seem to suddenly have found a type of union which suited them. Rates of consensual union formation among female students more than doubled between the cohorts of 1936-40 and 1946-50, and they have mostly contimued to increase in younger cohort $s^{4}$. Nonmarital unions increased quickiy among nonstudents as well. The increase was most notable among teenagers.
In our oldest cohort (borm in 1936-40) somewhat less than 20 per cent had entered a conjugal union before age 20, and half of them were pregnant on entry. Many of the pregnancies were not plamed. A whole two thinds of those who got pregnant before first union formation reported that their pregnancy came too early or was not wanted. ${ }^{5}$ In our youngest cohort (form

3 Almost 500 of our ca. 700 respondents form in 1956-60 had started a consensual union before they were interviewed in 1981, and little more than a dozen had married without reporting any previous nonmarital union.

4 In the cohort from 1956-60, consensual union formation rates for female students actually fell somewhat at ages above 21 ( $J$. Hoem 1986), probably in response to a deteriorating economic situation for such groups in the late 1970s and through 1980. These young women will have found living arrangements that were less expensive for them, like continuing to live with their parents longer than in previous cohorts.

5 No doubt this is a minimum figure, Remember that the reports were about fregnancies started some twenty years before the interview. Presumably, any misreporting would tend to be in the direction of underreporting undesirable circumstances.
in 1956-60), almost half the respondents started a union as teenagers. Less than five per cent of these early starters were pregnant. Swedish women have been better and better able to avoid unplamed childoearing. At the same time, the initially low level of childoearing outside of a conjugal union has dwindled to almost nothing. 5

Successively, the implications of living together with a man have changed since the mid-1960s. Judging from the behavior of our older cohorts, most women must have entered a union with the intention of quickiy starting a family and having children. Today, young women seem to have quite different plans for their immediate future when they start living together with a man. The strong increase in teenage union formation must mean that many young men and women do not know each other well and have not taken much time to explore the "partner market" before they begin conabitation. In response, dissolution rates have increased dramatically, particularly at short union curations (Figure i). In fact, such trencs actually appear in all age groups, not only among the very young.

Against this background, it is natural that many couples postpone childbearing until they perceive their union as firmly established and durable.

## 4, General trends in first births

There has been a striking decrease over our conorts in age-specific first birth rates (Figure 2). Note in particular that the decrease is not confined to young ages. Among women born in the 1940s, about forty per cent had not had a child by the end of their 25 th calendar year. The corresponding per cent was sixty for women born in the late 1950s. The other side of the coin is a strong increase in the age at first birth. Between the conort borm in 1944 and that bom only 14 years later (1958), the median age at first birth increased by all of 2.8 years, from 24.1 to 26.9.7 This is as far as sufficiently complete cohort data go, but the postponement has contimed for women borm in the early 1960 s .

[^2]
## 5. The influence of education and exployment

The time spent taking education is an important determinant of the age at which a woman starts family building. Both age at first union formation and age at entry into motherhood increase with time spent in school. Also, at the normal ages of childbearing, first-birth intensities decline as a woman's educational level improves ${ }^{8}$ (Etzler, 1987a, Table 4), In consequence, improved education for women has become a popular explanation of the general postponement of first births. The situation is too complex for a single-factor explanation, however, and it is questionable whether educational improvement has been sufficiently extensive to merit such a prime role in any case. Women in Sweden have certainly received more education in our younger then in our older conorts, but the most important change has been the increase in the per cent studying at ages up to about 19. This is well before the normal age at first childbearing, so the direct postponement effect of study activities must have been limited (though there will have been some effect of the increased educational level). In fact, our data show that a smaller proportion of the time was spent under ecucation among respondents at ages 18 and above in our youngest cohort than among women borm just five years earlier (Table 1).

A woman's ecucational level influences not only her family building. It is also the strongest determinant of her labor force participation after first birth among the factors at our disposal (Berminardt, 1986, 1987ab). Women with more education participate in the labor force to a mach higher extent than other women. They have done so over the entire period covered by our data, but market work has increased substantially in all educational groups and particularly among women with less education (Table 2). Even though things may turn out differently for an indivicual, most women surely see themselves as members of the labor force even after their first birth, at least among Swedish cohorts borm since the early 1950s. Therefore, it will have become progressively more important for women to establish themselves in the labor market before the advent of parenthood.

To secure a foothold in the labor market camot have been equally pressing for women in our oldest cohorts. Meny of our older women must have counted on being housewives during periods when they had small children. Instead of staking on a market occupation, many of them will have had to rely on adult education or will have had to accept relatively un-

[^3]qualified jobs when they went into the labor market after childrearing. Later cohorts will surely have wanted to avoid such a fate. In fact, they will have had mounting expectations concerming the content of the work they could see themselves putting much time into. Even now, at a time wen (oy Swedish standards) many young people may have a hard time finding permanent employment, there is much talk of the problems of enticing young men and women into taking factory jobs, for instance.

To see how age at entry into motherhood has been influenced at the various levels of education, we have partitioned our relevant data into three subsets according to educational level in any month (low, middle, high $)^{9}$ and have analyzed each subset separately. 10 This particular analysis only includes nulliparous women in full-time work ${ }^{11}$ who live in their first conjugal union. The basic time variable of our hazard analysis is time since entry into the union. As regressors we have included a woman's

[^4]birth cohort (to explore changes over time), her social background, and time spent in the labor force, 12, 13

Some results of hazard regressions with only main effects appear in Table 3. At all educational levels there has been a definite decline in first births over our cohorts. This is how a postponement would sinow up in this context. A woman's social background has had some effect on her first birth intensity, For instance, note how daughters of high and middle level white collar employees usually have lower first birth intensities than other groups. 14

The most interesting factor in this analysis is time spent in the labor force, however. As we would expect, women at the high educational level have depressed first birth rates at short labor force durations. This fits with the commonly held notion that those who expect to participate in market work after childbearing will first establish a station they can return to after matermity leave. 15 we have not found a similar pattern for women at the middle and low levels of education, In fact, labor force experience has not had much effect on first births at these educational levels. 16

12 The latter variable has been updated every month. Part-time months have been counted as half-months. For more information, see Hoem and Hoem (1987).

13 To simplify the pleture for the time being, we have postponed a study of the impact of her civil status to the next section, where we will see that first births depend greatiy on whether unions are marital or consensual.

14 There is a notale exception at the low educational level, This may be a result of some selection process. Individuals of a high social background take higher education more often than others. Those who do not may have been women who have really decided to devote themselves to early family building, or who have had this life path trrust upon them oy unplamed early pregnancy. The group is small in any case.

15 Note that it also goes against the idea that women who have spent more time getting an education should be in a hurry to start childbearing to catch up with others in their cohort who have had the time for one or two births already.

16 We did not include age at entry into current union because at each educational level it was too close to a linear relation with other covariates.

The intensity decline at long accumulated experiences may be an effect of subfecundity or an interfering effect of current age.


#### Abstract

The model is improved by the inclusion of the interaction between labor-force-time and birth cohort. 17 In the form given in Table 4 , the interaction terms reveal an effect with the same pattern at all ecucational levels: as a function of time in the labor force, the mode of each first birth intensity has moved upwards to much higher labor force experiences than before. (Think in terms of a plot of the items in each line of the table.) This is another observation that fits with the notion that women progressively have established themselves in the work-force before entry into motherhood. This does not ascertain whether there is such a causal direction in behavior, however; for accumulated labor force experience would tend to increase ${ }^{18}$ and hazard effects would probably show up in this mamer no matter what caused the postponement of first births when "every" young woman works before childoearing (if not longer). Nevertheless, it is interesting to see that the pattern extends beyond the more highiy educated to those who have left school at an eariy age.

Let us finally briefly touch upon the first childbearing of female students in conjugal unions. As one would expect, they have considerably lower first birth rates than women in the labor force. Students have less money and different immediate concerms. Their first-birth rates have also fallen considerably over our conorts, probably in reflection of the much increasing prevalence of cohabitation among students. In our older cohorts, it will usually have taken a pregnancy to trigger a conjugal union for most female students, so no woncer students who lived in unions had quite a high natality. (At that time, most unions will have been mar-. riages.) In younger cohorts, students will have started unions much more readily and most often without plaming or needing to accept rapid childbearing. The patterm is similar to that of women who enter their first union as adolescents.


## 6. Civil status and first births

Despite the great changes observed in union formation and age at entry into motheriood, first birth hazards have been surprisingly stable both in marital and in consensual unions. For married women the curves have a characteristic shape with two peaks (Figure 3). The first one oc-

[^5]curs about six months after the wedding and is cue to the fact that many women are pregnant at the wedding. The second peak occurs about a year after the wedcing and reflects the women getting pregnant a few months after marriage. It is striking how stable the shape and with some exceptions also the level of the curves for married women have remained over the cohorts. The most important exception from this consists of the diminishing group of women who got married before their 20 th birthday, That group has had a strongly decreased intensity of childoearing during the first nine months of marriage.

We have already mentioned that direct marriages have almost disappeared in Sweden, and that couples now have lived together, often for a considerable time, before any marriage. Among women borm in 1936-40 who married at ages 20-22, five per cent had lived together with their man at least 18 months before the marriage. By the cohort borm in 1951-55, the corresponding percentage had jumped to 41 . Thus, all the changes that materialized in the meantime had little impact on first births to women once they got married, and the lensth of any time spent in cohabitation with the man before marriage had little import as well. 19

Even though initial nonmarital cohabitation has become the rule rather than the exception, conabitational first birth hazards have not approached comespondins marital birth rates (Figure 3). First birth rates within conabitation are different from marital rates both in their level (which is much lower) and in their duration profiles (which are not equally dominated by early conceptions). Surely, this is partly due to the fact that many women who marry, do so because it is time to start a child or because a pregnancy has occurred already. This practice is still very much alive. For instance, cohabiting women have over four times as high a marriage hazard when they are pregnant as when they are not, and this relative risk has been rather stable across our conorts even though marriage intensities have aropped to a tenth of their original levels (B. Hoem, 1987).

## 7. Concluding remarks

The simultaneous decrease in the age at entry into the first conjugal union and postponement of the first birth may give the impression that a

[^6]majority of young swedes live together for years while they finish their ecucation and get established in the labor market before they decide that the time has come to start childbearing. For many couples, this image is correct, but the picture really is more complicated. Table 5 gives an overview of the distribution of the first demographic event 20 that women experienced during the initial four years of their first union in our cohorts, separately for those who started their first union as teenagers and those who started at ages 20-25. We see that entry into motherhood was the dominating first event in our two oldest cohorts. In fact, many were then pregnant at entry into the union, particularly among those who started very young, Very few of the unions that did not lead to childoearing, had dissolved during the first four years, and ten to twenty per cent remained intact but were still childless, as we go to the youngest cohort, the proportion entering motherhood during the first four years drops to less than half its initial value, and the proportion who experience the dissolution of their union before any childbearing increases radically. The proportion who just go on living in the union without getting a child increases as well, so that among those who entered their first union as teenagers, about a thirc falls in each outcome group in our youngest cohort. Evidently, many of those early unions without children are quite curable, but at least as many are not. For many women, it will be misleading, therefore, to speak of a deliberate decision to postpone childbearing after entry into a union. By choice or by chance, childoearing simply is not a natural aspect of their current lives. Since they largely have the means to avoid unplamed pregnancies, deferment of mothernood becomes a result of their circumstances.

This postponement of the first birth does not in itself lead to a drop in second births. Women who have taken the step into motherthood and whose union has remained intact, have also progressed to their second birth to the same high extent in all of our conorts despite the dramatic increase in labor force participation after the first birth ( E . Hoem, 1985). Any notion that Swedish women in general should increasingiy be satisfied with a single child is quite false as far as our data go.

[^7]
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## Tables

Table 1. Per cent of total exposure time spent in full-time studies, by cohort and age

|  | Cohort borm in |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |
|  | $1935-40$ | $1941-45$ | $1946-50$ | $1951-55$ | $1956-60$ |  |
| 17 | 27 | 34 | 42 | 56 | 60 |  |
| 18 | 23 | 29 | 33 | 41 | 34 |  |
| 19 | 20 | 25 | 27 | 28 | 21 |  |
| 20 | 17 | 20 | 24 | 25 | -20 |  |
| 21 | 15 | 18 | 21 | 22 | 19 |  |
| 22 | 12 | 14 | 16 | 17 | 17 |  |
| 23 | 10 | 10 | 10 | 13 | 11 |  |

Table 2. Per cent homemakers among women in conjugal unions one year after first birtin in various calendar periods, by edncational level

|  | Level of education |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Period |  |  |  |
|  | Low | Middle | High |
| Up to 1967 | 76 | 63 | 38 |
| $1968-74$ | 61 | 44 | 27 |
| $1975-80$ | 48 | 43 | 32 |

Source: Bermhardt (1987b), Figure 2.

Table 3. First birth in first conjugal union. Relative risks by educational level. Fitted by a hazard model with main effects only a

|  |  | Educational level C |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | LOW | Middie | High |
| Genort | 1936-40 b | 1 | 1 | 1 |
| Dom in: | 1941-45 | . 84 | . 95 | 1.24 |
|  | 1945-50 | . 74 | . 82 | . 88 |
|  | 1951-55 | . 55 | . 65 | . 49 |
|  | 1956-60 | . 35 | . 36 | . . |
| Daughter. Of (social backerround): | Unskilled worker b | 1 | 1 | 1 |
|  | Skilled worker etc. d | . 81 | . 92 | . 90 |
|  | Wh. col., mid.thi, e | 1.02 | . 83 | . 83 |
|  | Farmer or self-empl. f | . 96 | 1.05 | 1.18 |
| $\begin{aligned} & \text { years in } \\ & \text { labor } \\ & \text { force: } \end{aligned}$ | < 1 |  | 1.02 | . 25 |
|  | 1-2 | . 92 | . 95 | . 60 |
|  | 3-4 b | 1 | 1 | 1 |
|  | 5-5 | . 74 | 1.04 | . 60 |
|  | 7-8 | . 63 |  |  |
|  | $>8$ | . 53 | . 80 | .74 |

a Estimated in a hazard regression with factors as indicated. No interactions. Separate regression for each level of ecucation. Duration-time is from the onset of the first imion.
b Baseline level.
C For definition of levels, see footnote 7 .
d shilled workers or lower level white collar employees.
e Middle and high level white collar employees, including academics in liberal professions, business executives, etc.
f Farmers, small independent businessmen and craftsmen, etc.

Table 4. First birth in first conjugal union. Relative risks by educational level. Fitted by a hazard model with interaction between cohort and years in the labor force ${ }^{\text {a }}$

| Cohort | Years in the labor force |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 1-2 | $3-4{ }^{3}$ |  | 7-8 |  |
| bom in |  |  |  |  |  |  |
|  | Low level of ecucation |  |  |  |  |  |
| 1936-40 |  | 1.85 | 1 | 1.02 | . 44 | 49 |
| 1941-45 |  | 1.13 | 1 | . 77 | . 54 | 4 |
| 1946-50 |  | 1.18 | 1 | . 66 | . 84 | . 7 |
| 1951-55 |  | . 46 | 1 | . 98 | . 85 | . 63 |
| 1956-60 |  | . 28 | 1 | 1.36 |  |  |
|  | Midale level of education |  |  |  |  |  |
| 1936-40 |  | 2.15 | 1 | 1.66 | 1.10 |  |
| 1941-45 | 1.72 | 21.13 | 1 | . 78 | . 64 |  |
| 1946-50 | 1.71 | 1.04 | 1 | 1.52 | . 81 |  |
| 1951-55 | . 57 | . 92 | 1 | . 84 | 1,23 |  |
| 1956-60 | . 75 | 5.56 | 1 | 1.15 | . |  |
|  | Hieh level of education |  |  |  |  |  |
| 1936-40 | . 53 | . 45 | 1 | . 26 | . 38 |  |
| 1941-45 | . 17 | . 69 | 1 | . 51 | . 66 |  |
| 1946-50 | . 21 | 1.62 | 1 | . 82 | . 71 |  |
| 1951-55 | . 21 | 1.59 | 1 | 1.18 | 1.67 |  |

a Estimated in a hazard regression with these two factors and social background as regressors. The interaction was significant for the low and middle educational levels, but not for the high educational level. No further interactions were significant for any educational level. Separate regression for each level of education. Duration-time is from the onset of the first union.
b Baseline level.

## Table 5. Distribution of first demographic events curing the first four years after the start of a conjugal union

| Conort |  |  |
| :--- | :--- | :--- |
| borm in | Mumbera$\quad$Starting$\quad$First subsequent event Sepa- None |  |
|  |  |  |

Age 16-19 at start of union

## Fer cent

| 1936-40 | 93 | 85 | 3 | 12 |
| :---: | :---: | :---: | :---: | :---: |
| 1941-45 | 218 | 83 | 4 | 13 |
| 1946-50 | 271 | 70 | 14 | 16 |
| 1951-55 | 377 | 54 | 20 | 26 |
| 1956-60 | 200 | 36 | 35 | 29 |
|  | Age 20-25 at start of union |  |  |  |
|  |  |  |  |  |
| 1936-40 | 260 | 80 | 1 | 20 |
| 1941-45 | 539 | 76 | 5 | 19 |
| 1946-50 | 520 | 64 | 10 | 26 |
| 1951-55 ${ }^{\text {c }}$ | 406 | 47 | 17 | 36 |
| 1956-60 ${ }^{\text {d }}$ | , . | . | . |  |

a Remember that the numbers of respondents in the five quinquennial cohorts were roughly in the proportions 500: 1000: 1000: 1000:700.
b Conversions of consensual to marital unions not inciuded.
C We only include respondents who reported a union starting at least four years before interview and who had not had a child before the union started.
${ }^{4}$ Respondents borm in 1956-60 had only reached ages 20-24 at interview and are not included here.


Figure 1. Rates of dissolution of first conjugal union to women aged 16-19 at the start of the union, by cohort.


Figure 2. Rates of first birth by age and by cohort. Swedish women. Source: Unpublished data from Statistics Sweden.



Months since start of consensual union


Figure 3. Rates of first birth in first marriage (pane1s $A$ and $B$ ) or in first consensual union (panels $C$ and $D$ ), by cohort and by age at entry into the marriage or union.


[^0]:    1 This is facilitated by part-time work when the children are small.

[^1]:    2 we use the words "hazard" and "intensity" interchangeably.

[^2]:    6 since 197.5 , teenage abortions have decreased by a third (Statistics Swecen, 1980, Table 3.25; 1984, Table 3.24).

    7 Computed by us from unpublished data on proportions childiess provided by Statistics Sweden.

[^3]:    8 At ages 26-30, this effect is reversed.

[^4]:    ${ }^{9}$ For any month of observation, we computed the mumer of montris a woman had spent in school since the month of September in the calendar year of her sixteenth birthday. Normally, the months of July and August were not included. Her level of education wes then said to be low if that count gave less than 11 months middle if it was between 11 and 40 months, inclusive, and high if she had a count of more than 40 months and had passed at least the first semester's examinations at the university level. Women with more than 40 accredited months of ecucation but not a successful semester at the university level, were counted in the middie group. Consult $J$. foem (1986) for more information.

    For every woman, each montr of observation was included in the relevant data subset according to whether her level of education that month was low, middle, or high.

    10 Freliminary experiments incicated that we would need an uncomfortable number of interaction terms otherwise.

    11 Beside school (at the younger ages), full-time work has been the normal emoloyment status recorded in any month at the life stage in question. There has not been much reported part-time work before entry into motherhood. Very few women have given homemalsing as their employment before first birth, and the small and declining minority concemed will have been a select group with high birth rates. Stucents have had a childbearing patterm which differs from that of women in the labor force, and we shall return to it at the end of the current section.

[^5]:    17 The impovement is significant only for the two lower levels of edvation.

    18 Except for any increased time spent in study periods.

[^6]:    19 For more detalls about the impact of various factors on first wirths in consensual and marital unions, separately, see Etzler (1986, 1987).

[^7]:    20 The event in question is aiscolution of the union or entry into motheriood, We leave out conversions of consensual unions into marriages in this particular count.

