Social Policy and Recent Fertility Change in Sweden

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Sweden is currently experiencing a rise in period fertility that reflects a change in the time pattern of cohort fertility. Ultimate cohort fertility may eventually also rise as a result of this change. This note provides information on recent changes in childbearing behavior in Sweden and links certain features of these changes to Swedish social policy that, intentionally or otherwise, provides a financial incentive to the close spacing of births.

Fertility trends

In Sweden, as in many other industrialized countries, the period total fertility rate (TFR) stopped declining in the late 1970s and started rising in the mid-1980s. However, Swedish period fertility never fell to the very low levels reached and still largely maintained by a number of other European countries, such as West Germany, Switzerland, Italy, or Austria, and it has risen swiftly to a level that by the standards of the last quarter century is high for a developed country (see Figure 1). The Swedish TFR was never lower than 1.6 (1978 and 1983), and it has risen consistently through the 1980s to reach 2.02 in 1989. In all probability it will surpass the replacement level in 1990. Sweden was not a high-fertility country during the baby boom years, and it participated in the fertility dive experienced by most developed countries after the mid-1960s. Nevertheless, most other industrialized countries now have a lower TFR, and among Western European countries only...
FIGURE 1 Total fertility rate, selected European countries, 1977–89

the traditional outliers, Iceland and Ireland, have higher period fertility than Sweden.³

Current Swedish fertility trends are consistent with a general mild adjustment toward more moderate demographic behavior than was the case in the recent past.⁴ Demographic developments in Sweden have often been a precursor of more general trends; thus what has happened recently in that country may indicate what lies ahead for other populations.⁵
In Sweden fertility at ages 15–19 fell through the 1970s and has remained at a low level of about 11 births per thousand women through the subsequent period of fertility increase. By contrast, fertility has risen since the late 1970s for women aged 25 and older and recently has risen even for women aged 20–24 (see Figure 2). As a consequence, Swedish women in their early 30s now have somewhat higher fertility than women in their early 20s. This is a remarkable reversal of the pattern in the mid-1970s, when the younger group had twice the fertility level of the older one.

FIGURE 2  Age-specific fertility rates, Sweden, 1975–89
All in all, there has been a marked upward shift in the distribution of ages at childbearing. The median age of women at first birth has increased from around 24 years for the cohorts that started childbearing in the 1950s and 1960s to an all-time high of about 27 years for the cohorts born in 1959–62 that started childbearing around 1980 (see Figure 3). This is quite a late entry into motherhood by current international standards. For instance, the Norwegian cohort born in 1959 had a median age at first birth of 25.0 years, up from about 23 years experienced by cohorts born some 10 to 20 years earlier (Brunborg and Kravdal, 1986: 37). In fact, Swedish first-birth rates at ages 30 and above have been stable or increasing throughout the 1970s.

**FIGURE 3** Median age at first birth by mothers’ birth cohort: Sweden, cohorts born 1935–62
and 1980s (see Figure 4). In the late 1980s, first-birth rates have risen even for women in their 20s, as demonstrated by the curves for ages 22 and 27 in Figure 4. Corresponding diagrams for rates of second and third births for single-year age groups (not shown here) depict similar trends. Most age groups above the teens now contribute to the general increase in Swedish fertility, both at first childbearing and at higher birth orders.

Figures 5–7 demonstrate the underlying trends. Figure 5 plots second-order birth rates by age of first child for selected birth cohorts of mothers. The diagram, one of several plots of second- and third-order birth rates that I have drawn for a range of ages at last previous birth, shows how the rate

**FIGURE 4** First-order birth rates for single-year age groups, Sweden, 1961–88

![Graph of birth rates](image-url)

*Source: Statistics Sweden, unpublished data.*
has increased over the three cohorts at each duration since first birth. Figures 6 and 7 display the time pattern of the increase more clearly. Their four curves show the rates for second and third birth when the last previous child was 1, 2, 3, or 4 years old, plotted against the (approximate) calendar years in which the mother was exposed to the corresponding "risk" of further childbearing. (Note that Figures 6 and 7 have been scaled differently to reflect the much lower level of third-birth fertility.) The diagrams exhibit quite strong period effects; the duration-specific rates move almost in lockstep, and they all increase from a low point in about 1976 or 1977. Corresponding curves for other ages at last previous birth are quite similar.

The role of public policies

I believe that recent demographic developments in Sweden can in part be attributed to the low-key and largely indirect pronatalism of Swedish social policies. I know of no other country with a similar political system and at a comparable stage of industrial development that has so consistently tried to facilitate women's entry into the labor market and their continued attachment to it at minimal cost to childbearing and childrearing. Ideally, the record-high and continuously growing labor force participation of Swedish women, combined with comparatively high and generally increasing fertility,
FIGURE 6  Second-order birth rates of mothers with a first birth at ages 27–28, by calendar year at risk: Sweden, 1960–87

SOURCE: Statistics Sweden, unpublished data.

should be a reward for such efforts. It is tempting to conclude that fertility is responding to the cumulative effects of the determined expansion in public daycare, child benefits, parental leave provisions, parents' rights to part-time work, and similar measures. Attitudinal changes have accompanied such measures. A combination of public campaigns for responsible parenthood and a new taste for "self-realization" and "the good life" among young people (Rolén and Springfeldt, 1987) must have been among the forces driving the postponement of entry into parenthood. The marked fertility
increase at ages that were previously regarded as high for childbearing reflects a recuperation as couples have their desired number of children after a late start in a society that helps reduce obstacles to parenthood at mature ages. Swedish policies seem to have been successful in softening the effects of women’s labor force participation on the daily practicalities of their home life sufficiently to reduce the inherent role conflict to a manageable level. It may be part of this picture that women limited their childbearing during the late 1960s and the early 1970s when they felt like pioneers moving into the
labor market and reorganizing their home lives, while current cohorts feel less constrained, now that their rights have been firmly established and greatly strengthened. In addition, having several children may have acquired an increased prestige value as people’s economic situation has improved.

If indeed social policies are influencing reproductive behavior, the demographic effects seem to work primarily via the impact on the timing of childbearing. There has been a striking stability in Swedes’ apparent preferences for their number of children. In fact, the two-child norm has probably been strengthened. Cohort total fertility has remained at a level just below 2 (Calot, 1990: Figure 2), and there is no evidence for a substantial increase in permanent childlessness. There is no sign of the growing popularity of childless or one-child families that demographers have recorded in central and southern Europe.

To a large extent, the recent variations in the period TFR reflect the normal aggregation effects that ensue when several cohorts in a synchronized manner first postpone childbearing and subsequently compensate for it—in the case of Sweden so far mainly by shortening birth intervals. As was seen in Figure 1, the same general trends are apparent, though to a much smaller extent, in several other countries, some of which have much less generous family policies than Sweden. Seeing a plausible connection between public policies and demographic consequences, however, is one thing; providing acceptable documentation of a direct causal connection is another. Causality is obscured when rights and benefits (and the extent to which people make use of them) expand gradually and in step with other developments, and when policies in turn are revised in response to demographic behavior. For instance, it is not easy to locate the effect on fertility of such minor policy revisions as the incremental growth of the daycare system or the recent extension of the length of paid maternity leave from nine to 12 months during a period of changing labor market conditions and increasing female labor force participation (Sundström, 1987, 1989).

On occasion, however, features appear in demographic data that may plausibly be interpreted as a response to a policy change. I believe that Figures 6 and 7 and the corresponding diagrams for other age groups showing second and third birth rates at last previous birth may contain such features. In most such diagrams, the curve for an additional birth to mothers of one-year-olds is particularly steep during the 1980s. Usually, the curve for mothers of two-year-olds is also steeper than for mothers of older children. This represents an extra increase in childbearing at quite brief durations since the last previous birth, over and above the general increase in fertility at all normal durations. This extra quickening appeared during a period when an understanding of the favorable financial consequences of a particular item in the social insurance reforms spread among those who could benefit from it. We turn now to a discussion of this phenomenon.
The extension of income compensation beyond the next birth

Since before World War II, women working in paid employment in Sweden have had the right to a paid maternity leave after the arrival of any child. In 1974, analogous rights were extended to men and included the option for both parents to share the paid leave in the manner they see fit. The income compensation is determined by the work-related income received by the leave-taker in a specified period before the birth. Initially, it was advantageous to postpone the arrival of a subsequent child until income-compensation eligibility had been re-established by further accumulation of job-related income. During the 1970s, however, it became established legal practice for a parent to retain the right to the level of income compensation paid after one birth during parental leave for the next birth, provided the interval between the two births did not exceed the period of statutory leave plus six months. The parent did not have to generate any job-related income in the interim. In 1974, the interval between births could not exceed 12 months according to this rule, but in practice it could be extended by various devices such as sick leave or accumulated paid vacation, up to a total of about 15 months. In subsequent years, the eligibility interval grew in step with the extension of the statutory parental leave, to a maximum in 1979 of 15 months (plus any vacation due and sick leave admitted; see Figure 8). This benefit extension was itself made statutory and expanded to 24 months in 1980; it was further extended to 30 months in 1986. Such incremental extension of benefits has been typical of the development of social policies in Sweden.

With an eligibility interval as long as two years or more, many parents find it manageable to have two children sufficiently closely spaced to take advantage of the corresponding benefit. If the next child is born after the period of eligibility has been exceeded, the mother’s income compensation will be eroded if she works part-time to take care of her youngest child, as many women do in Sweden, or if she does not work. Thus, couples have a short-term economic motive to stay within the eligibility interval. Given the uncertainties involved in conception and pregnancy, some will fail to achieve this goal and will give birth to the next child too late. We should expect, therefore, the next-order birth rate to get a special boost when the last-born child is one or two years old. This is precisely what we observe in Figures 6 and 7.

When a woman takes a leave of absence to look after her family, she sacrifices further job experience and skill development (and other forms of job satisfaction), in some cases for an extended period. By bearing three children two years apart, a woman can easily remain on leave from an employer for five consecutive years or even longer under current regulations. The social policies and the patterns of fertility I have just described indicate
FIGURE 8  Birth interval that gives the same maternity-leave payment as for the previous child: Sweden, 1974–90

![Birth interval diagram]

SOURCE: Swedish Social Insurance Board.

that to gain a short-term income advantage\(^2\) while their children are very small, many Swedish couples are willing to adjust the timing of their childbearing after the first birth, even at a possible long-term cost to the woman’s career. This behavioral response suggests that childbearing preferences have priority over the wife’s job prospects for many couples at the prevailing level of financial incentives and given current expectations about the family’s economic standard of living.

Notes

Britta Hoem’s insights have been most useful during the preparation of this note. The author has also benefited from discussions with Lars Østby, Sten Martinelle, and Marianne Sundström. Figures 4 to 7 are based on special tabulations made in Statistics Sweden at the author’s request by Lars Nordin with the advice of Jan Qvist.

1 The current Swedish replacement level is a TFR of 2.09. In January through October 1990, the TFR was 2.13. As is seen in Figure 1, Norway closely trails Sweden. According to sources in the Central Bureau of Statistics of Norway, its TFR was 1.97 in the first half of 1990. The two TFRs for part of 1990 have been used in Figure 1.

2 For the latest data available, see van de Kaa (1988), Kono (1990), Monnier (1990), INED (1989 or issue 4–5 of a later volume), Council of Europe (1990 or the corresponding volume for a later year), or Eurostat (1990 or later). For a longer perspective on period fertility and for cohort fertility, see Brunborg (1989), Sardon (1990), and Prioux (1989).

3 Ireland’s TFR was 2.11 in 1989 and had been falling consistently over the preceding years; Iceland’s was 2.27 in 1988 and 2.21 in 1989, up from an all-time low of 1.93 in 1986.

4 Demographic changes include a stabilization of divorce rates since the late 1970s (Hoem, 1990), some decline in teenage cohabitation since the mid-1970s, and, after two
decades of general decline, a stabilization of (and lately even a slight rise in) age-specific rates of first marriage and of remarriage through the 1980s (Statistics Sweden, 1989: Diagram 10).

5 This analysis is based on data from Sweden’s official statistics system, and it does not include marital or cohabitational status for two reasons: (1) Even Sweden’s official statistics do not contain detailed information about cohabitational fertility, so inclusion of this important element in Swedish family dynamics is precluded. (2) It would have been possible to include trends in marital fertility, in the manner of Qvist (1987), but I have decided against doing so. Interpretation of marital fertility differentials is made difficult by the shifting age at marriage. This makes women marrying at age 23, say, increasingly selected toward the highly family-oriented (and therefore highly fertile). Conversely, those marrying at age 32 are increasingly selective of low-fertility individuals as child-bearing progressively becomes normal behavior at this age. Instead of helping to de-compose fertility trends into understandable elements, the analysis of trends in marital fertility by age at marriage would induce selectivity effects that could easily disturb rather than facilitate the understanding of child-bearing trends.

6 For more detail and many more countries, see Qvist (1987), Calot (1990), and Sardon (1990).

7 This pattern is shared with the other Scandinavian counties and, largely, with West Germany, the Netherlands, Switzerland, and Italy. See Sardon (1990), Östby (1990), and Texmon and Östby (1990).

8 Data on the cohort median (or mean) age at first birth are not available for any other countries for the youngest cohorts. (See Prioux, 1989: Table 2, for selected cohorts born up to 1955.) However, the more recent Swedish cohorts have a high mean age at childbirth (counting births of all orders) for a Western European country (Sardon, 1990: Table 11).

9 Graphs for other ages are not shown here. I selected ages 27–28 at first birth as an illustration because this is a typical age at entry into motherhood in Sweden. Compare Figure 3.

10 Each curve in Figure 5 is a plot of ordinary occurrence/exposure rates (per thousand woman-years) at various durations since the birth of the first child, for women of parity 1 who were born in selected single-year calendar periods. Duration 0 means that the first child is less than a year old, duration 1 means that the child is 12–23 months old, and so on. These rates correspond to the empirical $m_i$ values of a single-decrement life table. Since rates like those in Figure 5 easily add up to more than 1, it may be prudent to note that cumulative $m_i$ values up to age 3, say, of the first child will not give the probability that a second child has arrived by that age. To derive that probability, the rates must be converted to values corresponding to $l_i$ values in a life table.

11 Figures 5 and 6 are based on the same table of second-birth rates to mothers of parity 1 who were 27–28 years old at first birth. The table has one row for each year of birth of the mothers and one column for each single year of age of the first child. Selected rows of this table were plotted in Figure 5. Consecutive columns of the same table are plotted in Figure 6, shifted over by one year per column in order that curve points corresponding to the same calendar period of risk have the same value on the x-axis in the diagram. For instance, the group of uniparous women born in 1941 who entered motherhood at age 27–28 did so in 1968–69 and are at risk in 1969–71 of having their second child while the first child is one year old. In Figure 6, their second-birth rate at duration 1 (12–23 months since child 1) has been plotted over the point marked 1970 on the x-axis. Their rate at duration 2 (24–47 months since the first birth) has been plotted over the point corresponding to 1971, and so on. Figure 7 has been plotted in a similar manner.

12 For a recent update on Swedish public policies relevant to demographic behavior, see Sundström (1990).

13 The introduction and subsequent erosion of such a “pioneering effect” would accord neatly with the trends shown by the curves in Figure 7.

14 Only the future can tell whether there will be an increase in cohort total fertility due to the prolonged period of “risk” of further
childbearing produced by the closer spacing of births.

15 Some 12 percent of women have remained permanently childless in each Swedish cohort born in the late 1930s and in the 1940s (Qvist, 1987: Table A5). In the highest available estimate, Martinelle (1990: 26) suggests that final childlessness may rise above 16 percent for cohorts born in the late 1950s and even slightly higher for later cohorts. Some other countries, including the United Kingdom and the Netherlands, have already gone well beyond such levels (Sardon, 1990: Figure 24; Prioux, 1989: Figure 1).

16 Höhn and Luscher (1988: 324) write about a tradition of acceptance of childlessness in Germany. Huínink (1989) notes a polarization between childlessness and two-child families, with no increase in the portion of single-child families.

17 Public policies probably have a much stronger influence on women's labor force participation than on their childbearing, at least in Sweden.

18 A satisfactory investigation will need to involve international comparisons, say of the type found in the study of teenage pregnancy conducted by the Alan Guttmacher Institute (Jones et al., 1986), a venture far beyond the scope of this note.

19 Parents have the same rights in connection with an adoption as with a birth, but for simplicity we exclude adoption in the following discussion.

20 In 1988, about seven-eighths of all mothers of children aged 1 through 6 years were in the labor force; two-thirds of these women worked part-time (AKU, 1988).

21 Martinelle (1989) was the first to demonstrate that the pace of childbearing has increased in Sweden among those who have entered motherhood since the late 1970s, and he was the first to propose the "eligibility interval" explanation.

22 Parents may also see a practical advantage in concentrating the work involved in caring for infants and young children over a relatively brief period in their lives by spacing births closely together.

References

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