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*Research Materials*

**Demographic trends in Sweden:  
An update of childbearing and  
nuptiality up to 2002**

**Gunnar Andersson**

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## Table of Contents

1	Our update	96
2	Fluctuating fertility in Sweden – at present being manifested in increasing birth rates	97
3	Long-term decline in the propensity to marry – but a moderate upsurge in marriage formation at the turn of the century	97
4	Long-term increase in Swedish divorce risks – but no further increases 2001-2002	98
5	Acknowledgments	98
	Notes	98
	References	99
	Figures and Appendix	100

## **Demographic trends in Sweden: An update of childbearing and nuptiality up to 2002**

**Gunnar Andersson**<sup>1</sup>

### **Abstract**

In the present note, we present the main features of recent trends in vital family-demographic behavior in Sweden. For this purpose, published indices of marriage, divorce, and childbearing risks by calendar year are updated by adding another two or three years of observation to our series. We demonstrate that the latest trend reversal in Swedish birth rates, which occurred at the end of the 1990s, continued to manifest itself in increasing propensities for childbearing during the early years of the 21<sup>st</sup> century. The rise pertains to all birth orders. Marriage propensities showed an increase as well, however, to a large extent expressed in a short-term development that was prevalent at the turn of the millennium. The previous long-term trend of rising divorce risks leveled off during the first two years of the new century.

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## 1. Our update

We provide an update of previous presentations on trends in family-demographic behavior of women in Sweden (see Andersson and Liu 2001 for the most recent version), covering childbearing and nuptiality developments up to 2002. These trends are presented in the form of a number of calendar-year indices on childbearing, marriage, and divorce risks (Figures 1-8). As an additional service, we attach an Excel file that contains the calendar-year indices themselves to the electronic version of this note, published in *Demographic Research*.

Our calculations are based on data derived from the Swedish population registers, made available to us by Statistics Sweden. We have access to information on the dates of all births and civil-status changes in Sweden of all registered women born in that country. Our childbearing analyses are based on women born in Sweden since 1925, with a presentation of childbearing trends in 1961-2002. Divorce registers were not reliable before 1968; therefore we restricted our study on civil-status changes to 1971 and onwards. It is based on women born in Sweden after 1945.

Following a method suggested by Hoem (1991b, 1993) we provide family-demographic trends by using time series of indices on the propensity of a woman to enter marriage, to divorce, or to give birth during a specific calendar year. The indices are given relative to a suitable baseline year in the same manner as a price index reflects prices relative to a selected year. For example, a divorce index of 1.20 for a certain year means that the risk of divorce was 20 percent higher in that year than in our baseline year. In our calculations, we standardize for the effects of a number of demographic background variables (Note 1), which means that we control for the effect of compositional changes among women over the categories of these variables. We focus explicitly on the effect the number of previous live births has on demographic behavior in that we present separate indices for women at different parities. For a thorough description of our system of period analysis, see Andersson (2001). Additional information on specific aspects of Swedish divorce dynamics can be obtained from Andersson (1997); related information on marriage-formation patterns and childbearing dynamics are provided by Andersson (1998) and Andersson (1999), respectively.

## **2. Fluctuating fertility in Sweden – at present being manifested in increasing birth rates**

In recent decades, childbearing trends in Sweden have been highly volatile (Andersson 1999; for a comparison with neighboring Denmark and Norway, see Andersson 2004). First-birth fertility of younger women declined continuously from the mid-1960s to the mid-80s; from the early 80s it rose markedly for women in their 30s and 40s, altogether reflecting a general postponement of entry into motherhood (Figure 1). During the 1980s, birth propensities increased for younger childless women, too, as well as for mothers at various parities (Figures 1-3). The 1990s, by contrast, were characterized by strong declines in birth risks. As in the 1980s, this trend was followed by practically all demographic sub-groups of women. We have observed yet another uniform trend reversal towards the end of the 1990s, however (Andersson and Liu 2001): Birth propensities of mothers (Figures 2-3) and childless women aged 31 and above (Figure 1) experienced another increase after 1997. The rise continued without interruption through 2001 and 2002. For younger childless women (Figure 1), a new trend can be noted too, as birth propensities have remained stable during the five years since 1998. As for our update, this also holds for 2001-2002. Interestingly, the trend reversal in 1998 is not evident if access is restricted to aggregate data such as the Total Fertility Rate (see Appendix: Figures A1-A2). Sweden saw a TFR of 1.50 in 1998 and 1999, the lowest ever recorded for that country. (This compares to 1.65 in 2002.) Our presentation enables deeper insights into the underlying behavior of different subgroups of Swedish women, revealing to greater precision the occurrence of important changes in childbearing dynamics.

## **3. Long-term decline in the propensity to marry – but a moderate upsurge in marriage formation at the turn of the century**

During the 1970s, the propensity to marry decreased dramatically and continued to decline during the subsequent two decades, although at a much more moderate pace (Andersson 1998). In sharp contrast to this long-term trend, a spectacular but temporary rise in marriage propensities occurred in 1989 in response to the introduction of new rules concerning eligibility for a widow's pension (see Hoem 1991a for a discussion.) Interestingly, we find yet another – temporary – increase in marriage formation in 2000, but at a much smaller scale (Figure 4). Marriage propensities at that time increased for never-married women at all parities (Figure 5). Marriage propensities of first-divorced women increased as well (Figure 6). The subsequent moderate fall-back in marriage-

formation intensities of the never-married indicates that the turn of the millennium may have caused an additional number of people to enter marriage in that year. Nevertheless, marriage propensities have remained higher in 2001 and 2002 than immediately before this last upsurge. It remains to be seen whether this constitutes a lasting development.

#### **4. Long-term increase in Swedish divorce risks – but no further increases 2001-2002**

The divorce risk rose sharply in 1974 in response to the liberalization of divorce legislation in that year. From the end of the 1980s onwards, standardized divorce risks have increased again but this time more gradually (Andersson 1997). The rise in 1974 was mainly due to a growing propensity for divorce among childless women, while the increase from the late 1980s onwards can be attributed to a rise in divorce risks for mothers, who constitute the vast majority of married women. The update reveals that the trend of increasing divorce risks leveled off during the first two years of the 21<sup>st</sup> century (Figures 7-8).

#### **5. Acknowledgments**

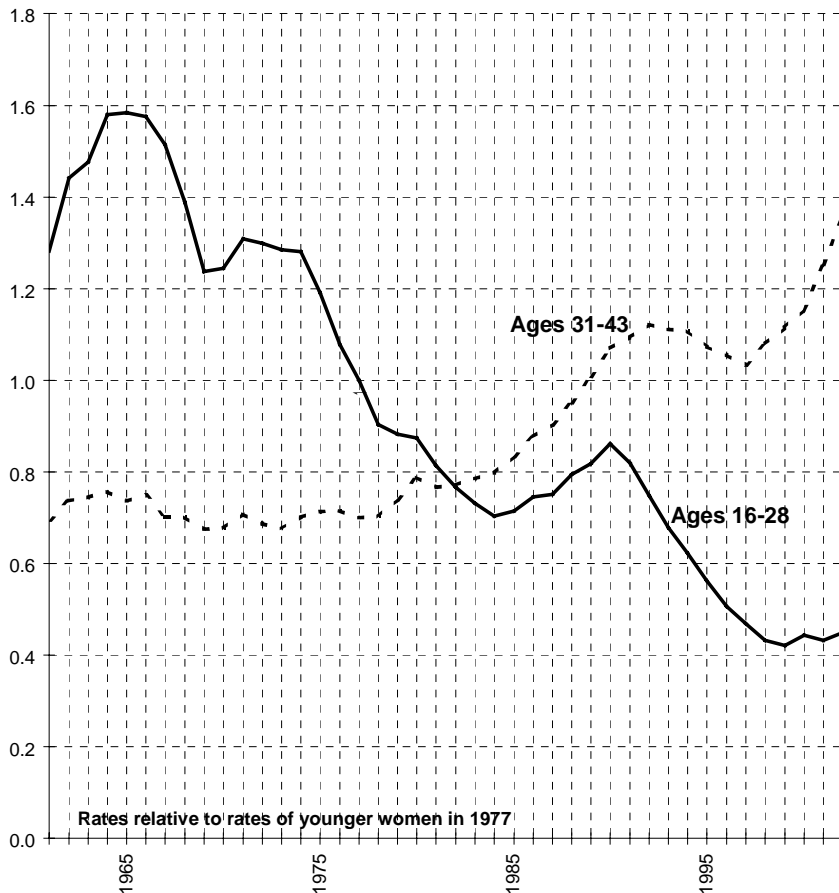
I thank the anonymous reviewers of *Demographic Research* for their very helpful suggestions and comments. In addition, I thank Susanne Backer for language editing.

#### **Notes**

1. We standardize for the most suitable representations of age, parity, premarital childbearing, and the durations since marriage formation, divorce, and any last previous birth; see the subheadings of Figures 1-8.

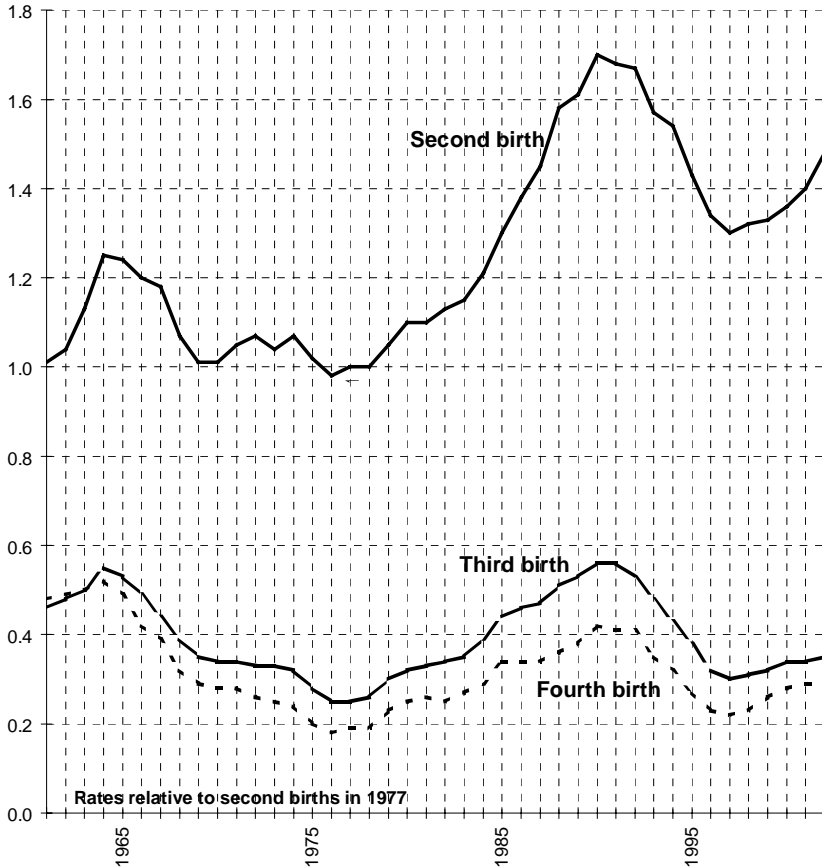
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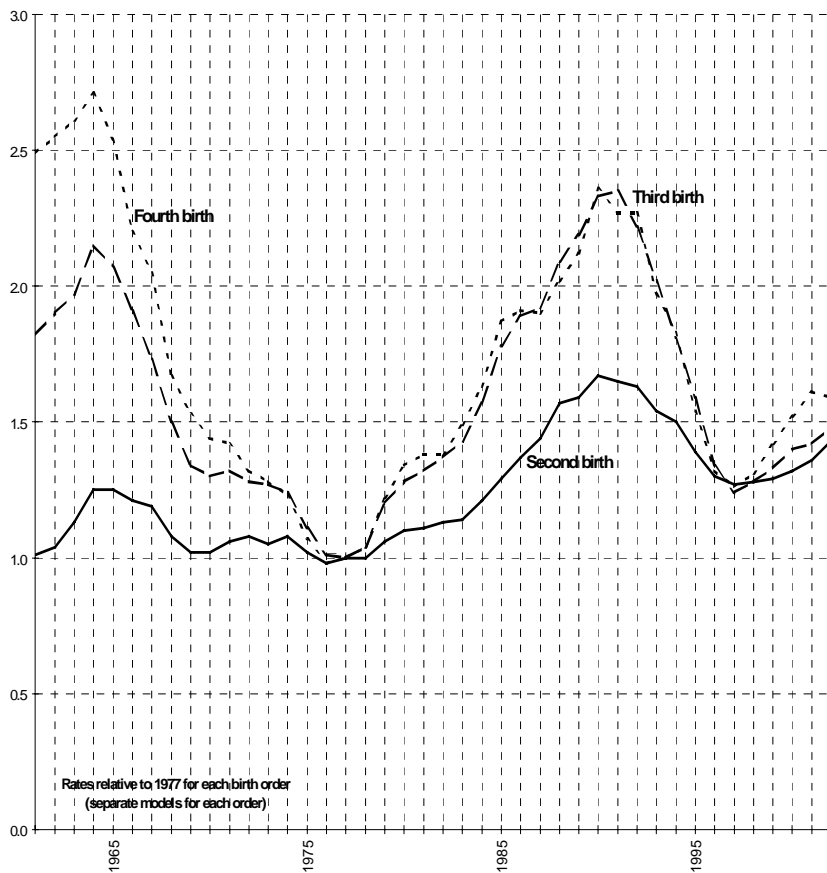


**Figure 1:** Annual index of first-birth rates. Swedish childless women, 1961-2002, by group of ages, standardized for age in single years.





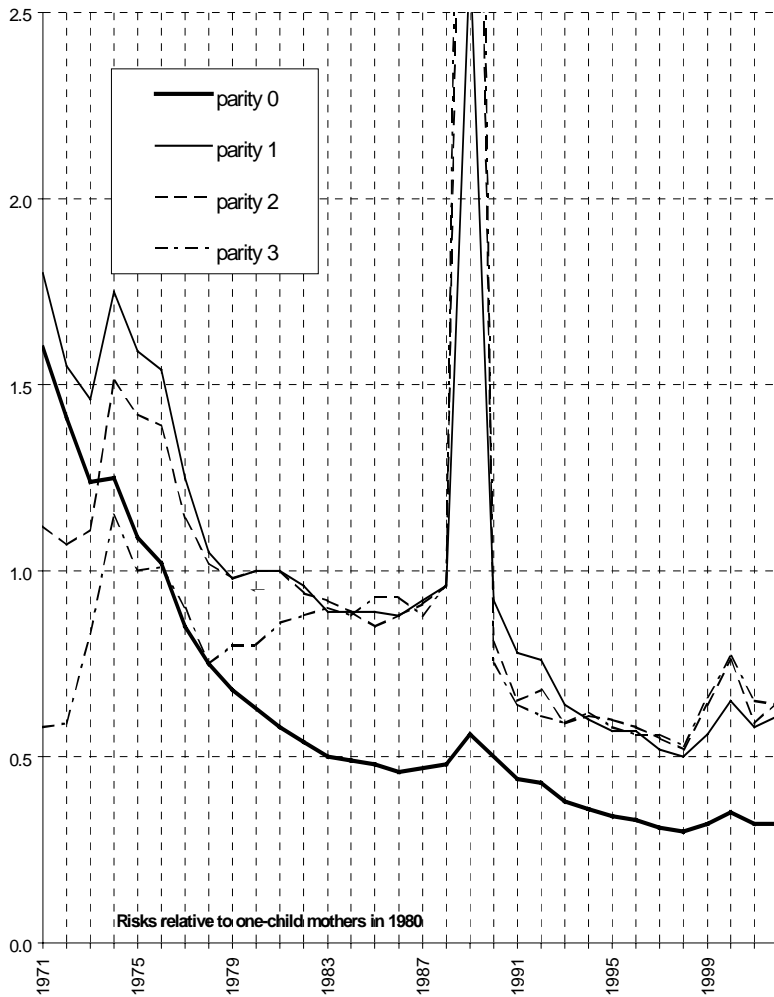
**Figure 2:** Annual index of second-, third-, and fourth-birth rates. Swedish mothers, 1961-2002, by birth order, standardized for age of mother and duration since previous birth.



**Figure 3:** Annual index of second-, third-, and fourth-birth rates. Swedish mothers, 1961-2002, by birth order, standardized for age of mother and duration since previous birth.

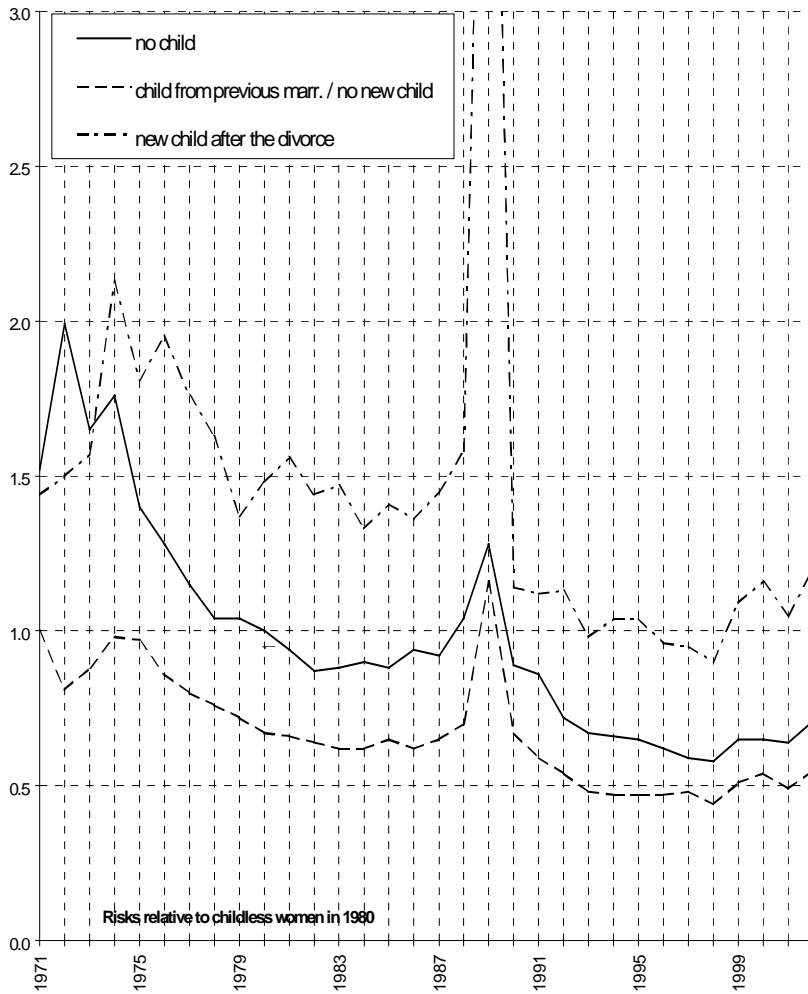


**Figure 4:** Annual index of marriage-risk level. Never-married Swedish women, 1971-2002, standardized for parity and age.



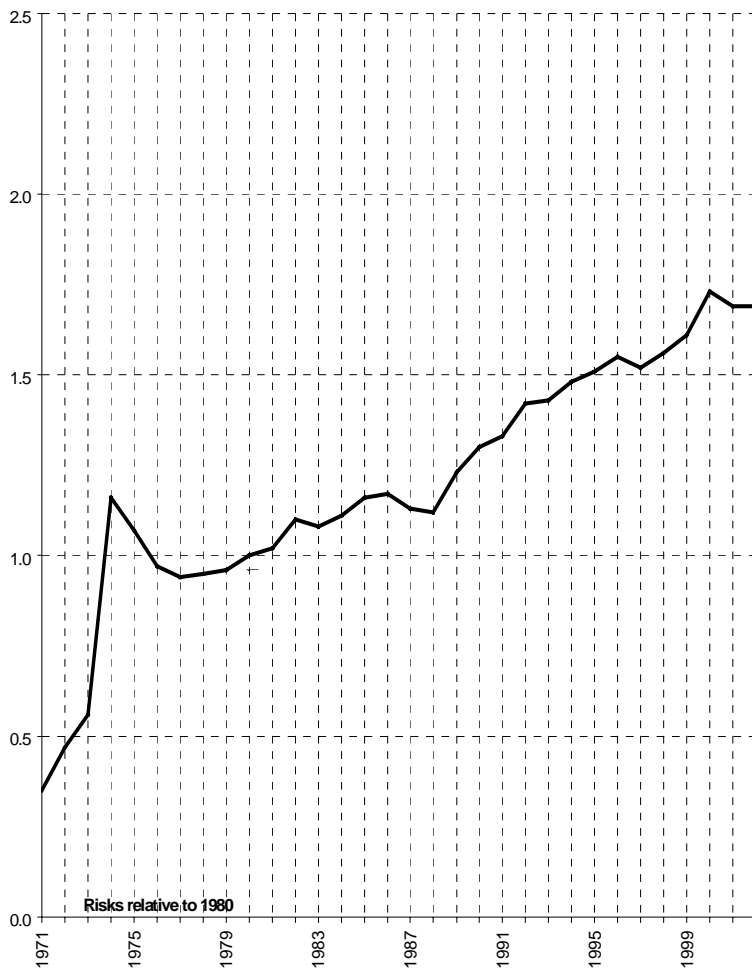
**Figure 5:** Annual index of marriage-risk level. Never-married Swedish women, 1971-2002, by parity, standardized for age.

Note: Relative risks of mothers in 1989 = 2.65 for parity one, 4.83 for parity two, and 5.81 for parity three.

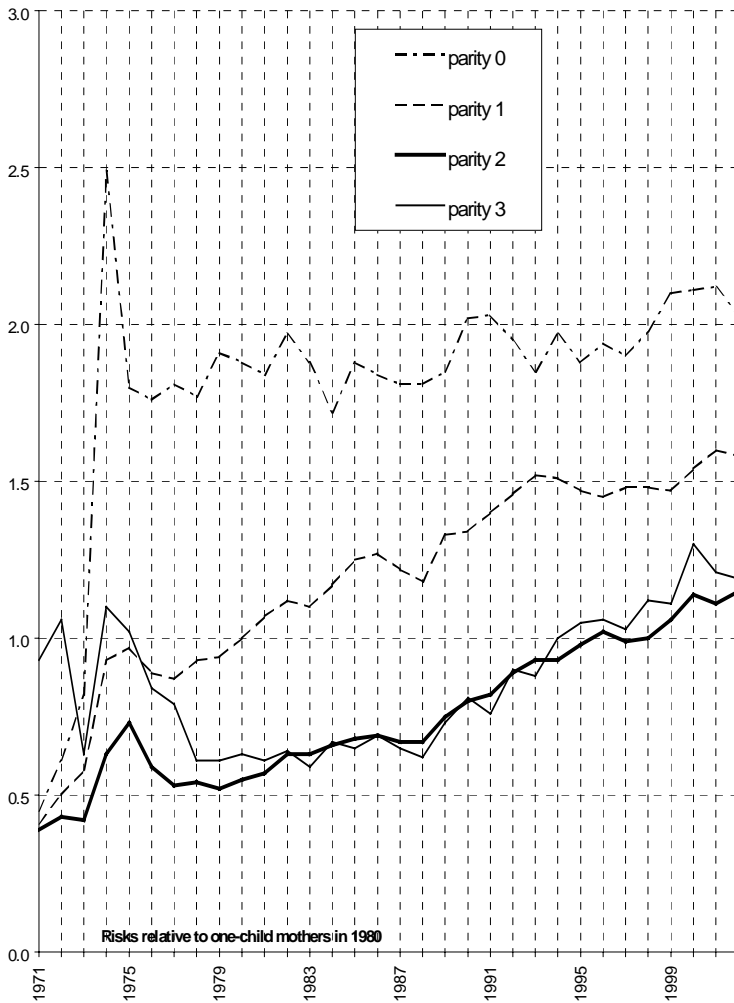


**Figure 6:** Annual index of remarriage-risk level. First-divorced Swedish women, 1971-2002, by parity, standardized for age and time since divorce.

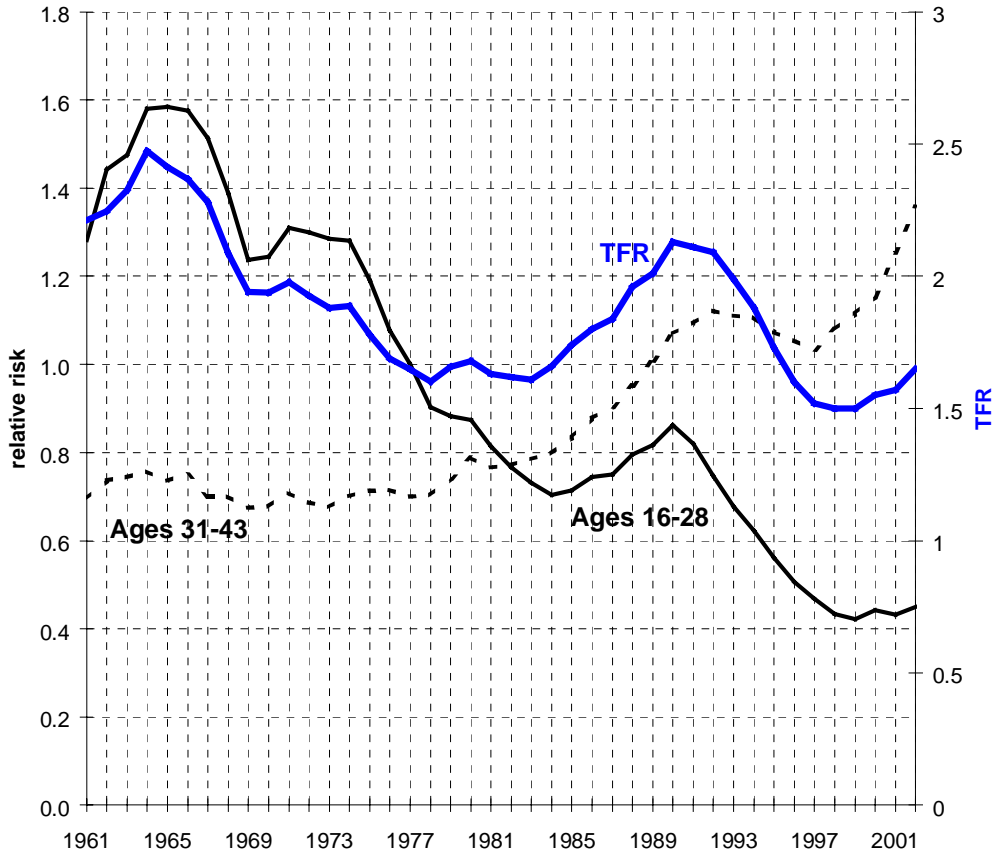
Note: Relative risk in 1989 for women with new child after the divorce = 5.09.



**Figure 7:** Annual index of divorce-risk level. First-married Swedish women, 1971-2002, standardized for age at marriage, parity, premarital childbearing, duration since previous birth, and duration of marriage.

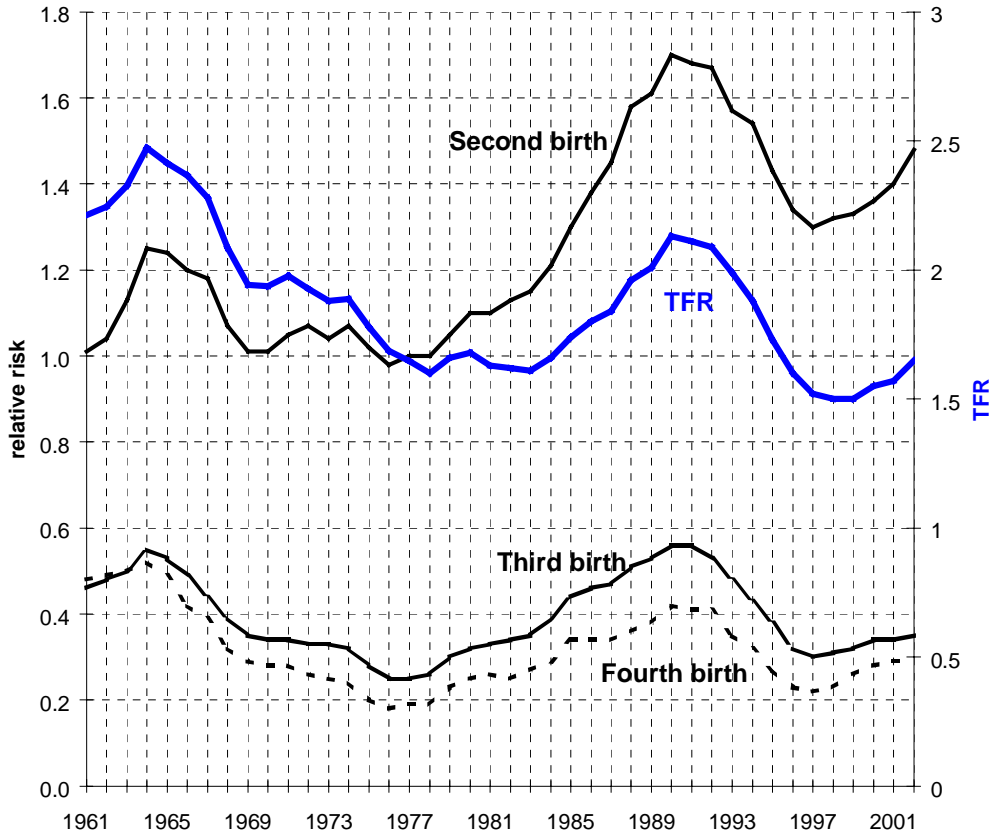


**Figure 8:** Annual index of divorce-risk level. First-married Swedish women, 1971-2002, by parity, standardized for age at and duration of marriage. Risks for mothers also standardized for duration since previous birth and premarital childbearing.



**Figure A1:** Annual index of first-birth rates (as of Figure 1) vs TFR of Sweden, 1961-2002.





**Figure A2:** Annual index of second-, third-, and fourth-birth rates (as of Figure 2) vs TFR of Sweden, 1961-2002.

