FROM MARRIAGE TO COHABITATION: FAMILY FORMATION AND PARENTHOOD IN DENMARK

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Purpose

The purpose of this paper is to analyse the changing relationship in Denmark between family status and parenthood across cohorts. The norm from 'the good old days' of getting married before having children has almost vanished in favour of having children before getting married – 46 % of children in Denmark today are born outside of marriage. We analyse the changing relationship over three birth cohorts: 1954, 1966, and 1978, and analyse the changing relationship over time using event history analysis.

1. Motivation/background

In Denmark, like in other Western countries, there is an ongoing public debate about fertility levels made topical by the challenges of an aging society. Denmark, however, has been quite successful in maintaining a relatively high level of fertility – the total average fertility rate was 1.9 in 2008. Part of the explanation for this fact is the existence of high-quality day care that makes it possible for Danish mothers to combine family and work. Other Western countries have much lower fertility rates and also lower female labour force participation rates.

Looking at the past decades, fertility patterns in Denmark have changed dramatically. The average age of first-time mothers has increased from 27 years in 1960 to 30.5 years in 2008 (Statistics Denmark). For men, the development has been similar and the average age at which men become first-time fathers increased from 30 years in 1980 to 33 years in 2006 (Statistics Denmark). So far however, this increase in the age of parents has not implied that fewer children are born, but rather that parenthood is postponed. This postponement of childbirths is identical to what is observed in many other countries.

The share of women and men having children at different ages is depicted in Figure 1a and 1b for three birth cohorts: 1954, 1966 and 1978. At age 40, 86 % of the women born in 1954 and 1966 have children, while 76 % of the men born in 1954 and 1966 have children. For the cohort born in 1978, we cannot yet determine the

share having children at age 40. However, it is clear that the postponement continues for this generation as fewer women and men have had a child by age 30 compared to the older cohorts.

In addition to the development in fertility patterns, another remarkable change has taken place in Denmark – the change from marriage to cohabitation among Danish parents. Since 1960, the average age at first marriage has increased by 10 years for women and 9 years for men, implying that average age at first marriage is now higher than average age at first child for both women and men, see Figure 2. A consequence of this is that while 8 % of Danish children were born outside marriage in 1960, this share had increased to 46 % in 2008 (Statistics Denmark).

The dramatic change in family patterns over time is evident from Table 1, where we depict the family status at age 30 for the three birth cohorts: 1954, 1966 and 1978. There is a particularly large change between the two youngest cohorts in the marriage share. For the 1966 cohort, 63 percent of the women and 57 percent of the men were married by the age 30; but for the 1978 cohort these figures have dropped to 29 percent for women and 16 percent for men. The change has not only been large, but has also happened very fast, and is due to an increase in the share of singles as well as an increase in the share of cohabiting couples.

Our knowledge about these changes in family status and the relationship between family status and parenthood is very limited and, hence, the purpose of this paper is to study this relationship in the Danish context. The analyses use data for three birth cohorts: 1954, 1966 and 1978, described in the next section. An outline for the analyses that will be part of the paper is found in section 3.

2. Data

The data used for this paper are from Danish administrative registers. We have information on three birth cohorts: all men and women born in Denmark in 1954, 1966 and 1978. Immigrants are not included in the sample. We only include Danes that are continuously present in Denmark as we do not have information about events taking place outside of Denmark.

We have access to detailed information on family characteristics and socio-economic factors from 1980-2007. The family characteristics include family type (marital status), number of adults and children in the household (own children and/or stepchildren), and region of residence. The socio-economic factors include education (length and type), labour market status, occupation, work experience and income. We have this information for all individuals in the sample (i.e. all individuals born in one of the three years) as well as for any spouse they have had during the period 1980-2007 (whether married or cohabitating). In addition, we

have detailed information on fertility so that we are able to identify all births of women in the sample as well as births where men in the sample are registered as the father.

3. Analyses

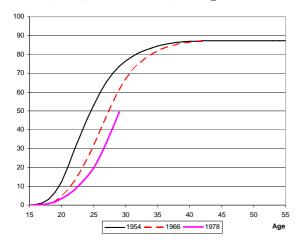
The demographic development in Denmark during the past few decades suggests that the pathways from being single to marriage and parenthood have changed dramatically and the empirical analyses of the paper will look into this in more detail.

The starting point of the analyses is to map the relationship between family status (marriage versus cohabitation) at the birth of children for women and men from the three cohorts. In this analysis, we distinguish between the birth of the first child and the birth of succeeding children. This mapping will provide a much-needed overview of the changing patterns from the perspective of children being born.

Next, we analyse changes across the three cohorts in the pathways to family formation and parenthood. For this analysis, we apply event history analysis. In the first part of the analysis, we focus on the transition from being single to being a couple. We apply a competing risks duration model where the two transitions modelled are to marriage and cohabitation, respectively. In the second part of the analysis, we focus on the transition to parenthood also applying a duration model. This analysis is limited to couples and we let the probability of having a first child differ between married and cohabitating couples. For some cohabitating couples, having the first child is preceded by marriage which will also be taken into account in the modelling. Both nonparametric and parametric models, which include important explanatory variables such as education and labour market status, will be estimated. We will estimate the models separately for each of the three birth cohort because we want to focus on changes in the pathways over time.

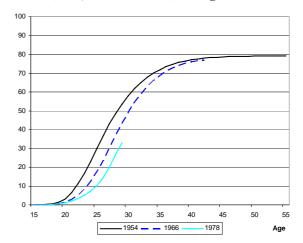
Figures and tables

Figure 1a. Share of Danish women from three birth cohorts (1954, 1966 and 1978) having children



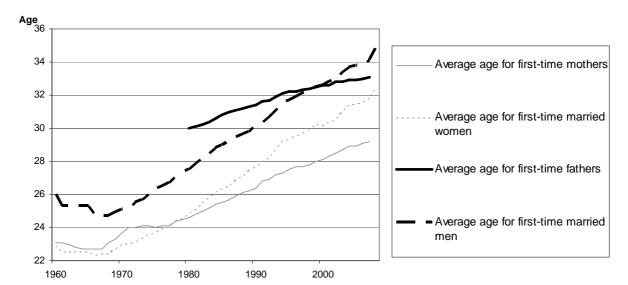
Source: own calculations

Figure 1b. Share of Danish men from three birth cohorts (1954, 1966 and 1978) having children



Source: own calculations

Figure 2. Average age at first marriage and first childbirth 1960-2008



Source: Statistics Denmark

Table 1. Family status by age 30, women and men

	1954 cohort		1966 cohort		1978 cohort	
	Women	Men	Women	Men	Women	Men
Single	7.7	14.9	13.9	23.6	29.8	44.1
Cohabitating	5.1	5.5	10.5	10.0	39.0	38.7
Married	67.9	64.9	62.6	57.0	28.9	16.3
Divorced	16.3	13.5	12.5	9.3	2.3	0.9
Widowed	3.0	1.2	0.5	0.2	0.0	0.0