

Have fertility intentions become harder to realize over the last thirty years?

A prospective study of Norwegian women using three surveys linked with register data

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Over the last three decades, Norwegians have experienced a period of dramatic changes in the family system, as well as fundamental social policy changes such as the establishment and gradual expansion of a system of parental leave entitlements and economic benefits for parents of small children. Fertility intentions are not successfully realized by all who hold them. By comparing the degree to which such intentions are realized across time, we aim at advancing our knowledge about the total impact of family and social policy change on fertility behavior. The question we ask in this paper is: *Do these changes in the opportunity structure of childbearing have serious implications for realization of fertility intentions?*

This is an important question, given the attention to low fertility and the role of policy interventions to counter fertility-reducing effects of the strong social forces that shape the lives of women of reproductive age. If the discrepancy between intention and behaviour has increased, this will suggest that it has become more difficult over time to reach one's reproductive goal, perhaps due to a lower fecundity due to a later age at start of childbearing, the higher rates of divorce and dissolution of cohabitation that prevails over much of the industrialized world, more demands from employers, more flexible labour markets, in combination with women's own career ambitions, or other factors at the societal level. Such knowledge might have important policy implications. If, however, fertility intentions and ideals decline, reaching reproductive goals will actually become easier. Most studies of intentions and subsequent behaviour are based on panel studies, studies which are relatively seldom and where non-response represents a serious challenge to the validity and reliability of results. Using a unique combination of survey data and register-based follow-up which is available in Norway, we can make strong claims about how powerful fertility intentions are on aggregate level as well as an individual level without panel mortality.

Our data are from Norway, which is a particularly interesting case, as the Scandinavian welfare state assumes relatively more responsibility for the family domain than in other countries. In addition the fertility in Norway is rather high and has been relatively stable for the last decades. Compared to most European countries Norway has also had a prosperous economy in the recent years, which has made it easy for younger generations to start living by their own and start family building.

Arguments for Changing Realization Levels

There are many arguments that can be made, suggesting both constancy and for in the degree to which women realize their intentions to have their first or another child. Some of these arguments are these:

Higher rates of union dissolution: Young people are faced with more uncertainty regarding the prospects of their unions than their parents were at the same age and life course stage. A higher risk of dissolution can make it harder to realize even strong intentions to have children.

A stronger individualism in the recent period: An assumption made in popular media, and supported by some sociologists, is that there is a higher level of individualism now than in previous periods. If this is linked to the degree of planning in people's life courses, intentions should become better predictors of behavior.

Social benefits tilted more towards parenthood? The system of parental leave benefits in Norway was expanded over the last decades. This should reduce opportunity costs for childbearing.

Data and method

A major advantage of this project is the unique data which are available in Norway. Each resident living in Norway has his or her own personal ID number, and this number identifies the individual in public registers. The registers cover all demographic events that takes place in Norway, all educational activity and attainment, income and taxation, as well as uptake of various social security benefits (such as unemployment) and more. This allows us to obtain information on the behavior of persons interviewed earlier without re-interviewing the same respondents. In this way, we can easily link survey data on fertility intentions taken at one time point to childbearing histories and other time-varying register data on a variety of life domains that cover the period after the interview and up to now. At the same time we also avoid all problems related to sample attrition, non-response and other problems that plague regular panel surveys.

Our data on fertility intentions come from three surveys. The latest is the New Families Survey, a nationally representative survey taken by Statistics Norway in 2003. The sample consists of men aged 23 to 47 and women aged 20 to 44 who had at least one Norwegian-born parent (N=6,317). The overall response rate was 63.3 %, which is as expected for a postal survey like this. The survey included three questions about fertility intentions. All respondents were asked if they intend to have children in the years to come. Those who answered positively were also asked how many children they intended to have and when they wanted their first/next child (within 1 year; 1-2 years; 3-4 years; 5 years or longer; no such plans). Similar data are also found in the two other surveys, the Norwegian version of the World Fertility Survey taken in 1977 and the Norwegian Family and Fertility Survey taken in 1988.

Our data on subsequent behaviour comes from national registry data. We follow up the survey respondents with information from the registers on their fertility behaviour following the survey dates. This information is very accurate and reliable, as it is reported by administrative systems and not the respondents themselves. For the 2003 survey, we can also follow the respondents' marital histories and changes in other domains such as economic activity and education. Linked together the data provide a very detailed picture of Norwegian women's fertility intentions and their realization of those intentions from late 1970s up to 2008.

We limit our samples to women who had intentions to have a next/first child within five years of the survey, were living in a co-residential union at the time of survey and were younger than 35 years at the time of survey. Our set of independent variables include the duration from survey to censoring or birth event (in months), the woman's age at survey, her intention's timeframe, the duration of her co-residential union, the current legal status of her co-residential union, and her parity at the time of survey.

Preliminary results

From our preliminary analyses, we can conclude that *there is no marked decline in realization of fertility intentions across time*. The parallel Kaplan-Meier plots of Figure 1 attest to this. If anything, an increase in realization levels is found for later periods (n.s.). Thus, so far the answer to our question seems to be “no”.

Another finding is that there is a weakened link between marriage and fertility intentions: The difference in realization between married women and cohabiting women diminishes over time. This is not surprising given the fundamental change in the role of cohabitation in Norwegian families over the period in question.

The selection into the state “intending to have a child soon” was probably different across periods. The effect of intention strength changes sign across periods. For 2003, specific intentions are very strong predictor of realization. From figure 1, it is evident that despite intending to have a child within the next five years, only about half of the women realize their intention within the subsequent six years. There is a rather small difference in the level of realization of fertility intentions across periods, with the most recent period showing the lowest level of realization. This difference might be due to period differences in the strength of intentions, union status and duration etc.

Figure 1. Kaplan-Meier plots of realization of fertility intentions in three different periods.

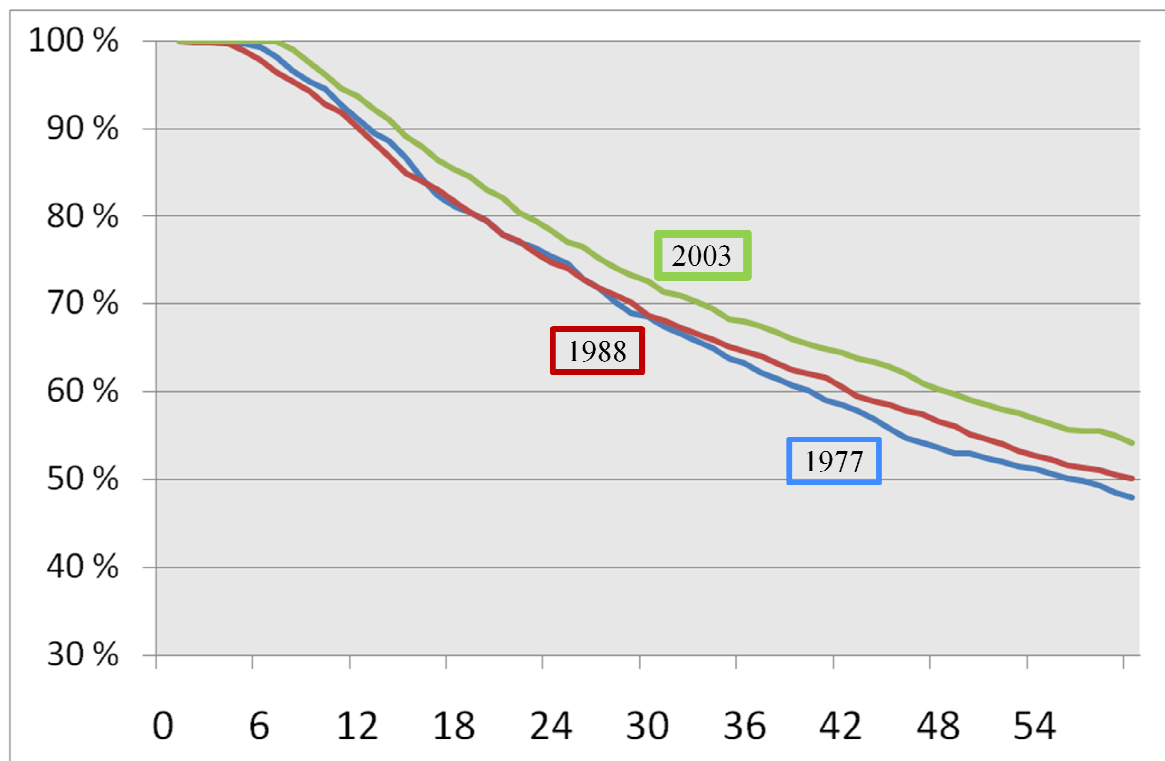


Table 1. Results from discrete-time hazard models women's of realization of their fertility intentions. Models for all three surveys combined and separately for each survey.

		Combined	1977	1988	2003
Intercept		-4,62	-4,87	-3,86	-5,23
Intentions	1-2 years	0,08	-0,39	-0,15	0,84
	3-4 years	-0,53	-0,92	-0,71	0,03
	5 years	-1,03	-1,29	-1,08	-0,88
Union type	Cohabiting	0	0	0	0
	Married	0,35	0,69	0,36	0,2
Time since survey	0-12	0	0	0	0
	13-18	0,71	0,85	0,53	0,91
	19-24	0,56	0,49	0,41	0,98
	25-30	0,7	0,93	0,48	0,92
	31-36	0,4	0,58	0,28	0,6
	37-42	0,3	0,56	0,09	0,55
	43-48	0,32	0,63	0,07	0,6
	49-54	0,07	-0,41	0,25	0,43
	55-60	-0,59	-0,2	-0,79	-0,51
	Survey	1977	0	0	0
1988		0,38	.	.	.
2003		0,15	.	.	.
Age at survey	18-22	-0,01	0,35	-0,21	-0,22
	23-26	-0,01	0,11	0,08	-0,18
	27-28	0	0	0	0
	29-30	-0,12	0,08		-0,23
	31-32	-0,02	0,2		-0,16
	33-34	-0,29	-0,52	-0,32	-0,32
Union duration	Up to 12 months	0,03	0,26	-0,02	0,06
	13-24 months	0,06	0,24	0,12	-0,11
	25-48 months	0			
	49-72 months	-0,07	-0,12	-0,05	0,04
	73-96 months	-0,12	-0,1	-0,07	-0,16
	97+ months	-0,38	-0,43	-0,28	-0,4
Parity at survey	0	0	0	0	0
	1	0,24	0,22	-0,01	0,7
	2+	-0,18	-0,22	-0,34	0,34
log Likelihood		-6583	-2085,13	-2621,46	-1814,57