

## Fertility intentions and actual fertility: A complex relationship

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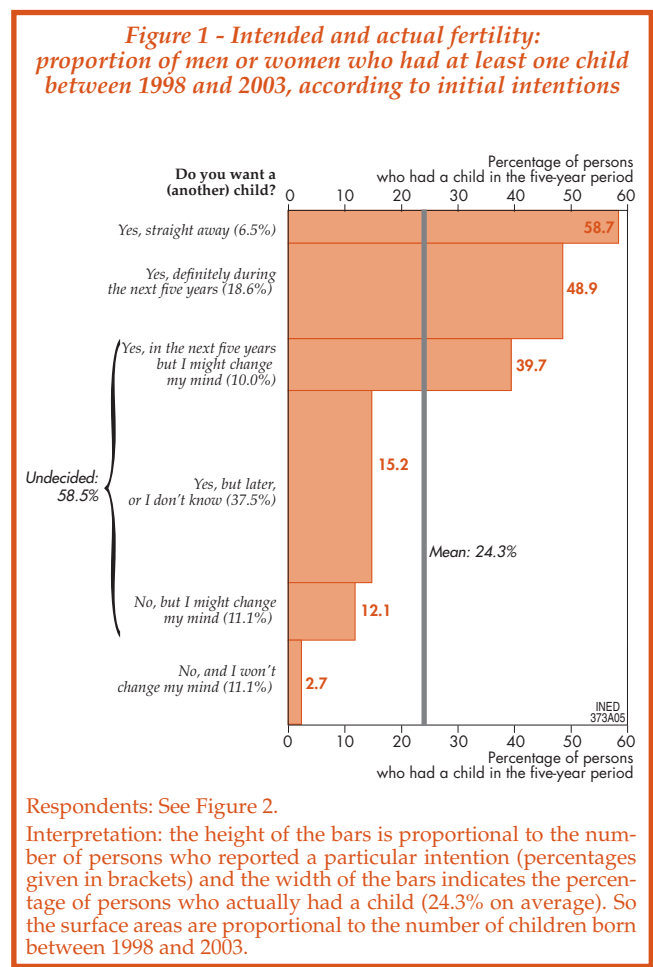
People are regularly asked in sample surveys whether they wish to have children in the future. Can we rely on their answers to predict birth rates in the years to come? Why, in some cases, do their wishes not come true? Because they misjudged the direction their life would take? Because unforeseen problems, such as the death of a partner, divorce or unemployment, obliged them to postpone or even abandon their fertility projects? Laurent Toulemon and Maria Rita Testa present the results of the latest French survey on this topic

We often assume that it is simple to ask people of childbearing age how many children they wish to have and then to measure the gap between aspirations and reality by comparing the desired and the actual number of children. If the gap proves to be negative, then family policy should be adjusted accordingly. Unfortunately, the relationship between intended and actual fertility is not quite so straightforward.

### ◆ Fertility intentions: a hesitant majority ...

The most common approach simply involves comparing fertility intentions at a given point in time with actual fertility, whereas intentions, by definition, take time to be realized. To overcome this difficulty, we should ask men and women about the number of children they would like to have over a given period of time (the next five years for example), then re-interview them at the end of that period to verify whether their childbearing projects have come to fruition. Until now, this longitudinal method –more time-consuming and expensive than the instantaneous approach– has rarely been used in France [1]. INED and INSEE applied the method to the 1998 “Fertility Intentions” survey (see Boxes 1 and 2), to compare fertility intentions reported in 1998 with actual fertility five years later.

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The survey results reveal a second major upstream difficulty: the desire for children, both the number of desired children and the preferred timing of their birth, is a rather vague notion for the persons interviewed. Among the men and women aged 15 to 45 who are asked if they would like to have a child (or another child), 37% reply that they “don’t know” or that they would like to have one, “but later” (not in the next five years). This broad group of undecided people is bordered by two apparently firmer fringes: 29% of people expect to have a child in the next five years, but not immediately, and 28% expect not to have one, although in one-third of all cases they quickly add that they might well “change their mind”. Only 6.5% of respondents plan to have a child in the immediate future. Altogether, six people in ten report no firm intention with respect to the children they might have in the next five years.

### ◆ ... which accounts for 45% of births

In 2003, five years later, how many respondents have actually had a child (regardless of the birth order)? According to the survey results, almost a quarter (24%). Although this may seem a low proportion, it is an average that covers all persons aged between 15 and 45 at the beginning of the period. We will see that it varies according to age, the number of children already born and other variables. Can we really say that the birth of children depends on intentions as stated five years before? For more than one-third of the undecided, the consistency between intended and actual

#### Box 1

##### The survey on fertility intentions

The survey of fertility intentions was conducted by INSEE at the request of INED in September 1998. It covered a sample of 2,624 men and women aged 15 to 45. Persons in the sample who had given their consent were contacted again at the end of 2001 by mail, then by telephone for those who did not return the questionnaire. This procedure was repeated in 2003. In 1998, only 1,699 persons agreed to be interviewed again at a later date and 1,494 of these were contacted again; 1,082 replied in 2001 and 783 in 2003. Attrition was high, mainly due to refusals, or because respondents moved without leaving a follow-up address (242), because they had died or could not be surveyed (12), or because they could not be contacted by phone after failing to return the questionnaire (133). Ongoing research [4] shows that sample attrition is higher among persons not living in a couple and with a low educational level, and among the older persons, above all those who did not want a child. Though the results are less robust due to substantial sample attrition between the 1998 and 2003 surveys, the orders of magnitude obtained are nonetheless reliable.

fertility cannot be measured since they did not state any clear intentions at the outset. The link becomes particularly evident at the extremes: the stronger the intention to have –or not have– children, the greater the likelihood of realizing this intention. This produces a steady gradation in the probability of having a child over the five-year period, ranging from 3% for those who did not want a child and did not intend to change their mind, to 59% for those who wanted one immediately (Figure 1).

This means that 41% of respondents who firmly intended to have a child did not achieve their goal within the next five years. In fact, the highest proportion of persons who actually met their desires is found among those who initially stated that they did not intend to have any (or any more) children, and who represent only one person in six. In most cases, fertility intentions turn out to be a poor predictor of future behaviour. By far the most common response collected in the survey is a “wait-and-see” attitude which leaves the future open: we might have a child, but not for the moment. However, such an attitude does not “sterilize” couples: the 58% who were undecided finally accounted for 45% of the children born between 1998 and 2003.

### ◆ Intentions, a factor among many others

If intentions are such poor predictors of future fertility, it is because numerous other factors come into play. They may be either purely demographic factors –the risk of having a child in the five-year period depends on the age and marital status, duration of union and, of course, on the number of children already born– or social factors, such as employment status, income or level of education, all of which affect the outcome of fertility intentions.

Simple cross-tabulations are not sufficient to disentangle these factors and to measure the contribution of

#### Box 2

##### The questions asked

To record fertility intentions we first asked respondents if they wished to have a child in the future, in addition to any children they already had. The question “Do you want any (more) children, now or later?” was followed, if the answer was yes, by the questions “How many (altogether)?” and “When do you wish to have your next child?”. The answer to this last question could take the form of an interval (earliest and latest desired point in time for the arrival of a child). Intentions were then specified in a number of ways. Respondents were asked if their intention was “firm” or if they might change their mind, whether they were expecting any particular event, such as a change of residence or a new job, whether the question had been discussed with the partner and how the partner’s intentions were perceived, etc.

each of them to the realization of fertility intentions. Logistic regression is required to determine the influence of each factor, “all other things being equal”. For this purpose, we estimate the proportions corresponding to different situations (such as age or number of children), assuming that each factor has a specific force which acts separately from the others to modify the probability of having a child. We then obtain “adjusted” proportions that measure effects for “a comparable situation” (Figure 2). In this way, we show that the probability of having a child over the five-year period varies according to the reported intentions, but also according to age, marital status, duration of union—for persons in union—and number of children.

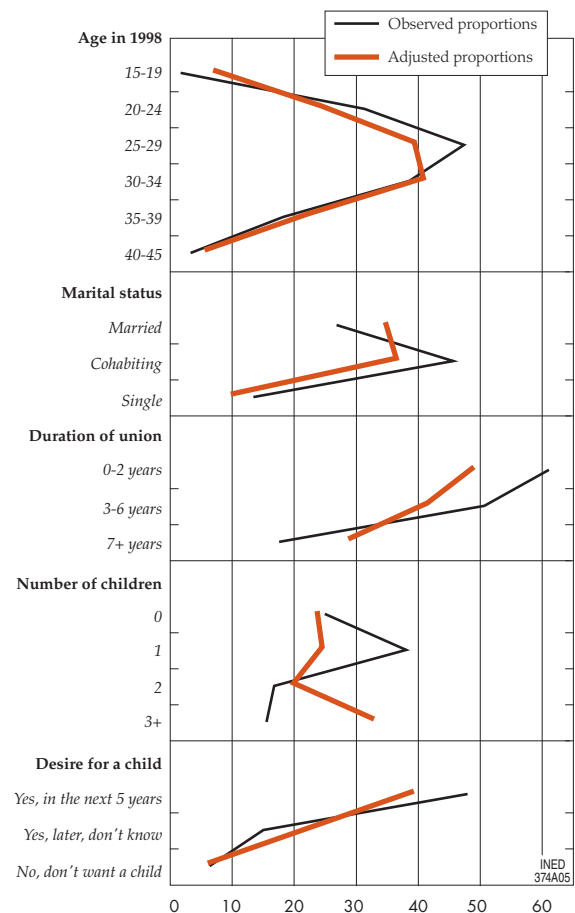
### ◆ No differences between cohabiting and married couples

Almost half (46%) of cohabiting unmarried couples, for example, had a child between 1998 and 2003, compared with 27% of married couples (Figure 2, observed proportions). However, the former are young and have been living in union for only a short time, while the latter are older and have been together for longer periods. Once these differences have been taken into account (along with those relating to the number of children already born and fertility intentions), the probability of having a child is practically the same for cohabiting and married couples (37% and 35% respectively). So the distinction between “married” and “cohabiting” has no specific impact on the likelihood of having a child, whatever the age, number of children, etc., and in particular whatever the stated fertility intention. Whether married or cohabiting, people are equally likely to have a child during the five-year period. On the other hand, and in all logic, being single reduces the probability of having a child to just 10%, whatever the initial intentions were.

Another interesting finding is that for comparable socio-demographic situations and fertility intentions, the probability of actually having a child in the five-year period is just as high for people who already had one child in 1998 as for those who had none. The probability decreases for people with two children, and this is consistent with the fact that in France, in contrast with many other European countries, most couples choose to have two children and not just one. The likelihood of having a child increases again for families who already have at least three children

Last, the relationship between intentions stated in 1998 and subsequent fertility is only slightly modified by the adjustment. Persons who stated in 1998 that they wanted a child in the next five years were often young, with no children or only one child in 1998. These factors weigh in favour of actual fertility, and indeed 48% of people wanting a child had one before 2003. But for a “comparable demographic situation” the percentage having a child would still have been 40%, compared with 23% for those who were undecided and 6% for those who stated in 1998 that they did not want a child.

Figure 2 - Differences in the probability of having a child in the five-year period according to demographic characteristics and intentions stated in 1998



Respondents: Men and women aged 15 to 45 in 1998, having stated that they were still able to have children

Interpretation: The thin lines are observed proportions. For example, persons who already have a child in 1998 are more fertile than those who do not, though for a “comparable demographic situation” the probabilities are identical: for comparable age, marital status, duration of union and intentions, the two groups have the same fertility.

All in all, intentions influence actual fertility among others factors like age, marital status and duration of union.

For a comparable demographic situation, the most highly educated persons more often state that they want a child in the next five years, while persons in the middle-income bracket most often state that they do not. Unemployment causes people to postpone fertility projects beyond five years or to remain undecided, while having a non-working partner is associated with a more frequent desire to have children in the future.

Actual fertility also depends on the socioeconomic situation. Once the influences of demographic factors and of stated intentions have been taken into account, fertility tends to increase with the level of education; it reaches a peak when the two partners are working, but drops sharply when one partner is unemployed (a result which is not revealed in standard analyses). A

more detailed analysis shows that the effect of unemployment on fertility is particularly negative for the first child, as already revealed by a previous INED study [2]. This negative impact mainly affects couples who want to have a child.

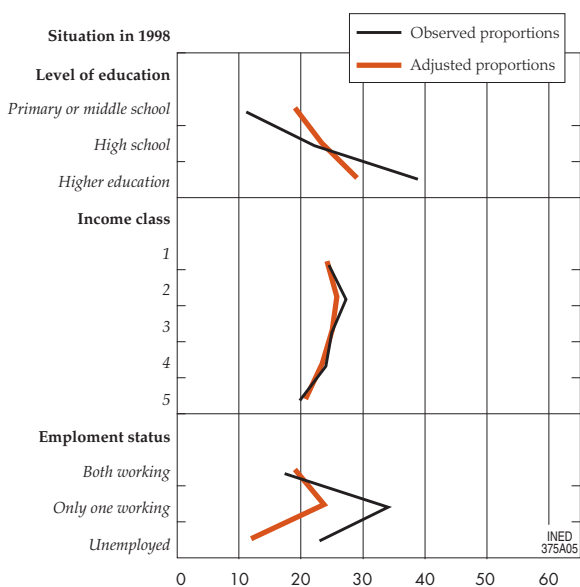
The sensitivity of fertility to income follows a more complex curve. Fertility decreases among the lowest-income persons and, curiously, among those with the highest income (Figure 3), but for the latter this drop is only observed among persons who already had children in 1998. The probability of having a first child increases continuously with income, while increase in family size is less frequent and slower among the wealthiest couples.

### ◆ The highly educated anticipate better

Stated fertility intentions do not have the same predictive value for all social groups. For example, all other things being equal, it is the most highly educated who most often realized the intentions stated in 1998, whatever these may have been (i.e., they anticipated their own behaviour most accurately). Among those who stated in 1998 that they wanted a child in the next five years, 63% of highly educated persons met their desires, compared with 48% overall. Only 3% of the most highly educated who did not want a child actually had one later, compared with 7% overall.

Unemployment is associated with reduced fertility

**Figure 3 - Differences in the probability of having a child over the five-year period according to socio-economic status**



Respondents: See Figure 2.

Interpretation: The thin lines are observed proportions. The adjusted proportions (thick lines) are estimated by logistic regression (see text) using a model that includes the variables already shown in Figure 2 (age, marital status, duration of union, number of children and fertility intentions) and three socioeconomic status variables: level of education, income and employment status.

among those who wanted a child in 1998, while the effect disappears for those who did not want any (more) children. This suggests that unemployment delays or hinders childbearing projects. The most highly educated people are more successful in realizing their fertility intentions. Unlike unemployment, the fact that one of the partners is economically inactive and not seeking a job is not an obstacle to fertility: the initial desire to have a child is more frequently fulfilled. Lastly, it is among the undecided that a high income has the most positive effect on fertility. Overall, it is associated with lower fertility, whatever the fertility intention, suggesting that financial constraints do not have a simple and direct impact on fertility.

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Among the different factors affecting fertility over the period 1998 to 2003, what is the influence of intentions? A limited influence, as shown by the survey results. Only a small minority of respondents who have firmly decided not to have any (more) children remain true to their intentions. For the rest, intentions do little more than inflect the behaviour of groups with very contrasting behaviour patterns.

The relationship between fertility intentions and actual fertility behaviour is therefore quite loose, because it depends on many other factors. So we should perhaps place less emphasis on so-called subjective variables (perceptions, opinions, expectations) in surveys on fertility behaviour. Studies conducted elsewhere on the ideal number of children [3] show a good overall consistency between perceptions and practices. However, this consistency only holds true over an entire lifetime, during which many unexpected events may occur. Some births may be accidental and unplanned, or the result of a new project (a second union for example), while others, though planned, may be impossible to realize for personal or medical reasons, and these two types of unforeseen occurrence may balance each other out. Over a period of just five years, the positive or undecided responses simply prove that the idea of having a child is present in the respondents' minds. In no way do they predict the future.

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