The Effect of Changing Sexual, Marital and Contraceptive Behaviour on Conceptions, Abortions, and Births

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Abstract. A model is proposed to estimate the number of conceptions during a single year using few survey data, official data on births and abortions for the two years following the survey, and some parameters on contraception failure. The model is fitted for 1979, 1989, 1994 to Puglia, a Southern Italian region with a population of 4 millions. Simulations are also produced.

The decrease in births is caused mainly by the decline in wanted births, whereas the decline in abortions is caused by diffusion of the pill, IUD, and condom. The rapid increase in the proportion of never-married women explains the slow decrease in unwanted births and conceptions, compared to the fast decline in wanted ones. This situation is different compared to other Western countries (e.g. France and UK) where the decline in TFR during the 1960s and 1970s was largely caused by the decline in unwanted fertility, thanks to improved modern contraception and sterilisation.


Le déclin des naissances est principalement dû à la diffusion de la pilule, du stérilet et du condom. L’accroissement rapide de la proportion de femmes n’ayant jamais été mariées explique le lent déclin des naissances désirées. Cette situation est différente de celle d’autres pays occidentaux (c’est-à-dire la France et la Grande-Bretagne) où le déclin de la somme des naissances réduites pendant les années 1960 et 1970 était largement causé par le déclin des naissances non désirées, grâce à une amélioration de la contraception moderne et de la stérilisation.
1. Introduction

In Italy, as elsewhere in Europe, the number of abortions has visibly dropped. Many surveys have shown that this has coincided with the use of safe contraceptive methods. It naturally follows that focus is given to the interplay between two aspects, even though certain situations, which may not easily be explained, immediately emerge. In France, for example, the number of abortions remains relatively high, despite the widespread availability of contraceptive methods and the steep increase in the number of sterilised couples in recent years (Blayo, 1995). Other authors have pointed out the link between desired and undesired fertility, abortion and contraception – in France, for example, Toulemon, Leridon (1992) and in Great Britain, Murphy (1993). The situation in France is of particular note in that modern contraceptive methods go hand in hand with a large quota of unwanted births.

The construction of a schema to highlight the interplay among all these variables could be of interest from two points of view. First of all, we could assess what effect changes in contraception techniques and practices have on abortions and unwanted births. Secondly, an attempt could be made to pinpoint whether time trends are intertwined with those of other variables, such as population composition (by age, marital status ...) and other aspects of reproductive behaviour, in particular the sexual behaviour of unmarried women and the decline in wanted fertility. To achieve these goals we wish to propose a model which draws its inspiration from three previous studies. In two of these (Westoff et al., 1987; Murphy, 1993, appendix) the number of wanted and unwanted conceptions for married women is estimated from the number of women by means of coefficients estimated from survey data. In an other study (Dalla Zuanna and La Mendola, 1994), conceptions for a single calendar year in the provinces of Italy are estimated, starting from the outcomes of conceptions in the same and the following years, using only official sources. In this study we propose a combined use of simple data from surveys and official sources to divide registered births into two categories – wanted and unwanted.

We have applied this procedure to Puglia – a Southern Italian region with a population of 4,000,000 – first for the year 1989 and then, somewhat more approximately, for 1979 and 1994. For 1989 data are available from the National Health Institute survey on Knowledge, Attitudes and Practices (KAP) regarding contraception, performed during the first months of the year with a corrected sampling procedure (see paragraph 3). For the year 1979 data from the Southern Italy contraceptive survey may be applied to Puglia, performed on the occasion of the WFS (Rossi et al., 1982). For 1994, we have made an estimate from data on contraception, starting with those collected in early 1996 during the UN ECE survey (United Nations Economic Commission for Europe), performed by the Italian National Statistics Institute and academics from various Italian universities (De Sandre et al., 1997).