reference book for professional health workers and for others interested in understanding statistics in this field.

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CONTRACEPTION AND FERTILITY AMONG AMERICAN WOMEN

In most Western countries the introduction of birth control I and the dissemination of contraceptive knowledge have led to a rapid decline, and in some social groups the virtual disappearance, of the large family. As reproduction increasingly becomes a matter for conscious individual choice, the study of population moves further away from biology and becomes a problem for the social sciences. But although demographers have agreed that the declines in Western birth rates were due to deliberate decisions to adopt some method of family limitation, the subject has often been considered too delicate to investigate, and with the exception of the Indianapolis inquiry and the study of family limitation undertaken on behalf of the British Royal Commission on Population, there have been no large-scale studies of unselected groups which aimed to assess the extent of the practice in modern communities. The study by Freedman, Whelpton and Campbell, based on a national probability sample of 2,713 native white married women, aged 18 to 39, is the first attempt to give figures which are valid for the United States as a whole. A long and detailed questionnaire, relating to reproductive behaviour and to ideas and ideals as to family size was administered to these women, and the book consists of an analysis of the replies.

As was to be expected a number of interesting, and to some degree unexpected, results emerge. In the first place, no fewer than one-third of the couples were classified as having some impairment of fecundity, and 10 per cent were definitely sterile, 9 per cent as a result of operations which had a sterilizing effect,

¹ Freedman, Ronald; Whelpton, Pascal K.; and Campbell, Arthur A.: Family Planning, Sterility and Population Growth. New York, McGraw Hill Company, 1959. pp. xix + 515, \$9.50.

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though this will not always have been the principal reason for the operation. The authors believe, however, that a significant minority of such operations will have been performed for contraceptive purposes, and they are puzzled by the higher incidence of such operations in the lower socio-economic groups. For instance, only 8 per cent of college-educated wives, but as many as 16 per cent of those whose education ended in a grade school had undergone such operations. One cannot help wondering to what extent differences in medical care, both in degree and quality, may have been responsible for this discrepancy. Unfortunately, there are not to my knowledge, any comparable British data, which would show whether similar differences exist under the National Health Service.

The authors estimate that 13 per cent of all pregnancies end in fetal death, and that 25 per cent of the fertile wives will have experienced at least one such death, but unfortunately, they do not discuss socio-economic differentials in the fetal death rate.

The authors continue to discuss the extent to which contraception is used by the women in the sample. They distinguish between those women who used contraception on a motive basis (1,901 couples out of 2,713 had done so at some period in their marriages), and those who used it on an action basis, i.e. women who douched after intercourse, but stated that they did so for hygienic, rather than contraceptive reasons. If the latter group is included the number using contraception rises to 2,207. If attention were restricted to fecund couples, the number of those who have either never attempted to control their fertility, or who have stated their intention not to do so in the future (these are generally couples who have not been married very long) is of the order of only 5 per cent. In other words, among fecund, white American women, birth control is almost universally accepted and used.

However, it also becomes evident that a substantial minority of families do not plan their fertility very effectively. Only 19 per cent of all couples, and 29 per cent of all contracepting couples, were classified as having completely planned families, i.e. pregnancies occurring only at a time when they discontinued contraception. Among contraceptors with four or more

children the proportion of those with at least one unplanned pregnancy was 50 per cent. On the other hand the authors find that voluntary childlessness is now a negligible factor among American married couples.

In view of the large proportion of Roman Catholics in the American population, and the opposition of the Roman Catholic Church to all appliance methods of birth control and to coitus interruptus, the behaviour of Roman Catholic couples is of particular interest. The authors find that there exist significant differences between Catholics and Protestants, both in the extent to which they make use of birth control and in the type of contraception used. But they wryly remark that the devout Catholic is more likely to support his religious views with complete non-use if the pressures of family growth are made less urgent by impaired fecundity! Among fecund Catholic couples married for at least ten years, 50 per cent have used a method of birth control other than rhythm. It is fairly clear that pressure of economic circumstances leads Roman Catholics to deviate from the teaching of their Church, as they experience the financial and other problems of a growing family. But an interesting feature among Catholics is the fact that the proportion of Catholic couples who rely on the approved rhythm method only is considerably higher among those who have received a college education than among those of lower educational status. The authors believe that this is accounted for by their greater sophistication and more intense religious motivation. Incidentally, they find that in mixed marriages the attitude of the wife to fertility control is more important as a determinant of reproductive behaviour than that of the husband.

Of the socio-economic differentials influencing reproductive behaviour the authors rate education as being the most important and occupation of husband as least so. On the whole their findings confirm previous suppositions showing a higher proportion of users and of users of appliance methods among couples with a higher socio-economic status.

The next topic discussed relates to the efficiency of different methods of contraception in preventing unwanted births. Unfortunately, no questions were asked about the acceptability Annotations 295

of different kinds of contraceptive methods: in view of the fact that studies have shown that a significant minority of women object to some of the more efficient methods of contraception, on what might broadly be called aesthetic grounds, questions on that topic might have provided useful information.

This brief résumé of some of the principal findings of this section of the book will make it clear that many important new facts about reproductive behaviour have been discovered. This makes it all the more unfortunate that shortage of money prevented the authors from extending their investigations to older married women, so that secular trends could have been studied over a longer period, and to the coloured population. It is to be hoped that the second deficiency will be remedied in the future.

The remainder of the book is devoted to a discussion of expected and desired family size based on answers to questions about these topics, and to an attempt to project population on the basis of the answers given. The principal result obtained is the very considerable agreement, found among all classes of the population, that a family of between two and four children is the ideal size to have. Differential fertility appears to be becoming less important, partly because of a rise in the fertility of women of higher status, particularly those of higher educational status, and partly because of the disappearance of really large families from the lower status groups. The replies to those questions are used to construct estimates of future fertility rates for white women, and the total population of the United States is projected on the assumption that the present differential between white and non-white women will remain constant.

The authors are, of course, aware of the limitations of this technique. Projected rates may be different from those which will ultimately be experienced, and it is likely that both expectations and future behaviour will change under the impact of economic, social, and political changes. Whilst it is obviously sensible to take into account the expectations and views of women at present of childbearing age when assessing their own future fertility, the demographic history of the last thirty years has shown how rapidly and decisively even these views may

change. In particular, the assumption that differentials between the white and Negro population will remain constant strikes me as somewhat rigid and unrealistic, particularly over longer periods. Moreover, the fact that there is general agreement that the ideal family size is between two and four children per married couple still leaves considerable scope for variation. If the two-child family were to regain its popularity, relatively to three or four-child families, the effect on fertility could be quite considerable.

These remarks should not be taken to imply that the standard of the second part of the book is in any way inferior to the first. A study of expectations and values relating to family size is interesting and valuable in itself, whatever its implications may be on the future of fertility rates. To me personally, the first part is of greater interest than the second, but there is no doubt that the book as a whole is a valuable and interesting addition to demographic knowledge. The authors are to be congratulated on the clarity of their exposition and the absence of jargon, and the publishers on the excellence of their printing and layout.

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