No. 13

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Ideal Family Size

OCCASIONAL PAPERS

OCTOBER 1974 No. 13

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The World Fertility Survey is an international research programme whose purpose is to assess the current state of human fertility throughout the world. This is being done principally through promoting and supporting nationally representative, internationally comparable, and scientifically designed and conducted sample surveys of fertility behaviour in as many countries as possible.

The WFS is being undertaken, with the collaboration of the United Nations, by the International Statistical Institute in cooperation with the International Union for the Scientific Study of Population. Financial support is provided principally by the United Nations Fund for Population Activities and the United States Agency for International Development.

This publication is part of the WFS Publications Programme which includes the WFS Basic Documentation, Occasional Papers and auxiliary publications. For further information on the WFS, write to the Information Office, International Statistical Institute, 428 Prinses Beatrixlaan, Voorburg, The Hague, Netherlands.

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There are very few social science questions, which have been asked in as many different contexts, as that on ideal family size, which has now been posed in some seven hundred surveys around the world. However, there has been much less questioning of what the question itself and the responses to it may mean. Indeed, Parker Mauldin, in a much quoted survey of "Fertility Studies: Knowledge, attitude, and practice", treats as equivalent, questions ranging from the standard text used in the Mysore study quoted above, to an American study which asked "A year after your first child was born how many children did you want to have altogether?", and a Lebanese survey which suggested "Suppose you have a very close friend, in the same circumstances as yourself and she asked you for advice on the convenient number of children for her. What is the number of children you would advise her to have, if she could?". (Mauldin, 1965).

The most cogent criticisms of the concept of ideal family size, although often equally relevant to the developing world, have been made by demographers who have worked almost exclusively in the West and have thought largely in terms of the cultures they know best. A major exception is Philip Hauser who has attacked this concept on the grounds that "this question, in a society characterized by a pre-Newtonian mentality – a society in which the number of children is determined by nature, spirits, or God – may be a meaningless question" (Hauser, 1967). In surveys across Africa it has been shown that probes along the lines of "If you could choose how many children God would send, how many would you choose?" do elicit meaningful numerical responses from the most fatalistic of respondents, all of whom are well aware that abstinence will limit God's gifts. Few African societies are pre-Newtonian in the sense Hauser suggests. John Gay, studying *Mathematics and Logic in Kpelle Language*, has shown that there are some mathematical areas in which the Kpelle are much more gifted than most

Europeans. They do not count their children, but that is because to do so would be to provoke the wrath of the gods, not because they do not know how many they have or want (Gay, 1971). Undoubtedly in many traditional African societies respondents are reluctant to place a precise numerical value upon their existing parity, or their desired number of children, in the belief that this would tempt fate, but this reluctance hardly suggests that the notions of cause and effect are unfamiliar. As Morgan has shown, respondents are interested in questions relating to fertility, and will themselves find ways of giving the required information without offending local taboos, provided that investigators are patient and aware of possible sensitivities (Morgan, 1973). Non-numerical responses do form a relatively high proportion of the responses to the ideal family size questions in the Nigerian Changing African Family Study cited below, reaching 28 per cent in the case of the standard ideal family size question. This is because reluctant respondents were not subjected to repeated probing; the aim being to secure numerical responses only from those to whom such responses came naturally. Non-numerical responses are not randomly distributed; those most likely to give such answers are older women with no surviving children, and polygynous elders whose family sizes would indeed suggest that they practise what they preach in striving to have "as many children as possible". Any doubt that numerical responses are as meaningful in Africa as in the West should be dispelled by Table 4, which shows that Nigerian respondents are just as rational as Americans in adjusting their fertility ideals to various hypothetical economic constraints.

Hauser further argues that, owing to the meaninglessness of ideal family size, "it should not be too surprising therefore that the response to this question is hightly correlated with actual or 'completed' family size; the ideal tends to be what has actually occurred". If there were no relationship between fertility ideals and actual fertility, there would indeed be cause for concern. The fact that some parents rationalize the results of contraceptive failure or infecundity, by claiming to prefer large or small families, does not prevent the majority of parents from having genuine preferences which are reflected in their parities. Obviously the strength of correlation is dependent upon the life-cycle stage of the respondents, but Knodel and Prachuabmoh report that only a fourth of Thai wives stated that their desired family size was equal to their actual family size (Knodel and Prachuabmoh, 1973). Actually, as will be discussed further below, in an African context there is more evidence to suggest that there are group norms for ideal fertility, than that ideals vary with fertility, at least amongst the older women (cf. Table 5). In the Nigerian study only a fifth of those over forty who gave numercial responses to the ideal family size question had in fact had the number of children which they considered to be ideal. Hauser continues "the fact that the 'ideal number' tends to be lower than the 'completed' number may again reflect the respondent's sensitivity to what the interviewer wants rather than something meaningful to the respondent. It is quite possible that many of the responses in KAP surveys are efforts at politeness to meaningless queries or forced responses to questions, to which the respondent really has no answer either before or after the question is put".

In West Africa at least there is little tradition that politeness requires one to divine and provide the response desired by the questioner. Those respondents who were aware of Western family size ideals almost invariably expressed strong disapproval of them. Largely owing to problems of infertility, ideal family size consistently exceeds actual parity amongst women who are beyond reproductive age in West African surveys. In Taiwan, where the culture of politeness is much more pervasive, Freedman and Takeshita (1969) report "undoubtedly it is true that some answers were influenced by politeness and by perceptions of what was expected by the well-regarded young women conducting the interviews. But at the very least this means that most respondents are aware of a 'small family value'; and this awareness is in itself a social fact that can have some influence on behaviour . . . those who express such small or moderate family values appear to be validating them not only by the consistency of other attitudes expressed, but by action as well".

Much more valid are Hauser's criticisms of the failure to measure response error in KAP studies, and of the general disinclination to evaluate the reliability and validity of responses in such studies. Equally important is his suggestion that much more could and should be done to measure the intensity of opinions and attitudes expressed by respondents in fertility surveys. Although in this respect the Nigerian CAF study with some twenty separate questions on family size ideals, perhaps, reached the limit of useful probing.

Ryder and Westoff (1969), after investigating "Relationships among intended, expected, desired and ideal family size: United States, 1965", concluded "in terms of subsequent work, it would be our judgment that the least profitable variable to explore further is the number considered ideal". They argue that the ideal "lacks face validity, is relatively unreliable, and it has small variance." Certainly, those who have to use the 'ideal' question in developing countries can take comfort from the fact that the variance is much greater in such areas than in America or Western Europe*. Much more could and should be done in developing countries in terms of simply asking respondents how many (more) children they want. However, this does not solve the major problems of how to measure whether respondents already have more children than they might have wished, nor of measuring how many children older respondents, no longer fertile, would have wished to have. A measure of desired family size (i.e. existing parity plus additional children desired) poses its own problems. As Norman Ryder has pointed out "this does give us some kind of number for every respondent, but the outcome is a bastard mixture of hard and soft data, with the proportion of each depending on the respondent's reproductive location" (Ryder, 1973). It is also the case that individual respondents respond with greatly varying degrees of realism, some taking known or suspected fertility impairments into account and others ignoring them. In addition, there is the problem of infant mortality which creates children who appear in the respondent's parity but not in her family size (for the importance of this factor, even in one of the most advanced areas of tropical Africa, cf. Table 6). When it comes to distinguishing between intended, expected and desired family size in Africa the researcher is confronted by the basic problem that most African languages do not distinguish between the three concepts. Thus in Yoruba, for example, a

* The standard deviation of mean ideal family size in the Nigerian Survey is 2.49 for men's and 1.93 for women's responses.

single expression, equivalent to "may I have six children" does service whether the respondent hopes, intends or expects to have six children. (In this context it is of interest to note that the Conference of European Statisticians discussing the World Fertility Survey Questionnaire, in English, which for the majority was a second or even third language, failed to appreciate even after explanations that there was a distinction between expected and intended family size – the UN Demographic Dictionary steers clear of such troubled waters). In Africa it might be possible, with examples, to explain the difference between the three concepts but the gains, which could be anticipated from responses to questions relating to newly introduced concepts, would be minimal if not actually negative. Questions on expectations pose an additional difficulty because of the problem of infant mortality. Understandably, non-response to a question asking respondents to estimate future infant mortality reached 80 per cent.

The most blistering of all attacks on the concept of ideal family size was made by Dudley Kirk, who argues that the question is meaningless, lacks empirical validity, is logically inadequate and sociologically naïve (Kirk, 1972). Kirk argues that the concept is not empirically valid as a measure of what people do, and cites in support of this contention Judith Blake's study of "Ideal family size among white Americans: a quarter of a century's evidence" (Blake, 1966). But in cultures and economies where the ideal does contain an element of idealization it would seem to be naïve to expect ideal family size to reflect actual behaviour as accurately as expected family size.* Both Kirk and Blake express disappointment that measures of ideal family size do not apparently react sharply to cataclysms such as wars and depressions. But is it to be expected that ideals should change radically in response to adversity? Expectations should, *a priori*, be more sensitive to short run variations in social climate than ideals. What does emerge from Judith Blake's data is a long run rise in ideal family size, which could have been used to predict the baby boom. Much of the value of Kirk's direct critique of the lack of congruence of ideals and expectations is nullified by the fact that he compares the ideals of 1960 with the expectations of 1967, without any recognition that the climate of opinion in this area had changed very markedly during this period. Equally he claims that expected family size would be even further removed from the ideal if unwanted births were eliminated, but he takes no account of the counterbalancing factor that expectations would approach more closely to ideals if all involuntary sterility could be cured.

Remarkably, in a later paper, Judith Blake argues that "data on ideal family size have proved of unique value" in analysing the recent downward shift in birth expectations in the United States. (Blake, 1974). Her argument is that the sudden change in expectations should not be accepted at face value so long as attitudes concerning the family life-cycle, the one-child family, childlessness, and the large family do not also change. Unlike birth expectations, family size ideals can change throughout the age structure, and the fact that the reduction in ideals has occurred almost proportionately in all age groups does cast doubts upon the validity of the greatly reduced expectations of the youngest cohorts.

* In France the modal ideal family size was found to be three children but the modal ideal for "persons in the same situation as yourself, and having the same income" was only two children (Girard and Zucker, 1968).

There has been very little discussion of the theoretical implications of the concept of ideal family size. Most commentaries on the responses to questions on ideal family size would appear to assume that the sequence is, ideal → desired → intended → expected → actual. As Norman Ryder has put it "the basic idea is that couples pick out a reproductive target and then are more or less successful at hitting it. The target chosen reflects the reproductive norms they have internalized: their capacity to hit that target reflects whatever regulatory norms may inhibit them – as well as their general capacity to solve problems, i.e., their education" (Ryder, 1973). Yet it is equally plausible to argue that a true understanding of causation would lead to a reversal of the sequence and a recognition that parity influences ideals more than ideals have ever influenced parity. In the Melbourne Survey, where respondents were actually asked when they first decided how many children they wanted, it emerged that, even after the birth of the first child, less than half of all couples had decided how many children they wanted (Melbourne Survey, 1971). It is often suggested that the women of developing countries have an irrational tendency, which is not found in the West, to leave the number of their children to fate. Yet at the time of the respective surveys 32 per cent of Melbourne women had not decided how many children they wanted, in contrast to 26 per cent of Yoruba women who did not know how many (more) children they wanted (Melbourne Survey, 1971; CAF Nigeria II, 1973). Western respondents appear to be more rational and decided, because they are not normally asked whether they have come to a *decision* about how many children they want, but only how many children they want, a question to which they feel constrained to give a numerical answer.

Kirk also argues that ideal family size questions are invalid because whilst "norms indeed influence behaviour . . . behaviour also changes norms". Judith Blake makes something of the same point when she argues that the youth of America, who currently idealize small families as a fad, may in fact find that they so much enjoy the freedom brought by smaller or even childless families, that their conflicting ideals, on the evils of childlessness and one child families, may give way to permanent ideal family size norms small enough to secure eventual zero population growth (Blake, 1973). It is interesting, however, to note that Kirk's example of behaviour acting to change norms is Taiwan. He argued that although the modal Taiwanese women said that they regarded four children as the ideal family size in the early 1960's, this simply reflected the fact that they already had that number or more. He predicted that, as women saw others succeeding in having fewer children, the norm for family size would fall further. Unfortunately, subsequent Taiwanese experience would suggest that the four child ideal is indeed the barrier which the family planners will have to overcome if they are to reduce Taiwanese growth rates any further. Taiwanese women have proved themselves very willing to adopt contraception to limit their families to four, but they have evinced virtually no desire to limit their families further.

A quite different form of attack on the concept of ideal family size, as it is conventionally measured, has come from the Michigan Mathematical Psychology Program (MMPP, 1973). This group claim that it is not the concept which is at fault but the way in which it is measured.

They argue that the conventional measurements of ideal family size are defective (1) because they make no systematic attempt to separate the confounding effects of number and sex preference; and (2) because, by asking only for a simple first choice, they take no account of the intensity and general orientation of the respondents' attitudes, which could be measured by the application of unfolding theory. (Unfolding theory is a theory of preferential choice based on the notion that an individual may have an "ideal "level on variable x, like the amount of sugar in his coffee or number of children, and that his preference falls off as x either increases or decreases. This preference function is a single-peaked utility function u(x), and a person's preference ordering reflects u(x) by "folding" the x scale. The advantage claimed for unfolding theory is that it leads to an index of "bias" which reflects not only an individual's first choice but his sensitivity to deviations from his first choice.) The group propose the use of a preference scale which requires the respondent to rank all the sixteen possible family composition choices based on all the combinations of 0–3 boys and 0–3 girls. Even the simplified form requires the respondent to answer a connected sequence of nine questions and the interviewer to comprehend two flow diagrams.

Leaving aside the length or complexity of the questioning necessary for the construction of the preference scale it still poses two major problems of meaning, apart from those inherent in the general concept of ideal family size. Firstly, the scale combines one element over which the respondent can have no control, the sex of each child, with another element, the size of her family, over which she has considerable control (even if only by abortion or abstinence). The usefulness of a joint index of such disparate elements is far from clear. Secondly the scale, in any manageable form is limited to a preference for up to 6 children and up to 3 of each sex. This appears to the American psychologists to be a "sufficient range for most cultures". In fact only just over a third of the Yoruba respondents ideals would fall within these constraints. The preliminary findings on the use of the scale, which have been released so far, would suggest that it does not have a much greater explanatory value than the simple traditional measure of ideal family size. For those whose primary interest is in levels of sex preference the scale would appear to have something to offer, but for those who are principally interested in family size ideals, and ultimately in fertility levels, it offers very small returns for a great deal of effort which could more usefully be concentrated elsewhere. However, there are very valid arguments in favour of supplementing questions on ideal family size (or indeed on desires or expectations) by one supplementary probe to measure bias, perhaps in the form of "Well, if you couldn't have x children would you rather have one more child or one less or quite a different number altogether?"

Concern with measurement errors in fertility research has been limited. Westoff, Potter and Sagi (1961) investigated the reliability of KAP data using test-retest data, from surveys conducted three years apart, of a single sample of American women. They found very high proportions of discrepant responses even in response to factual questions. Thus, discrepancies in the reporting of the ever-use of contraception before the first interview equalled 15 per cent. Responses to questions on the planning status of individual pregnancies showed even

greater inter-interview variance, amounting to 36 per cent for two pregnancies. It is hardly surprising that these findings did not encourage research into the reliability of KAP data in developing areas. Freedman and Takeshita have provided data from Taichung which show that, for two interviews a year apart, the maximum discrepancy on factual items was 19 per cent, which was the level of disagreement on the total number of pregnancies (including miscarriages). They also provide indexes of dissimilarity between response distributions from two comparable samples that were interviewed concurrently. For socio-demographic variables such as age, number of live births, education and use of birth control, they report an index of dissimilarity in the range 2.2–5.7. Remarkably, the ideal number of children falls within this range with an index value of 3.6. Laing (1970) studied interviewer effect and found that, despite the fact that his virtually untrained interviewers were tempted to proselytise for family planning during the interviews, they did not have a very marked effect. However, the interview itself, independent of the individual interviewers, did affect respondents' subsequent attitudes. Stycos and Back (1964) examined the consistency of items within a single interview. They found that women's reports, of whether they wanted more children than their current parity, were generally consistent with their reporting of their ideal family size (the correspondence might have been even closer had they made an allowance for infant mortality). Inconsistency on a number of general items on the desirability of large or small families was much greater. However, it would seem that the very generality of the statements may have caused problems. Although not exactly logical, it is plausible that a women should agree at an hour's interval with both "Taking everything into consideration it is better to have plenty of children", and "Taking everything into consideration it is better to have few children". Perhaps their most interesting finding was that the most inconsistent responses came from women who had large families but idealized small families. As the same group had concluded in the case of Puerto Rico "the expressed preference . . . for a moderately sized family probably conceals a great deal of ambivalence about family size. We may speculate that this represents a transitional stage of attitude development in the society, between an unequivocal preference for large families and an unequivocal preference for small ones. During such a period the individual may be subject to two opposing value systems, both of which he can agree with" (Hill, Stycos and Back, 1959).

Two closely related studies have used projective techniques for measuring the saliency and meaning of ideal family size questions (Stycos, 1964; Simmons, 1971). Both studies involved small, highly specialized, non-random samples: a very poor village in Haiti and a group of 200 females in Bogota, 64 per cent of whom were unmarried school-girls. Pairs of photographs of large and small families were shown to the respondents who were asked, to comment upon differences within the pairs, to choose the family they would prefer from each pair, and to give reasons for their choices. In Haiti the very unfamiliarity of photographs, as such, presented a problem and may provide some explanation for the fact that only a third of respondents mentioned the size differences between the families. In both areas extraneous differences within the pairs in facial expressions, poses, etc., distracted respondents, who were in any case

much more sensitive to differences in the economic status of the families than to differences in their size. For future studies the use of line drawings would appear to be more appropriate.* However, the crucial problem relating to such studies is that of how to interpret their results. Lower status women in Bogota, in contrast to higher status women, are much less likely to differentiate between the paired photographs in terms of size, but, in choosing between them, are much more likely to cite size as a reason. Also, the ideal family size responses of the lower status women were much less consistent with their choices of the projective materials than those of the higher status women. Perhaps the lower status women are both more personally concerned with the issue of family size and less cognitively sensitive to it, but it would seem more probable that the discrepancies result from the fact that the lower class women found the task involved to be both threatening and confusing. The question remains as to whether choosing between photographs and discussing one's ideal family size are the same.

Other efforts to measure the saliency of ideal family size have involved asking respondents whether they had previously thought about the issue and whether they had discussed the matter with their spouses (Elam, 1971; Caldwell, 1968). Experience would suggest that the latter question is more useful and revealing, especially in traditional societies where it is very difficult to define what is meant by "thinking about" a topic. A suitably worded question on the discussion of family size by spouses does provide a workable indicator of the effective saliency of the issue of family size. (An Australian pre-test once revealed that working class couples never "discuss" but only "talk about" common interests).

A number of studies have attempted to measure the meaningfulness of responses to ideal family size questions by measuring the proportion of respondents whose ideal family size was equal to their actual family size (Stycos, 1965; Gille and Pardoko, 1966; Knodel and Prachuabmoh, 1974). The argument is that in a non-contracepting society equivalence between the two measures amounts to little more than a fatalistic acceptance of what has come to pass. However, without some control for age or parity these measures are not very revealing as it is not to be expected that the younger women, who have only just started family building, will have had all the children they would wish for. Table 5 shows the relationship between ideal family size and surviving parity for Yoruba women aged 40 or above. It is only for those who have six surviving children, the most commonly idealized number, that a majority of women have actually had the number of children that they consider to be ideal. It is a reflection of the marked pronatalism of Yoruba society that 70 per cent of these older women have actually got fewer surviving children than they would consider to be ideal. This desire for more children is also related to the high level of infant and child mortality experienced by these women – ideally children now dead would have survived. This is why even amongst women who have seven or more surviving children two-thirds would still idealize a greater number of children. The analysis also shows that the women who are most reluctant to give numerical responses to ideal family size questions are those who have had few live births and those who have had experience of more than one child death.

* A CAF Study in Uganda is using such drawings to measure reactions to family planning posters promoting the small family ideal.

Generally researchers are interested in the extent to which parents in the developing world are having more children than they would wish. Thus it is common practice to tabulate ideal family size by surviving parity in survey reports (although it is debatable whether the more appropriate measure is parity or surviving children) (cf. Table 13). Invariably it has been found that ideal family size rises more or less steeply with increasing actual family size. It is possible to argue either that this trend represents an element of rationalization by parents who have learnt to like that which they were unable to avoid, or that the causal relationship is in the other direction and that those who idealise large families do go on to have many children. Only in the cases where the actual is greater than the ideal, or where, at the close of the reproductive period, the ideal is greater than the actual, is the position relatively clear. In such cases it is possible to say that parents perceive themselves as having an excessive or an insufficient number of children. However, it is still probable that the actual does influence the ideal, inasmuch as parents are reluctant to state the full extent of their dissatisfaction where the ideal is at a considerable distance from the actual. Thus the mother of ten children may be willing to state that she would prefer eight but reluctant to admit that her ideal would have been six. One advantage of offering respondents a number of fixed choice questions relating to family size ("Would you rather have x or x + 2 children?") at levels appropriate to the culture, is that in some cases these can tap feelings of excess fertility more effectively than the open ideal family size question.

In studying the meaning of responses to ideal family size questions, it is obviously instructive to contrast ideal family size with desired family size, where the latter is defined to be actual family size plus the number of additional children desired. As Table 14 shows the correspondence between the two measures is high. Some 90 per cent of Taiwanese wives and 85 per cent of Nigerian respondents are consistent either in wishing for no more children when their ideal is less than or equal to their actual family size, or in wishing for more children when their ideal exceeds their actual family size (Freedman, Hermalin and Chang, 1973, CAF Nigeria II). A study in Thailand found that 86 per cent of rural respondents and 82 per cent of urban respondents were consistent in this respect, although, as many as 25 per cent of those, whose ideal family size exceeded their actual, wished to have no more children (Knodel and Prachuabmoh, 1973). Future studies should endeavour to establish reasons for such discrepancies as are found. For the present, these findings offer a reassuring confirmation that ideal family size is a meaningful concept for the great majority of respondents in developing countries.

In this brief introduction to some of the problems associated with the concept of ideal family size, two of the most difficult have been left till last. These are (1) what does the ideal family size question mean, and (2) why are or should demographers be interested in ideal family size? Obviously when respondents are asked "How many children make an ideal-sized family?" or "What do you think is the best number of children to have?" there are a great many considerations which the individual respondents may or may not be taking into account. The question does not specify for whom the family size is intended to be ideal, under what

economic circumstances, nor at what age. Perhaps most important of all in the developing world is the fact that it has never been specified whether the question is supposed to relate to live births or to surviving children. Robert Lapham is the only demographer to have raised this question and he did so in general terms not in relation to specific data. Yet in Yorubaland it would appear that a major reason why older women have higher family size ideals is their greater experience of the mortality of their children. Women aged sixty or above have on average lost three of their live born children (cf. Table 6).

Ryder suggests that in asking this question about ideals "we are asking the respondent to perform a complex conceptual experiment: 'If everything else in your life were to remain the same, except for your parity, what would you choose for your parity?'" His belief is that respondents faced with this challenge either think of all the other facets of their life they would like to change, like their husbands, or "they reject the game altogether and converge on their actual experience."

Far too few demographers, when asking questions about ideal family size or even when reporting data on the subject, seem to have asked themselves "why ideal family size?" Data on ideal family size can be used for prediction, for measuring satisfaction with existing family size, and for measuring societal norms. Much of the criticism of ideal family size has been in relation to its malfunction as a predictive device. Certainly in developed countries expected family size is, as might be anticipated, a much more delicate predictive tool. In developing and largely non-contracepting societies the position is much less clear. Hatt's prediction, based upon his finding that 47 per cent of his sample had an estimated completed family size in excess of their ideal, that there would be a good market for family planning in Puerto Rico, has been justified with the passing of time (Hatt, 1952). It is in this type of context that ideal family size is a useful predictive tool, not to predict future fertility levels but to predict the potential for changes in fertility were the necessary means both physically and psychologically available. In the developed countries ideal family size is greater than actual family size because of economic constraints (Freedman, Baumert and Bolte, 1959). In the developing countries the ideal is less than the actual because the means of family limitation are not fully available. But in fully traditional pre-developing societies ideals are again greater than actual fertility, simply because the ideal is to have as many children as possible, (whilst observing traditional constraints in relation to ex-nuptial births, religious taboos on intercourse, and so forth), and there are always some women who are physically incapable of achieving their ideal. In developing countries there is only one practicable alternative to ideal family size which can be used to estimate the number of women who have already had more children than they would have wished, and that is a question in the form "Supposing you were about to get married again for the first time. How many children would you want to have?" However, such a question raises a vast number of side issues and is so hypothetical that it provokes very high levels of confusion and non-response. In the Nigerian CAF study respondents were asked what would constitute "too many" children, but the responses to this question measure the limits of tolerance rather than the area of preference.

This is confirmed by the fact that the numbers of children cited are not much less than the numbers which would be considered to constitute absolute "misery" (cf. Table 7). As Stycos and Back (1964) have noted, one problem in measuring ideals is that "there is a wide perceptual band of tolerance around the norm". They also made the interesting finding that the smallest number of children that a woman believed to constitute a "big family" was less closely linked, at least in Jamaica, to the number of children she had than to the ethos of the rural or urban area in which she lived.

One of the least controversial findings of fertility surveys to date is that, whilst personal predictions of fertility are of very little value, in the aggregate they are surprisingly useful. The most notable example of this is the Westoff, Mishler and Kelly study (1957) where it was possible to go back after twenty years and measure whether three hundred couples had stuck to their fertility intentions. One suggested explanation of this phenomenon is that fertility levels within a given society, and even within individual socio-economic groups, are influenced as much by group norms as by loosely held individual preferences. (A remarkable finding in support of this line of reasoning is Laing's discovery that, in the Phillipines, education alone was as effective in predicting acceptance of contraception as an index of "predisposition" made up of items relating to the respondent's expressed interest in family planning, visiting a clinic, etc., – Laing, 1970). In developed and developing countries alike, questions on ideal family size still provide the best means of tapping such norms. Questions on expected family size are too closely related to actual parity for this purpose, and in any case mean very different things to respondents of different ages and parities.

This introduction may appear to have laid undue stress upon the failings of the concept of ideal family size and to have said little of its utility. Yet it is a very useful concept, and findings related to ideal family size around the world do yield meaningful differentials (cf. Tables 1–3). There is no other measure which provides an equally effective index of the potential for change in family size in the developing world. Equally, the fact that the question has been asked in so many surveys around the world has resulted in a body of comparable data of unique coverage within the social sciences. Data are already available on differentials in ideal family size within and between different societies. It would be folly not to grasp this unique opportunity to study differentials over time. However, to ensure that the data gathered in the developing world are of maximum utility, researchers should be aware that a translation of "best" raises fewer extraneous issues than that of "ideal"; that respondents who originally give non-numerical responses to the question ("as many as possible", "what god pleases", etc.) should be probed to obtain a numerical response, such responses being classified separately; and that some measure of the intensity of expressed attitudes should also be obtained. Given such precautions, ideal family size will remain a measure of pre-eminent value in the study of fertility change.

Note:
The Changing African Family Study, CAF Nigeria II, cited here, is one of a number of studies in a cross-national investigation of changes within the family which are, or may ultimately be, related to changes in fertility levels and patterns in Africa. The Changing African Family Project lays especial emphasis upon studying fertility in an African context, and from an African viewpoint. The Project is based at the University of Ibadan, Nigeria; the directors are Professor J. C. Caldwell and Professor F. O. Okediji, field-director Dr. H. Ware. The Project is funded by the Population Council.
The interviews in CAF Nigeria II were of a stratified random sample of the Yoruba population, aged 17 or above, living in Western and Lagos States, Nigeria, in June-July 1973. They covered a very wide range of topics related to the value of children and ideal family size can therefore be studied within this overall context.

Tables

Table 1

Women's ideal family size around the world

	Date of Survey	Mean ideal family size	Percentage whose ideal = 4 +	Percentage whose ideal = 5 +
Developed countries				
Australia[a]	1971	3.2–3.5*	26–33*	2
U.S.A.[b]	1936	3.1	32	8
	1959	3.6	56	12
	1972	2.9	29	9
France[c]	1947	2.9	23	5
	1967	2.7	12	2
Great Britain[d]	1946	2.1	25	15
	1960	2.8	17	†
Japan[d]	1961	2.8	22	8
U.S.S.R.[l] – Moscow	1969	1.9	2	0
– Belorussia	1971	2.9	21	5
Developing Countries				
Thailand – rural[d]	1964	3.8	54	26
Taiwan – urban[d]	1962–3	3.9	72	21
Chile – urban[e]	1959	4.0	58	27
Indonesia – rural[f]	1961–2	4.3**	66**	36**
Korea – rural[f]	1962	4.4	80	45
Philippines – urban[g]	1966	4.5	81	48
Indonesia – Maguwo[h]	1972	4.6	80	45
Indonesia – Mojolama[f]	1969–70	5.0	83	66
Malaysia – West[f]	1966–7	5.1	81	55
Nigeria[i]	1973	5.7	98	82
Kenya – rural[j]	1966–67	6.0	90	61
– Hehe[k]	1967	6.7	†	†
Ghana – rural[j]	1963–64	7.5	(98)††	(82)††
Kenya – Bena[k]	1967	9.4	100	100

Notes:
* depending upon whether the maxima or minima of ranges are used ** men and women
† not available †† from a comparable survey

Sources:
a. Melbourne Survey
b. Blake (1974)
c. Girard and Zucker (1968)
d. Mauldin (1965)
e. Stycos (1968)
f. Seminar paper M. Singarimbum & C. Manning 1973.
g. Laing (1970)
h. Hulls – communication
i. CAF Nigeria II
j. Caldwell (1968)
k. Swartz (1969)
l. Belova (1972)

Table 2

Ideal family size: percentage of respondents desiring or advocating specified number of children, by survey, Africa 1963–73

Survey population	Date of Survey	Sex of respondents	Number of children specified[a]	
			4 or more	5 or more
Ghana Urban Elite	1963	m	89	67
		f	88	56
Ghana Rural Households	1963	households	98	82
Ghana Urban	1965–6	m	92[b]	63[b]
		f	94[b]	68[b]
Ghana Rural	1965–6	f	98	83
Upper Volta Urban	1968	m	88	74
		f	70	65
Chad – Urban	1970	f	–	93
– Rural	1970	f	–	92
Kenya Urban	1966	m	89	68
		f	89	64
Kenya Rural	1966–7	f	90	61
Nigeria – Lagos	1964	f	100	93
Nigeria – Ibadan	1965–6	f	100	80
Nigeria – Oyo	1966	f	99[c]	88
– Ife	1966	f	99[c]	88
– Ibadan suburbs	1966	f	100[c]	66
Nigeria – Lagos	1968	m	91	66
		f	90	70
Nigeria – Lagos	1973	m	96	67
		f	94	68
– Ibadan	1973	m	98	79
		f	100	81
– Ife	1973	m	100	90
		f	100	71
– small towns	1973	m	97	76
		f	99	69
– rural	1973	m	99	82
		f	99	85

Notes:
a. "Not certain", "as many as God wills" etc., responses have been included in the 4+ and 5+ categories
b. Don't know excluded
c. Actually 3+ but the proportion of women favouring 3 was very small

Sources:
Caldwell (1968). CAF Nigeria II

Table 3

Mean ideal family size in Western Nigeria

Place	Date	Mean, ideal family size of women respondents	Survey
Lagos	1964	6.5	Ohadike
	1968	5.5	Morgan
	1973	5.1	CAF Nigeria II
		[No education — 5.3	
		Secondary + — 4.8]	
Ibadan	1965–66	6.1	Okediji
		[Traditional areas	
		No education — 6.8	
		Modern quarters	
		Secondary + — 4.2]	
	1973	5.7	CAF Nigeria II
		[No education — 5.7	
		Secondary + — 5.5]	
Villages of	1968	6.6	Olusanya
the Western	1974	6.2	CAF Nigeria II
State		[No education — 6.6	
		Secondary + — 4.9]	

Sources:
CAF Nigeria II. Morgan, R., "Niveaux de fécondité et évolution de la fécondité" in Caldwell, et. al. *Croissance Démographique et Évolution Socio-Économique en Afrique de l'Ouest*, Paris 1973

Table 4

Ideal family size under certain economic constraints, America 1960, Nigeria 1973

	AMERICA			NIGERIA		
Ideal family size	For high income family	For average American family	For low income family	If you were very rich	The best number	If you were very poor
0	—)	0.1	5.0	0	0	1.1
1	—)		8.8	0	0	1.5
2	4.0	17.6	61.8	0.5	0.5	13.5
3	9.0	29.4	12.0	1.3	1.7	13.6
4	36.6	43.4	9.7	16.1	22.5	31.5
5	15.8	4.2)	2.2	23.2	24.5	15.8
6	24.2	4.3)		31.8	31.5	15.0
7	2.8)	)		2.8	2.1	0.8
8	5.5)	1.0)	0.5	9.8	7.3	2.8
9+	2.1)	)		14.5	9.9	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
n	(2291)	(2377)	(2320)	(2132)	(2141)	(2183)
5+	50.4	9.5	2.7	82.1	75.3	38.8

Sources:
1960 GAF Survey. CAF Nigeria II.

Table 5

Relationships between ideal family size and surviving parity Yoruba women aged 40+

	0–2	3	4	5	6	7+	Total
Number	102	63	78	76	55	39	413
Mean ideal family size	6.1	6.2	6.0	6.4	6.7	6.6	6.3
Percentage whose surviving children were less than their ideal family size	99	100	80	64	31	68	70
Percentage whose surviving children equalled their ideal family size	1	0	18	21	51	5	17
Percentage whose surviving children were greater in number than their ideal family size	0	0	2	15	18	27	13
Mean number of surviving children – all respondents						4.0	
Mean number of surviving children – respondents giving numerical responses to ideal family size question						4.3	
Mean number of surviving children – respondents giving non-numerical responses to ideal family size question						3.4	

Table 6

Mean ideal family size, desired parity, desired family size and parity, Yoruba women, 1973

	Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50–59	60+	All ages
Mean ideal family size	5.0	5.3	5.5	5.8	6.1	6.6	7.8	6.0	6.5	5.7
Mean desired parity[a]	5.0	5.3	5.5	6.4	6.4	6.5	6.7	6.6	6.8	6.0
Mean desired family size[b]	5.0	5.2	5.3	5.9	5.7	5.6	4.6	4.5	3.9	5.2
Mean actual parity	0.2	0.8	1.9	3.4	4.3	5.7	5.8	6.1	6.7	3.3

Notes:
a. desired parity = the number of children already born plus the number of additional children desired
b. desired family size = the number of surviving children plus the number of additional children desired

Source:
CAF Nigeria II

Table 7

Yoruba family size ideals

	Mean number of children	Percentage of total response = 4 or less	Percentage non-numerical response
1. What do you think is the best number of children to have?	6.0	18	28
2. What would you say would be too many (children)?	8.5	1	39
3. How many children do parents have before they begin to feel misery?	8.9	2	39
4. If a man and woman live in a very healthy and safe place next to the best hospital with the best doctors in the country so that they know that all the children will grow up and none will die, how many children is the best number to have?	5.7	16	36
5. In the place where you live, what is is the best number of children to have?	6.0	16	36
6. If you were very rich how many children would you have?	6.4	13	28
7. If you were very poor, how many children would you have?	4.4	27	27
8. Desired family size – women (i.e. surviving children + additional children desired)	5.2	24	26
9. Desired parity – women (i.e. parity + additional children desired)	6.0	16	26

Source:
CAF Nigeria II

Table 8

Number of children ever-born, alive and wanted, by wives aged 20–39 and by wives aged 30–34 and 35–39: percentage distributions and mean values, Taiwan 1962–3, Nigeria 1973

Number of children	Taiwan ever-born	Nigeria ever-born	Taiwan alive	Nigeria alive	Taiwan wanted	Nigeria wanted
			Wives 20–39			
0	6	8	6	9	0	0
1	12	18	14	21	1	0
2	15	23	17	27	7	1
3	17	18	19	19	28	2
4	17	14	18	15	38	18
5 or more	33	19	26	9	26	79
Total percent:	100	100	100	100	100	100
Number:	2443	837	2443	837	2443	837
Mean Value:	3.6	2.9	3.3	2.4	3.9	5.6
			Wives 30–34			
0	2	4	2	4	0	0
1	4	7	4	13	1	0
2	6	20	9	25	7	1
3	15	23	20	23	23	1
4	26	24	27	22	38	13
5 or more	47	22	38	13	31	85
Total percent:	100	100	100	100	100	100
Number:	684	255	684	255	684	255
Mean value:	4.5	3.4	4.1	2.9	4.1	6.0
			Wives 35–39			
0	3	4	3	5	0	0
1	4	5	5	7	1	0
2	6	14	5	17	7	2
3	9	10	13	17	18	2
4	12	19	19	28	41	15
5 or more	66	48	55	26	33	81
Total percent:	100	100	100	100	100	100
Number:	589	173	589	173	589	173
Mean value:	5.5	4.3	4.8	3.4	4.3	5.7

Table 9

Comparison of actual and ideal family size by age, Potharam and Yoruba women

	POTHARAM		YORUBA	
	Actual number of living children	Ideal number of children	Actual number of living children	Ideal number of children
All ages	3.8	3.8		
20–24	1.3	2.8	0.7	5.3
25–29	2.6	3.4	1.6	5.5
30–34	3.7	3.6	2.9	5.8
35–39	4.6	4,1	3.6	6.1
40–44	5.2	4.2	4.8	6.6

Note:
Values underlined are those where ideal is less than actual family size.

Sources:
Institute of Population Studies, Chulalongkorn University, *The Potharam Study 1964–1966*
CAF Nigeria II.

Table 10

Relationships between ideal family size and desired family size at various parity levels, Yoruba women aged 17–39.

	0	1	2	3	4	5+
Ideal family size equals desired family size.	98	87	87	69	63	57
Ideal family size is greater than desired family size	1	7	10	18	24	24
Desired family size is greater than ideal family size	1	5	3	13	12	19
Total	100	100	100	100	100	100

Source:
CAF Nigeria II

Table 11

Proportions of women in selected areas who do not want more children, by parity

Area	*Parity*				*All*
	2	3	4	5 or more	
Potharam	48	71	86	96	72
Ceylon	29	57	69	88	44
Japan	76	95	98	99	72
India	27	42	75	85	37
Pakistan (West)	29	45	66	75	46
Taiwan	24	54	76	88	—
Nigeria (West)	7	6	19	25	15

Sources:
Institute of Population Studies, Chulalongkorn University, *The Potharam Study, 1964–1966*. CAF Nigeria II.

Table 12

Mean ideal family size by parity and education. Yoruba Women

Parity	*Illiterate*	*Literate*	*All*
0–4	6.1	5.2	5.5
5	6.3	5.5	6.0
6	6.8	5.6	6.3
7+	7.3	5.8	6.8

Parity	*Illiterate*	*Self-taught*	*Primary Education*	*Secondary Education*	*Tertiary Education*	*All*
0–4	6.1	6.0	5.6	4.9	4.7	5.5

Note:
Values underlined where actual parity exceeds the ideal

Source:
CAF Nigeria II

Table 13

Mean ideal family size by surviving children, West Nigeria, West Malaysia and India

Number of surviving children	*Ideal family size – women*	
	West Nigeria	West Malaysia
0–2	5.3	4.0
3–5	6.0	5.3
6+	6.8	6.5
Total	5.7	5.1
Number of surviving children	*Ideal family size – men*	
	West Nigeria	Urban India
0	5.4	2.9
1	5.5	2.9
2	5.8	3.1
3	6.2	3.3
4–5	6.3	3.6
6+	8.6	3.9
Total	6.1	3.2

Sources:
CAF Nigeria II.
National Family Planning Board, Malaysia, *Report on West Malaysian Family Survey 1966–1967.*
S. Lahiri, "Preference for sons and ideal family in Urban India", *Indian Journal of Social Work*, 34, pp. 323–336, 1974 (using data from the National Sample Survey of 16,000 men)

Table 14

Measures of consistency between ideal and desired family size, Taiwan and Nigeria

	Taiwan	*Nigeria*
Consistent	90.3	84.6
		(72.9)
Wants no more and actual equal to or greater than ideal	49.6	11.9
Wants more and actual less than ideal	40.7	72.7
		(61.0)
Inconsistent	9.7	15.4
		(27.1)
Wants no more and actual less than ideal	4.7	7.5
Wants more and actual equal to or greater than ideal	5.0	7.9
		(19.6)

Note:
The figures in brackets relate to the exact equivalence of ideal and desired family size and are only available for Nigeria.

Sources:
R. Freedman, A. Hermalin, and M. C. Chang "Do statements about desired family size predict fertility? The case of Taiwan, 1967–1970", *Taiwan Population Studies*, Working Paper, No. 27.
CAF Nigeria II.

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