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Fertility and Related Surveys

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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.

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The Nature and Content of Fertility Surveys Conducted Throughout the World Since 1960

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I. Introduction

The World Fertility Survey is a major program of research involving nationwide sample surveys to be carried out in 50 to 60 countries. This program is being undertaken by the International Statistical Institute (ISI), with the collaboration of the United Nations, in cooperation with the International Union for the Scientific Study of Population, in observation of the World Population Year 1974. In its initial phases the program has devoted considerable attention to the stubborn methodological problems which pervade cross-national research, in order that sensitive, comparable demographic indicators can be gathered in a variety of cultural and developmental contexts. Thus, the World Fertility Survey will generate the descriptive data needed by planners and policymakers, and also should provide social scientists with considerable leverage for unraveling the complex causal network of human fertility.

Sample survey design involves important decisions which must be made wisely to assure that research goals are met. The specific purpose of a survey may imply a basic research strategy, and thus somewhat narrow the range of choices. Nevertheless, decisions must be made which closely determine the efficiency of the investigation and the validity of the data it gathers. For example, it must be decided whether to interview all women in a specified age group or only evermarried women. Assuming that financial and personnel resources are limited, it may be necessary to strike a balance between sampling error and nonsampling error, since efforts to solve the one problem may divert resources away from control of the other. Nonsampling error can be combatted by using a relatively expensive multi-round survey method or by more careful training, interviewing, and supervision; while minimizing sampling error calls for scarce resources to be devoted to increased sample size, careful stratification, and minimal clustering. The design of fertility surveys involves a complicated network of tradeoffs which must be weighed by the ISI as it attempts to formulate recommendations for a common research strategy for nations participating in the World Fertility Survey.

The World Fertility Survey Inventory

In order to bring past experience to bear on these questions, the International Statistical Programs Center (ISPC) of the United States Bureau of the Census was asked to compile an inventory of fertility and related surveys conducted throughout the world since 1960. For

each survey the inventory seeks to gather available information on research design and other characteristics. Coded in machine-readable format, data from this inventory can be quickly focused to help evaluate alternative research strategies.

The inventory is also intended to serve as a useful bibliographic tool. Since the design characteristics of each survey are accessible from the inventory, it is possible to evaluate major components of comparability for assembling survey data for cross-national fertility research. Such secondary analysis of fertility surveys should become increasingly possible thanks to a program by the Roper Public Opinion Research Center to archive a large number of KAP (birth control Knowledge, Attitudes, and Practice) surveys. Since the inventory is an ongoing project which attempts to cover present and future surveys, it can be consulted to remain current with the state of the art and plan future comparative and trend studies.

A very large number of fertility and related surveys have been conducted since the advent of such studies. Small-scale KAP surveys carried out in communities and neighborhoods number in the hundreds in India alone. However, this inventory covers only relatively large-scale fertility and related sample surveys conducted since 1960. Nationwide, regional, metropolitan, and selected urban/rural surveys are included, while studies of a single community, of a particular population group, or of local hospitals or clinics are excluded. However, a few studies of urban slums are included. To qualify for inclusion in this inventory a survey must have gathered information relevant to modern demographic research, with questions ranging beyond "surviving children". All but a few inquired about births in a recent period, with the exceptions asking about children ever born and surviving, or birth intervals. Purely attitudinal public opinion surveys with no current fertility measurement were excluded.

The criteria for including surveys in the inventory are flexible, due to the diverse functions the inventory must serve. On the one hand, the inventory should be generally representative of large-scale fertility and related surveys; but on the other hand, it should contain information on surveys of any scale which are methodologically innovative, attacking basic substantive and conceptual problems with techniques which might be useful to the many lesser developed countries (LDC's) involved in the World Fertility Survey. However, these exceptions are very few in number. The selective nature of the inventory should be kept in mind, in that the tabulations to follow deal with relatively large-scale fertility and related surveys conducted since 1960, and thus do not represent all such inquiries.

Detailed information was sought for all surveys in the inventory. Each was classified by survey type as follows. Fertility surveys are those which focus analytically on the measurement of female fertility. KAP surveys add to this the study of birth control knowledge, attitudes, and practice. Demographic surveys generally enumerate all persons in the sample population regardless of age or sex, thus emphasizing population dynamics, although fertility data can usually be derived, and special fertility or KAP schedules may be administered to eligible women. Multipurpose surveys are those designed to study other relatively distinct subjects along with the fertility inquiry, such as household expenditures or consumption patterns. Information also was sought on the universe of each survey, with details on geo-

graphic and population coverage; the survey method, coded as single-round retrospective, multiround, or dual system; sampling method and sample size; and content of the questionnaire. Furthermore, a bibliography of published materials was collected for each survey.

The work of compiling this inventory was truly a cooperative international effort. After gathering a skeletal initial inventory using bibliographies and professional journals, help was sought from leading national and international organizations such as the United Nations, the Centro Latinoamericano de Demografía (CELADE), the Economic Commission for Asia and the Far East (ECAFE), and the Economic Commission for Africa (ECA); the Population Council, New York; and the Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM) and Institut National de la Statistique et des Etudes Economiques (INSEE), Paris. After information from these sources was recorded, the inventory sheet for each fertility survey was sent to the organization which had conducted the study for completion of missing items and verification of information already gathered. The response rate was in the neighborhood of 90 percent, extremely high for a mailed form, and a gratifying indication of the international cooperation which will be vital to the successful implementation of the World Fertility Survey.

Although the information on each survey in the inventory was compiled as carefully as possible, complete accuracy was undoubtedly not achieved. For example, it has been necessary to translate perhaps a dozen languages, and the meaning of highly technical terms was sometimes difficult to discern. Information from respondents or published sources was often very simple where greater complexity of detail would have been desired, as in the case of descriptions of sampling method. Since the inventory is an ongoing project, ISPC actively solicits the comment of all interested parties in regard to additional data, more accurate information, or new surveys suggested for the inventory.

The following preliminary analysis of the inventory is oriented toward surveys from LDC's, with the data from the developed nations used primarily for illustrative purposes. It is in the LDC's that survey design is evolving rapidly to meet extremely difficult conditions for conducting fertility research, and it is there that important decisions must soon be made with little guidance from past experience. The inventory can focus on various questions encountered in planning and designing fertility surveys, although the complexity of the analysis is limited by the inventory's small sample size of 222 surveys. The tables presented in this paper are illustrative of the cross-tabulations which it is possible to make using the inventory's data file.

Three series of tables will be presented. First, limiting the analysis to surveys from LDC's, the research design characteristics of the studies, such as survey type, survey method, sample size, and questionnaire complexity will be cross-classified against each other to illustrate some combinations of attributes which comprise basic research strategies. Then these same design characteristics will be cross-tabulated by region, including surveys from the developed countries, to investigate variation in the techniques employed in different parts of the world to conduct fertility surveys in differing socio-cultural contexts. And finally, again restricting

the analysis to surveys from the LDC's, the data will be broken down itno 5-year time periods, making it possible to discern trends in the design of fertility surveys.
It should be noted that in all tables, cases with missing information were dropped from the analysis, with the implicit assumption that such cases are distributed the same as those which are coded and analyzed. Thus, the usual interpretive caution should be observed where the number of surveys recorded in a table is considerably less than the total being analyzed: 200 in Sections II and IV, which deal only with surveys from LDC's; and 222 in Section III, which analyzes surveys from all countries represented in the inventory.

II. Survey Design in the LDC'S

This section presents information pertinent to the design of fertility and related surveys. The presentation is intended to illustrate some of the combinations of design characteristics commonly found in fertility research. The analysis is limited to the 200 surveys in the inventory which are from LDC's, so that relationships can be examined in developmental context. The tables are presented in Appendix I.

Survey Type and Sample Size

The fertility and related surveys in the World Fertility Survey Inventory are coded by survey types as previously discussed (p. 4). It can be seen in the numerical distribution in Table 1 that the surveys are evenly distributed between fertility and KAP inquiries, on the one hand, and demographic and demographic/fertility studies on the other. The demographic surveys tend to have a much larger sample size, usually being intended to serve as a basis for estimates of population dynamics (fertility, mortality, and migration), and thus striving to minimize sampling bias.
The fertility and KAP surveys usually have more analytical goals than the descriptive demographic surveys, and subsequently have longer, more complex questionnaires and much smaller sample sizes. These intensive inquiries tend to utilize a small cadre of well-qualified interviewers and train and supervise them carefully. With limited resources, large sample size and lower sampling error is usually "traded off" for better interviewing and lower non-sampling error.

Survey Method and Sample Size

Basic survey method is classified in the inventory as single-round retrospective, which inquires into current and usually past fertility; multi-round, in which the same sample is interviewed more than once; and dual system, which combines vital registration schemes with periodic demographic surveys. About two-thirds of the surveys in Table 2 use the administratively simpler single-round retrospective method, with the more complex and expensive multi-round and dual system studies being much less common. Turning to the distributions within the table, note that multi-round surveys have only a slight tendency towards larger sample size, while dual systems almost exclusively involve samples of over 10,000 eligible women.

Survey Type and Survey Method

There is a strong relationship between survey type and survey method. In Table 3 it is seen that over 80 percent of all fertility and KAP surveys utilize the single-round retrospective method. Demographic surveys also employed this method in about half of the cases, but a relatively large proportion used multi-round or dual system methods, since these approaches are designed to provide the greater enumeration accuracy required in studies of population levels and trends.

Survey Type and Sponsorship

Table 4 tabulates survey types by sponsorship, that is, the organization(s) which had a significant role in the actual design and/or implementation of the survey. Cases were codes as involving an international or foreign organization only where one of the principal investigators was from that organization, or where it was otherwise clear that such an organization played a principal role beyond that of merely financing the study. Significant participation of international or foreign organizations occurred in 85 of the fertility and related surveys coded, or 43 percent. Of those carried out by domestic organizations without such outside participation, more than two-thirds were implemented by government organizations and only about a third by university and other research institutes. Within Table 4 it is interesting to note the extent to which international participation is associated with KAP studies, and foreign participation with demographic surveys. The former instance reflects the extensive activities of CELADE, which has been involved in the implementation of numerous KAP surveys in Latin America. And the association of foreign participation with demographic surveys is heavily weighted by the vigorous efforts of French organizations such as INSEE and ORSTOM, particularly in West Africa.

Geographic Coverage and Survey Method

Information on area coverage and sampling methodology is presented in Table 5. Over one-half the surveys are national in scope, and about one-fifth are of selected urban and/or rural areas. Within the table it is evident that multi-stage sampling is far more common than single-stage, although it is not quite so prevalent in the case of capital cities, which present a relatively small and homogeneous universe. The nationwide fertility surveys using single-stage sampling usually carry out the sampling operation within the relatively small strata created during a complex process of stratification.

Sampling Method and Sampling Unit

The relationship between sampling method and sampling unit is an interesting one. Sampling unit here refers to the unit selected at the final stage. Since virtually all fertility and related surveys in LDC's involve area sampling at some stage of the sampling operation, it follows that in single-stage sampling the final unit of selection will be areal. In multi-stage sampling the final unit can be area, household, or individual, but it is very likely that in an earlier

sampling stage the unit was areal. For example, most of the surveys in Table 6 where the sampling unit is the individual involve a 2- or 3-stage sampling method in which administrative and/or census enumeration districts comprise the sampling units at earlier stages of the sampling operation.

Questionnaire Content and Sample Size

Basic aspects of questionnaire content are presented in Table 7 for surveys with the necessary information available. It is evident that most fertility and related surveys of all sizes gathered information on pertinent social background characteristics, although in general the surveys with larger sample size were somewhat less likely to collect these data. Least commonly asked were questions regarding ethnic group or tribal affiliation and religion or religiosity, sometimes because the questionnaire was a simple demographic one, but often because it was not a meaningful question in that particular context.

Fertility items are coded as being present if the information can be either directly obtained from the questionnaire or derived from other questions. Thus any survey with a full pregnancy history generally contains all the other items, allowing the calculation of virtually any fertility indicator. Those containing questions on births in the last 12 months, children ever born, and surviving children can support Brass methods of mortality estimation and fertility adjustment. The other fertility items present in Table 7 are in most cases derived from pregnancy or birth histories, and are useful for enhancing the accuracy of fertility measures.

The same inverse relationship between questionnaire length and sample size previously inferred from Table 1 is confirmed in Table 7. The percentage of questionnaires containing pregnancy or birth histories diminishes rapidly as sample size increases, and this is true also of the items which are components of these histories. In contrast to this, items such as children ever born and surviving children exhibit a relatively constant strong presence in all sample size categories. If these items were counted only where directly obtained, and not where derived from birth histories, it is probable that their association with larger sample size would be considerable.

About half of the surveys inquired about contraceptive use and attitudes toward additional children and/or ideal family size. As would be expected, Table 7 demonstrates that these items are most often collected from samples of less than 4,000 respondents, since they are generally contained in KAP and other relatively elaborate questionnaires.

III. Regional Variation in Survey Design

There are significant and interesting variations in fertility research design in the different regions of the world. The analysis in this section will present a series of tables depicting these variations in selected aspects of survey design, and will include data on studies carried out in the developed nations for purposes of comparison. The regional categories used are: Africa, Asia, Latin America, and Developed nations. A listing of the countries by region is presented in Appendix II.

Survey Type

Survey type is cross-classified by region in Table 8. In Africa, the predominant type is the demographic survey, which is often utilized to estimate vital rates in the absence of well developed, reliable birth and death registration systems in that region. The declining percentage of demographic surveys in the other regions serves as a rough indicator of the degree of development of their vital rates registration systems. In Asia the distribution of survey types is relatively even, while in Latin America the KAP is prevalent, reflecting the numerous surveys involving CELADE. In the Developed nations there are no demographic surveys whatsoever, with the great majority of cases being fertility surveys.

Survey Method

Survey method is presented in Table 9 and the primary difference is between Africa and Asia on the one hand, and Latin America and the Developed nations on the other. In the former regions, multi-round surveys and dual systems are much more common than is the case in the latter regions. The more complicated survey methods constitute an attempt to minimize both sampling and nonsampling error in these regions, but are particularly designed to combat problems of faulty recall which are common in single-round retrospective surveys. Evidently this problem is not seen as being so acute in Latin America or the Developed nations.

Geographic Coverage

Geographic coverage is delineated in Table 10. Most commonly the surveys involve a nationwide universe, with this type comprising a great majority in the Developed nations and about one-half in Africa and Asia. The second most common type of coverage involves samples from selected urban and/or rural areas except in the case of Latin America, where CELADE's comparative urban fertility surveys generated many studies of capital cities.

Female Eligibility

Another aspect of the sampling universe, one which is particularly important because it has some influence on comparability, relates to eligibility criteria for women. Table 11 presents information on whether the universe included all women within a specified age group, or only those who had been or were currently married. Regional variation in the pattern of eligibility is extreme. In Asia and Europe, most studies draw analytical samples and interview only married or ever-married women. In Latin America, the pattern is reversed with all women in a specified age group being studied. This may be due to the common presence of consensual unions in Latin America, but also derives from the prevalence of KAP surveys, in which the attitudes of single women are also sought. In Africa the pattern of eligibility is mixed, but almost two-thirds of all studies utilize criteria of age rather than marital status. This diversity of criteria poses problems for comparative international research. It is clear that the concept of marriage is almost meaningless in some cultural contexts, and that in many areas of the world studying marital fertility would miss a large proportion of births.

But it is equally clear that in other regions such as the Developed nations or most parts of Asia, little precision in measures of fertility would be gained by studying unmarried women. Thus, the diversity of eligibility criteria relates to substantive environmental differences, and cannot be remedied without reducing the efficiency or conceptual quality of the research design. However, it is not difficult to make adjustments for such differences in a comparative data analysis, and this appears to be the most promising solution to the problem.

Questionnaire Content

Selected aspects of questionnaire content are tabulated by region in Table 12. Less than one-third of the African surveys gathered birth histories, and even fewer contain information on contraceptive practice or attitudes regarding family size or additional children. The presence of all these items increases as one reads across Table 12, making it evident that, overall, questionnaire detail and comprehensiveness increases markedly from Africa through Asia and Latin America to the Developed nations.

IV. Trends in the Design of Fertility and Related Surveys

It is useful to examine survey design characteristics across different time periods. Fertility survey methodology is constantly evolving as new techniques become available or research emphases change. The following series of tables will cross-classify selected design characteristics by year, restricting the analysis to surveys from LDC's. The year of implementation refers to the time when field work was carried out. Where this period encompasses more than one year, the initial year is coded. In the case of repeated single-round retrospective surveys by government census organizations – for example, the Indian National Sample Survey, of which more than 25 rounds have been conducted – only the most recent one for which information is available is included in the inventory, and it is coded by that year. A note of caution is warranted here in regard to the scope of the inventory, which was previously delineated (p. 4). These limitations mean that when trends are discerned in the following analysis, these are trends in large-scale surveys which fit the criteria of the inventory.

Region

The fertility and related surveys are tabulated by region and time periods in Table 13. Almost half of the surveys conducted from 1960 through 1964 were African, reflecting the large amount of sample census activity in the new nations of Africa. From 1965 to 1969 the regional distribution was much more even, but since 1970 it has shifted back to Africa. This cyclical preeminence will be seen to have ramifications in Tables 14–16 since African surveys have a distinct type of research design.

Survey Type

For example, note the fluctuation of the demographic type of survey evident in Table 14. It is the most common type except during the 1965–69 interval, which was a time of KAP

surveys. To some extent this reflects the fact that the 1960–64 and 1970-present periods encompass most of the population census activity, and thus contain numerous sample censuses and post-enumeration surveys. But it is also likely that the cyclical trend in regional configuration noted in the previous section has a strong influence on trends in survey type.

Questionnaire Content

Table 15 presents some interesting trends in questionnaire content, but it should be cautioned that these data are rather tenuous due to a considerable problem of missing data. Note that the percentage of surveys which gathered information on attitudes toward additional children or ideal family size nearly doubled from 1960–64 to 1965–69, but then fell back below the original level after 1970. The pattern is somewhat similar in regard to questions on contraceptive practice, but this does not diminish as much in the most recent time period.

Note that the proportion of questionnaires containing birth histories does not fall off after 1970 the way the attitudinal items did. The distribution previously presented in Table 14 makes it seem likely that if missing data could be gathered for the latest time period in Table 15, the percentage of questionnaires containing birth histories would not be quite as high as 59.0. Nevertheless, it appears that despite the ascendancy of demographic surveys and the decline in the use of attitudinal and other complex questionnaire items, detailed pregnancy or birth histories continue to be gathered almost twice as often as in the earliest period.

Geographic Coverage

A gratifying trend in survey design, one of the few which maintains the same direction across all three time periods, is the increasing prevalence of nationwide surveys. Table 16 indicates that particularly since 1970, when the percentage jumped from below 40 to almost 60, fertility and related surveys have sampled from a nationwide rather than a smaller universe. It is planned that all of the World Fertility Survey inquiries will be national in scope.

V. Conclusion

Going slightly beyond the data, the inventory can be summarized in terms of typologies of survey design. These are ideal rather than empirical types, but they attempt to distill the information presented in previous tables into an accurate yet simple presentation.

Fertility surveys usually involve a single-round retrospective survey method. They tend to draw relatively small samples and interview women only. The questionnaire is likely to contain a pregnancy or birth history, but does not inquire in depth about attitudes or contraceptive practice.

KAP surveys also favor the single-round retrospective method. They involve small samples, usually of women, but sometimes including husbands. The questionnaire is long and complicated, collecting pregnancy or birth histories, as well as information on birth control knowledge, attitudes, and practice.

Demographic surveys are distinctly different from the other two types. They are much more likely to involve more complex survey methods such as multiple rounds or dual systems, and gather information on males and females of all ages. Sample size is large, usually exceeding 25,000 persons. The questionnaire is very simple, although sometimes a more intensive fertility or KAP schedule is administered to eligible women.

In Africa the predominant type of survey is the demographic. In Asia the distribution of types is relatively balanced, although demographic surveys again are most common. In Latin America the KAP survey is predominant, with demographic surveys becoming the exception rather than the rule. In the Developed nations the fertility survey is by far the most common type, although the questionnaire is often so exhaustive that the distinction between these and KAP surveys becomes rather arbitrary.

The evolution of survey types since 1960 appears to be cyclical. Among the fertility and related surveys from LDC's included in the inventory, between 1960 and 1964 demographic surveys were most common, while from 1965 through 1970 KAP surveys predominated and sample size fell accordingly. The period since 1970 has seen the return to prominence of the demographic survey, although many KAP surveys also have been implemented. The proportion of surveys which are nationwide in scope has been growing consistently, and this trend should continue as the national fertility inquiries which comprise the World Fertility Survey are implemented in the future.

APPENDIX I

Statistical Tables

Table 1

Fertility and related surveys in LDC's by sample size and survey type: percent distribution

Sample size[1]	Survey Type				
	Fertility	KAP	Demo-graphic	Demographic/ Fertility	Multi-purpose
Under 4,000	50.0	77.6	16.4	25.0	23.0
4,000–9,999	50.0	22.4	26.9	25.0	38.5
Over 9,999	0.0	0.0	56.7	50.0	38.5
Total	100.0	100.0	100.0	100.0	100.0
Number of surveys[2]	16	67	67	16	13

Table 2

Fertility and related surveys in LDC's by sample size and survey method: percent distribution

Sample Size[1]	Survey Method		
	Single-round Retrospective	Multi-round	Dual System
Under 4,000	48,4	40.4	0.0
4,000–9,999	28.3	31.0	15.4
Over 9,999	23.3	28.6	84.6
Total	100.0	100.0	100.0
Number of Surveys[3]	120	42	13

[1] Number of women or estimated number of eligible women.
[2] Excluding those with sample size or survey type not reported.
[3] Excluding those with survey method or sample size not reported.

Table 3

Fertility and related surveys in LDC's by survey method and survey type: percent distribution

Survey Method	Survey Type				
	Fertility	KAP	Demo-graphic	Demographic/ Fertility	Multi-Purpose
Single-round Retrospective	83.3	89.1	50.0	56.2	62.5
Multi-round	16.7	10.9	34.2	31.3	37.5
Dual System	0.0	0.0	15.8	12.5	0.0
Total	100.0	100.0	100.0	100.0	100.0
Number of Surveys[1]	18	64	76	16	16

Table 4

Fertility and related surveys in LDC's by survey type and sponsoring organization: percent distribution

Survey Type	Sponsoring Organization(s)			
	International Participation	Foreign Participation	Government	University
Fertility	3.1	1.9	11.8	21.6
KAP	65.7	32.1	17.1	43.3
Demographic	25.0	56.5	47.4	13.5
Demographic/Fertility	3.1	5.7	7.9	18.9
Multipurpose	3.1	3.8	15.8	2.7
Total	100.0	100.0	100.0	100.0
Number of Surveys[2]	32	53	76	37

[1] Excluding those with survey method or survey type not reported.
[2] Excluding those with survey type or sponsorship not reported.

Table 5

Fertility and related surveys in LDC's by sampling method and geographic coverage: percent distribution

Sampling Method	Geographic Coverage					
	National	Regional	Capital	Urban Only	Rural Only	Selected Urban/Rural
Single-Stage	25.4	26.7	38.5	0.0	16.7	18.5
Multi-Stage	74.6	73.3	61.5	100.0	83.3	81.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Surveys[1]	67	15	13	3	6	27

Table 6

Fertility and related surveys in LDC's by sampling method and sampling unit: percent distribution

Sampling Method	Final Stage Sampling Unit		
	Area	Household	Individual
Single-stage	52.7	2.5	0.0
Multi-stage	47.3	97.5	100.0
Total	100.0	100.0	100.0
Number of Surveys[2]	55	40	16

[1] Excluding those with sampling method or geographic coverage not reported.
[2] Excluding those with sampling method or sampling unit not reported.

Table 7

Fertility and related surveys in LDC's by sample size and questionnaire content: percent with item present or derivable

Item	Sample Size[1]			Number of Surveys[2]
	Under 4,000	4,000–9,999	Over 9,999	
Socioeconomic Status:				
Education	96.4	96.9	80.6	124
Economic Activity	96.3	93.8	80.6	122
Ethnic Group	19.2	58.6	60.6	114
Religion	77.4	56.7	51.5	116
Migration	90.6	66.7	54.5	118
Age at Marriage	90.0	77.8	55.0	78
Fertility:				
Pregnancy/Birth History	77.6	58.1	24.3	126
Births Last 12 Months	96.6	93.5	100.0	126
Children Ever Born	94.8	90.6	86.5	127
Children Surviving	91.4	86.7	85.3	122
Interval Last Birth	82.8	61.3	34.3	124
Pregnancy Status	85.2	62.1	34.3	118
Date First Birth	82.5	58.1	25.7	123
Number of Foetal Deaths	80.4	64.5	20.0	122
Fertility Related:				
Contraceptive Practice	82.1	50.0	5.9	120
Ideal Family Size, Additional Children	75.6	45.5	3.3	93

[1] Number of women or estimated number of eligible women.
[2] Excluding those with questionnaire information or sample size unavailable.

Table 8

Fertility and related surveys in all countries by survey type and region: percent distribution

Survey Type	Region			
	Africa	Asia	Latin America	Developed
Fertility	1.2	19.7	10.2	68.2
KAP	19.0	28.8	67.3	18.2
Demographic	63.1	28.8	14.3	0.0
Demographic/Fertility	11.9	10.6	0.0	4.5
Multipurpose	4.8	12.1	8.2	9.1
Total	100.0	100.0	100.0	100.0
Number of Surveys[1]	84	66	49	22

Table 9

Fertility and related surveys in all countries by survey method and region: percent distribution

Survey Method	Region			
	Africa	Asia	Latin America	Developed
Single-round Retrospective	57.4	69.2	82.6	95.2
Multi-round	33.8	20.0	17.4	4.8
Dual System	8.8	10.8	0.0	0.0
Total	100.0	100.0	100.0	100.0
Number of Surveys[2]	80	65	46	20

[1] Excluding those with survey type not available.
[2] Excluding those with survey method not available.

Table 10

Fertility and related surveys in all countries by geographic coverage and region: percent distribution

Geographic Coverage	Region			
	Africa	Asia	Latin America	Developed
National	47.1	58.4	28.6	86.4
Regional	12.9	6.2	10.2	4.5
Capital	5.9	10.8	26.5	0.0
Urban Only	2.4	0.0	4.1	0.0
Rural Only	3.5	1.5	6.1	0.0
Selected Urban and/or Rural	28.2	23.1	24.5	9.1
Total	100.0	100.0	100.0	100.0
Number of Surveys[1]	85	65	49	22

Table 11

Fertility and related surveys in all countries by female eligibility and region: percent distribution

Female Eligibility	Region			
	Africa	Asia	Latin America	Developed
All in childbearing age	63.7	2.6	95.1	10.6
Married or evermarried	36.3	97.4	4.9	89.4
Total	100.0	100.0	100.0	100.0
Number of Surveys[2]	22	38	41	19

[1] Excluding those with geographic coverage not available.
[2] Excluding those with female eligibility not available.

Table 12

Fertility and related surveys in all countries by region and questionnaire content: percent with selected items present or derivable

Item		Region			
		Africa	Asia	Latin America	Developed
Pregnancy or Birth History	Percent:	26.9	65.0	82.9	100.0
	Number[1]:	52	40	41	8
Contraceptive Practice	Percent:	18.0	60.0	80.5	87.5
	Number[1]:	50	35	41	8
Ideal Family Size, Additional Children	Percent:	13.6	52.0	76.7	100.0
	Number[1]:	44	25	30	8

Table 13

Fertility and related surveys in LDC's by region and year: percent distribution

Region	Year		
	1960–64	1965–69	1970 and Later
Africa	49.0	34.2	46.7
Asia	30.6	35.5	32.0
Latin America	20.4	30.3	21.3
Total	100.0	100.0	100.0
Number of Surveys	49	76	75

[1] Excluding those with necessary information not available.

Table 14

Fertility and related surveys in LDC's by survey type and year: percent distribution

Survey Type	Year		
	1960–64	1965–69	1970 and Later
Fertility	4.1	14.5	8.1
KAP	30.6	39.4	31.1
Demographic	57.1	23.7	44.6
Demographic/Fertility	0.0	14.5	8.1
Multi-purpose	8.2	7.9	8.1
Total	100.0	100.0	100.0
Number of Surveys[1]	49	76	74

Table 15

Fertility and related surveys in LDC's by year and questionnaire content: percent with selected items present or derivable

Item		Year		
		1960–64	1965–69	1970 and Later
Pregnancy or Birth History	Percent:	33.3	67.2	59.0
	Number[2]:	36	58	39
Contraceptive Practice	Percent:	37.1	64.8	40.5
	Number[2]:	35	54	37
Ideal Family Size,	Percent:	34.3	60.5	26.9
Additional Children	Number[2]:	35	38	26

[1] Excluding those with survey type not available.
[2] Excluding those with necessary information not available.

Table 16

Fertility and related surveys in LDC's by geographic coverage and year: percent distribution

Geographic Coverage	Year		
	1960–64	1965–69	1970 and Later
National	36.7	39.4	59.4
Regional	12.2	6.6	12.2
Capital	18.4	11.8	9.5
Urban Only	0.0	5.3	0.0
Rural Only	4.1	5.3	1.4
Selected Urban and/or Rural	28.6	31.6	17.5
Total	100.0	100.0	100.0
Number of Surveys[1]	49	76	74

[1] Excluding those with geographic coverage not available.

APPENDIX II

Fertility and Related Surveys
Included in the Inventory

Africa
Algeria, 1967–68, Enquête Socio-Démographique
Algeria, 1969–71, Statistique Nationale de la Population
Arab Republic of Egypt, 1965–66, Rural Vital Rates Survey in Lower Egypt
Arab Republic of Egypt, 1966, Population Sample Census
Arab Republic of Egypt, 1973–74, The National Fertility Sample Survey Project in Egypt

Burundi, 1965, Enquête Démographique
Burundi, 1970–71, Enquête Démographique Nationale

Cameroon, 1960, Enquête Démographique Nord
Cameroon, 1961, Enquête Démographique Adamaoua-Sud Benoue
Cameroon, 1962, Enquête Démographique Centre et Este
Cameroon, 1964, Enquête Démographique du Occidental
Cameroon, 1964–65, Enquête sur le Niveau de Vie à Yaounde
Cameroon, 1965, Enquête Démographique Sur-Oueste
Cameroon, 1965–68, Observation Permanente des Faits Démographiques
Cameroon, 1973, Observation Permanente des Faits Démographiques
Central African Republic, 1972–73, Observation Permanente des Faits Démographiques
Chad, 1964, Enquête Démographique au Tchad
Chad, 1970, KAP Survey
Chad, 1974, Sample Survey
Congo, 1960–61, Enquête Démographique
Congo, 1962, Enquête Démographique
Congo, 1972–73, Observation Permanente des Faits Démographiques

Dahomey, 1961, Enquête Démographique
Dahomey, 1974, Sample Survey

Ethiopia, 1964, Birth and Infant Death Registration Project
Ethiopia, 1969–70, National Sample Survey
Ethiopia, 1970, Ethiopian Population Research Project
Ethiopia, 1974, Demographic Sample Survey

Gabon, 1960–61, Enquête Post-Censitaire
Gabon, 1962, Enquête Démographique
Gabon, 1972–73, Observation Permanente des Faits Démographiques
Gambia, 1972, Pilot Census
Ghana, 1963, Rural Fertility Study
Ghana, 1965–66, Ghana Fertility Survey
Ghana, 1968–69, The National Demographic Sample Survey
Ghana, 1971a, 1970 Census Supplementary Enquiry
Ghana, 1971b, Demographic Economic Housing Survey (Urban Survey)

Ivory Coast, 1963–64, Enquête Socio-Economique à Abidjan

Kenya, 1969, Family Planning Attitudes among African Families in Nairobi
Kenya, 1972–1977, Survey of Population Change

Lesotho, 1971–63, Demographic Survey
Liberia, 1969–73, Population Growth Survey

Malagasy Republic, 1966, Enquête Démographique
Malagasy Republic, 1967–68, Recensement de la Commune d'Ambinanitelo
Malagasy Republic, 1969–70, Recensement de la Sous-Préfecture d'Anka-Zoabo

Malagasy Republic, 1974, Enquête Post-Censitaire
Malawi, 1970–72, Malawi Population Change Survey
Mali, 1960–61, Enquête Démographique
Mauritania, 1964–65, Enquête Démographique
Morocco, 1961–63, Enquête à Objectifs Multiples
Morocco, 1966, Survey of Knowledge, Attitudes, and Practice of Family Planning
Morocco, 1972–73, National Demographic Survey and Vital Registration Study

Niger, 1963–64, Etude Démographique et Economique en Milieu Nomade
Niger, 1970–71, Enquête sur la Fécondité et la Famille
Nigeria, 1965–66, Rural Demographic Sample Survey
Nigeria, 1967–68, Family Health Survey
Nigeria, 1969a, Age Statement Project
Nigeria, 1969b, Spread of Anti-Natal Knowledge and Practice in Nigeria
Nigeria, 1969–73, Rural KAP Survey in Ishan Division
Nigeria, 1970, Characteristics of Women Seeking Contraceptive Advice
Nigeria, 1971–73, National Fertility, Family and Family Planning Survey, (FFP-KAP)
Nigeria, 1973, Demographic Survey
Nigeria, 1973–74, National Fertility and KAP Survey

Rwanda, 1970, Enquête Démographique

Senegal, 1960–61, Enquête Démographique Nationale
Senegal, 1962–66, Enquête Démographique dans la Région du Sine-Saloum
Senegal, 1970–71, Enquête Démographique
Senegal, 1972–73. Enquête Fécondité au Cap Vert
Senegal, 1973, Enquête à Objectifs Multiples
Sierra Leone, 1969–70, Fertility and Family Planning Survey
Sierra Leone, 1971–72, Survey on Demographic Aspects of Marriage in Sierra Leone
Somalia, 1974–75, Post Enumeration Survey
Sudan, 1961–68, Sudan Demographic Survey

Tanzania, 1973–74, National Demographic Survey (Vital Rates Estimation)
Togo, 1961, Enquête Démographique
Togo, 1969–70, KAP Survey
Togo, 1971, Demographic Survey
Tunisia, 1964, Urban Survey
Tunisia, 1968–69, Enquête Nationale Démographique

Uganda, 1970–72, Demographic Survey
Upper Volta, 1960–61, Enquête Démographique
Upper Volta, 1969, Enquête sur le Changement Social et les Naissances
Upper Volta, 1972–73, Enquête Démographique

Zaire, 1967–68, Etude Socio-Démographique de Kinshasa
Zambia, 1969–70, Survey on Population Growth in Selected Urban and Rural Areas

Asia

Afghanistan, 1972–73, National Demographic and Family Guidance Survey

Bangladesh, 1963–64, Dacca Family Growth Study
Brunei, 1968, Social and Demographic Sample Survey

Hong Kong, 1967, Urban Family Life Survey, Hong Kong

India, 1955–60, 1969, The Khanna Study
India, 1962, Demographic Survey of Dharwar
India, 1962–69, Standard Fertility Survey
India, 1964 (continuing), Sample Registration System
India, 1965–69, Standard Fertility Survey
India, 1966, Greater Bombay Fertility Survey
India, 1968, 1970 (continuing), Narangwal Survey
India*, 1970–71a, Survey on Family Planning Practice in India
India, 1970–71b, Special Enquiry on Birth and Death Reporting
India, 1971–72 (continuing), National Sample Survey
Indonesia, 1962 (continuing), National Demographic Survey
Indonesia, 1968, KAP Study of Djakarta and environs
Indonesia*, 1970, Current Fertility of Djakarta
Indonesia, 1973, Fertility and Mortality in Indonesia
Iran, 1965a, Rural Fertility Survey
Iran, 1965b, Teheran Fertility Survey
Iran, 1968 (continuing), Survey of Population Characteristics
Iran, 1969–70, The Multipurpose Survey
Iran, 1971, Impact of Education on Fertility
Iran, 1972–75, Population Growth Survey
Iraq, 1973–74, National Fertility and Vital Events Survey

Japan, 1962, Fourth Fertility Survey
Japan, 1967, Fifth Fertility Survey
Japan, 1972, Sixth Fertility Survey
Jordan, 1972, National Fertility Sample Survey

Korea (South), 1968, Fertility and Family Planning Survey
Korea (South), 1970–71, Korean Attitudes and Birth Control Behavior
Korea (South), 1971, Fertility – Abortion Survey

Lebanon, 1973, Fertility Survey

Malaysia, 1966–67, West Malaysian Family Survey
Malaysia, 1967–68, Socio-Economic Survey of Households
Malaysia, 1970, PES/KAP
Pakistan, 1962–65, Population Growth Estimation (PGE) Experiment
Pakistan, 1968, National Impact Survey
Pakistan, 1968 (continuing), Population Growth Survey
Philippines, 1963, The Fertility Survey of 1963
Philippines, 1964, Birth and Death Registration
Philippines, 1965, Family Limitation Survey
Philippines, 1968a, National Demographic Survey
Philippines, 1968b, Study of Vital Events Registration
Philippines*, 1971–75, MCPS Sample Registration Program
Philippines, 1972a, Survey on Knowledge, Attitude, and Practice of Family Planning
Philippines, 1972b, Vital Rates Estimation (Philippines Survey 7-Population Change)
Philippines, 1973, National Demographic Survey

Saudi Arabia, 1972–73, Demographic Sample Survey
Sri Lanka, 1963–66, Rural Fertility Survey
Sri Lanka, 1969–70, Socio-Economic Survey of Population
Syrian Arab Republic, 1973, Infant Mortality

Taiwan, 1962–63, Taichung City Family and Fertility Study

Taiwan, Republic of China, 1965, 1967, 1970, Island-wide Fertility Surveys
Taiwan, Republic of China, 1966–69, Vital and Demographic Registration Study
Thailand, 1964–67, Survey of Population Change
Thailand, 1967–68, Family Planning in Bangkhen and Pregnancy Testing as a Fertility Measurement
Thailand, 1968, Pilot Study of Family Health in Thai Muslim Communities in South Thailand
Thailand, 1969, Fertility and Contraception in the Rural North of Thailand
Thailand, 1969 (continuing), National Longitudinal Survey of Social, Economic, and Demographic Change in Thailand
Thailand, 1970, Fertility and Contraception in the Rural South of Thailand
Thailand, 1971, Demographic Survey
Turkey, 1963, National Survey on Population
Turkey, 1965–69, Turkish Demographic Survey
Turkey, 1968, 1968 Survey on Family Structure and Population Problems in Turkey
Turkey, 1973, Survey of Population Problems in Turkey
Turkey, 1974–79, National Demographic Survey

Vietnam, (South), 1973 (planned), National Fertility and KAP Survey

Yemen Arab Republic, 1972, Socio-Demographic Survey of San'a City

Latin America

Argentina, 1964, Encuesta Comparativa de Fecundidad Urbana
Argentina, 1968, Estudio de Aborto Inducido en la Ciudad de Buenos Aires
Argentina, 1970, Estudio de Aborto

Barbados, 1964, Knowledge and Use of Birth Control in Barbados
Barbados, 1971, KAP Survey
Bolivia, 1968, Condicionamientos Socio-Culturales de la Fecundidad en Bolivia
Bolivia, 1970, Estudio de Aborto Inducido en Bolivia
Brazil, 1961, Encuesta Demográfica Experimental de Guanabara
Brazil, 1964, Encuesta Comparativa de Fecundidad Urbana
Brazil, 1972 (continuing), Pesquisa Nacional por Amostra de Domicilios

Chile, 1964–66, Encuesta Demográfica Experimental de Cauquennes
Chile, 1965, 1967, San Gregorio Experimental Family Planning Program
Chile, 1969–70, Health and Fertility in Rural Chile
Chile, 1973, National Fertility Study
Colombia, 1964, Encuesta Comparativa de Fecundidad Urbana en la Ciudad de Bogotá
Colombia, 1969a, Encuesta Nacional de Fecundidad-Rural
Colombia, 1969b, Encuesta Nacional de Fecundidad-Urbana
Colombia, 1970, Estudio de Aborto Inducido en la Ciudad de Bogotá
Colombia*, 1971–73, CIMED Sample Registration Program
Costa Rica, 1964, Encuesta Comparativa de Fecundidad en el Area Metropolitana de San José
Costa Rica, 1969, Encuesta Comparativa de Fecundidad Rural

Dominican Republic, 1969–71, National Demographic Survey

Ecuador, 1965, Encuesta de Fecundidad de las Ciudades de Quito y Guayaquil
Ecuador, 1967, Encuesta de Fecundidad Levantada en las Principales Ciudades y en Algunas Parroquias Rurales del Pais

Guatemala, 1965, Encuesta de Fecundidad Urbana
Guatemala, 1970, Urban-rural KAP Survey

Haiti, 1972 (planned), National Demographic Survey
Honduras, 1970 (continuing), National Demographic Survey (EDENH)

Jamaica, 1967 (continuing), Continuous Social and Demographic Survey
Jamaica, 1971–72 (planned), Fertility Mating and Contraception Survey

Martinique, 1968, L'Enquête de Fécondité et Famille en Martinique
Mexico, 1964, Encuesta Comparativa de Fecundidad Urbana
Mexico, 1969, Encuesta Comparativa de Fecundidad Rural

Nicaragua, 1968, Estudio de Aborto Inducido en la Ciudad de Managua

Panama, 1964, Encuesta Comparativa de Fecundidad Urbana
Panama, 1968, Estudio de Aborto Inducido en la Ciudad de Panama
Panama, 1969 (continuing), Encuesta de Hogares
Panama, 1974, Encuesta Demográfica de Panama (EDEP)
Paraguay, 1970, Análisis Integral de la Población del Paraguay y la Planificación Familiar
Paraguay, 1971, Abortion Study in Five Cities
Peru, 1965, Encuesta de Hogares en el Area Metropolitana de Arequipa
Peru, 1967a, Encuesta de Fecundidad en la Ciudad de Cerro de Pasco
Peru, 1967b, Encuesta de Fecundidad en el Agustino
Peru, 1969a, Encuesta de Fecundidad Urbana
Peru, 1969b, Encuesta Comparativa de Fecundidad Rural
Peru, 1970, Estudio de Aborto Inducido en la Ciudad de Lima
Puerto Rico, 1968, National Fertility Survey

Trinidad/Tobago, 1970–71, Family Planning Survey – Females

Venezuela, 1964, Encuesta Comparativa de Fecundidad en el Area Metropolitana de Caracas
Venezuela, 1972, National Fertility Survey

Developed Nations

Australia, 1971, Australian Fertility and Family Planning Survey

Belgium, 1966, 1970–71, Enquête Nationale Belge sur la Fécondité

Canada, 1967–68, Canadian Family Growth Study
Canada, 1971–72, Survey of Fertility in Quebec
Czechoslovakia, 1970, Research into the Reproduction of Marriages
Czechoslovakia, 1972, Research into Demographic Problems

Denmark, 1970, 1972, National Fertility Survey

Finland, 1971, Sexual Behavior and Contraceptive Practices among Finnish Adult Population
France, 1971, Enquête sur la Fécondité des Femmes en France

Greece, 1966–67, Retrospective Study of the Reproductive History of Greek Couples.

Hungary, 1966, National Fertility and Family Planning Survey
Hungary, 1966, 1969, 1972, Follow-up Survey of Persons Having Married in 1966

Netherlands, 1969, National Fertility Survey

Poland, 1972, Family's Query Sheet

United Kingdom, 1967, National Fertility Survey
United Kingdom, 1967–68, Survey of Fertility and Contraceptive Practice in Britain
United States, 1960, Growth of American Families Study
United States, 1965, National Fertility Survey
United States, 1970, National Fertility Survey
United States, 1971 (continuing), Current Population Survey
United States*, 1973 (continuing), National Survey of Family Growth
U.S.S.R., 1969, Survey of Attitudes on the Ideal and Intended Number of Children in the Family

Yugoslavia, 1970, Fertility of Married Women and Family Planning in Yugoslavia

* Surveys marked * are recent additions to the inventory which are not included in the tabulations in Appendix I. Also not included in the tabulations are a few items of information changed or added since June 1, 1973 to surveys in the inventory.

WORLD FERTILITY SURVEY

OCCASIONAL PAPERS

1.	Fertility and Related Surveys	William G. Duncan
2.	The World Fertility Survey: Problems and Possibilities	J. C. Caldwell
	World Fertility Survey Inventory: Major Fertility and Related Surveys 1960–73	
3.	Asia	Samuel Baum *et al*
4.	Africa	
5.	Latin America	
6.	Europe, North America and Australia	
7.	The Study of Fertility and Fertility Change in Tropical Africa	John C. Caldwell
8.	Community-Level Data in Fertility Surveys	Ronald Freedman
9.	Examples of Community-Level Questionnaires	Ronald Freedman
10.	A Selected Bibliography of Works on Fertility	György T. Acsádi
11.	Economic Data for Fertility Analysis	Deborah S. Freedman (with Eva Mueller)
12.	Economic Modules for use in Fertility Surveys in Less Developed Countries	Deborah S. Freedman and Eva Mueller
13.	Ideal Family Size	Helen Ware
14.	Modernism	David Goldberg
15.	The Fiji Fertility Survey: A Critical Commentary	M. A. Sahib *et al*
16.	The Fiji Fertility Survey: A Critical Commentary–Appendices	M. A. Sahib *et al*
17.	Sampling Errors for Fertility Surveys	L. Kish *et al*
18.	The Dominican Republic Fertility Survey: An Assessment	N. Ramírez *et al*
19.	WFS Modules: Abortion · Factors other than Contraception Affecting Fertility · Family Planning · General Mortality	WFS Central Staff

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