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SUMMARY OF THE
EXPERT MEETING
ON
AID DEMOGRAPHIC AND FAMILY PLANNING
DATA COLLECTION AND ANALYSIS NEEDS
(September 21-22, 1983)

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PREFACE

In August 1983, the Director of the Office of Population at the Agency for International Development invited a group of experienced professionals in the population field to help AID begin formulating a strategy for identifying and meeting new data needs in the 1980s. This interest reflects AID's continuing view that demographic and family planning data are critically important to the effective design, implementation, and evaluation of population policies and programs in less developed countries (LDCs). The challenge presented to the group of invited experts was how to determine priorities for programming AID's demographic assistance, in a period when funding constraints make it necessary to reduce the level of support for data collection and analysis activities.

The meeting was held at the National Academy of Sciences, September 21-22, 1983, with fifteen of the sixteen invited participants attending. The time volunteered by these experts to provide their assistance to AID is gratefully acknowledged by the Agency.

This summary was prepared from three sources: notes taken at the meeting by the rapporteurs; tapes made of the meeting and used to verify the rapporteurs' notes; and written statements furnished by approximately one-half of the participants.

The three major sections of this summary--Meeting Purpose and Context, Discussion, and Recommendations--follow a rough chronology of the meeting. The first section covers the purpose of the meeting, and policies and programs of the major donors--AID,* the World Bank, the United Nations Fund for Population Activities (UNFPA), and the Rockefeller Foundation. The second section comprises the discussion that followed these introductory remarks and lasted until mid-afternoon of the second day of the meeting. This material is organized not chronologically but by subject area (data collection methods, data collection/analysis tools and techniques, types of data, and other issues). It is hoped that this structure will make it easier for the reader to digest the wealth of ideas presented. Finally, the third section summarizes the concluding session of the meeting, at which recommendations to AID were presented via two mechanisms: a list of points of general agreement, read to and approved by the group; and a poll in which participants were asked to assign priority rankings to a list of potential areas of AID activity, identified by the group.

In conclusion, it should be noted that the ideas put forth in this summary reflect the opinions expressed by various participants. When an idea was expressed by several participants, the text so indicates; when there was significant disagreement with an idea, that, too, is indicated.

*Throughout this summary, the term AID is used to refer both to the Office of Population in particular, and to AID generally.

EXECUTIVE SUMMARY

Introduction

The expert meeting on AID's demographic and family planning data collection and analysis needs can be summarized in three roughly chronological parts: Meeting Purpose and Context, Discussion (organized by topic), and Recommendations (made at the closing session of the meeting).

Meeting Purpose and Context

In the opening session, the purpose of the meeting was identified as providing AID with guidance on the collection, analysis, and use of demographic and family planning data. AID seeks this guidance because of the need for data in evaluating program results, a desire to sustain the positive record of demographic data collection efforts, and an awareness that appropriately executed data collection and analysis efforts yield policy options that policy makers find difficult to reject. The context for the meeting was the cutbacks in AID's demographic portfolio, and the resultant need to examine the tradeoffs involved in various areas of data collection and analysis assistance.

Also in the opening session, four major donor organizations--AID, the United Nations Fund for Population Activities (UNFPA), the World Bank, and the Rockefeller Foundation--described their data collection and analysis programs and activities.

Discussion

Discussion focused on three areas of concern: data collection methods, data collection/analysis tools and techniques, and types of data. In addition, a number of issues were raised, including the use of data to influence policy makers, the need for country- or region-specific decisions about data collection and analysis, the need for training, the importance of an archive function to preserve the data from the WFS and other surveys, and the need for cost-effectiveness and cost-benefit analyses. Conclusions reached in these areas of discussion were drawn together at the closing session to form a series of recommendations for AID, summarized below.

Recommendations

Toward the end of the meeting, two mechanisms were used to elicit recommendations on AID priorities from participants. First, a list of points of general agreement expressed during the meeting was drawn up. These points were read out to the group, discussed, and revised accordingly. They appear as Table ES-1, "Points of General Agreement on AID Priorities."

The second mechanism used was a poll of participants, asking them to assign priority rankings to a list of suggested potential areas of AID activity. This list, too, was discussed and revised by participants before the scoring took place. The highest priority areas were: microcomputer development (especially software); archive function for WFS; and monitoring family planning program outputs. The lowest priority was given to: evaluating family planning program impacts on economic development; cost-benefit analyses of family planning versus other development work; and civil registration/vital statistics systems.

The participant rankings fall roughly into the five groups shown in Table ES-2. Note that along with the emphasis on microcomputer development and the WFS archive function, most of the activities in the two highest-priority groups would lead to better assessments of family planning operations and their impacts. In their scoring, participants offered a diversity of views. Thus, many activities assigned a generally high total score were assigned moderate or low scores by some participants.

TABLE ES-1 POINTS OF GENERAL AGREEMENT ABOUT AID PRIORITIES^a

- (1) AID should give significant support to microcomputer applications, especially software development (also hardware support, training).
- (2) Surveys:
 - Fertility and other types of surveys are still needed.
 - AID should give priority to flexible, multipurpose surveys for management and evaluation purposes. We should apply a module concept, varying emphasis according to need being fulfilled (e.g., management, supervision, program evaluation, prevalence measures).
- (3) Censuses: AID should provide analytical technical assistance, software support.
- (4) Service statistics: For all their shortcomings, there is no complete substitute for the information they provide to program managers.
- (5) It is important to explore further the question of the health effects of family planning programs, for purposes of both influencing policy makers and improving health (e.g., effects of programs on spacing need further exploration).
- (6) AID needs qualitative studies to complement quantitative work.
Corollary: Qualitative studies should be designed in conjunction with quantitative studies.
- (7) AID needs data and analysis on the consequences of population growth, both in countries without programs (e.g., Africa, Middle East), and in those where program accomplishments are flagging (e.g., fertility decline leveling off).
- (8) AID should give significant attention to measuring the availability and accessibility of family planning services and supplies.
- (9) AID should continue efforts aimed at training and the development of analytical capabilities within countries.

^aThese priorities are not listed in ranked order.

TABLE ES-2 SUMMARY RESULTS OF PARTICIPANT RANKING OF SUGGESTED AID PRIORITIES

<u>Priority Level</u>	<u>Activity</u>	<u>Total Score</u>
Highest (Scores of 55 and over)	Microcomputer development (especially software)	59
	WFS archive function	57
	Monitoring family planning program outputs	55
High (Scores of 48-52)	Service statistics for inputs	52
	Development of institutional capabilities	51
	Evaluating family planning program impacts on fertility	
	Measurement of FP availability/accessibility	50
	WFS-type surveys	50
	CPS-type surveys	49
	Monitoring family planning program inputs	48
Moderate (Scores of 40-44)	Research on demand/unmet need	44
	Service statistics for outputs	43
	Evaluating family planning program impacts on health/mortality	43
	CPS archive function	43
	Qualitative surveys	41
	Refine existing methods for family planning data	41
	Family planning cost-effectiveness analysis	40
	Census	38
	Refine existing methods for demographic data	36
Low (Scores of 34-38)	Develop new methods for family planning data	34
	Archive function for other surveys	34
	Develop new methods for demographic data	30
Lowest (Scores of 23-30)	Evaluate FP program impacts on economic development	29
	Cost-benefit analyses of FP vs. other development work	28
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1 MEETING PURPOSE AND CONTEXT

The opening session of the meeting addressed two broad areas: the purpose of the meeting, and the policies and programs of the major donors which form its context.

1.1 Meeting Purpose

The purpose of the meeting was to provide AID with guidance on the collection, analysis, and use of demographic and family planning data. AID seeks this guidance for several reasons:

- AID programs have historically included substantial investments in data to be used in evaluating program results.
- AID considers it important to sustain the positive record of demographic data collection efforts. These efforts have been marked by an emphasis on data quality, not just statistics, and by a profound personal impact felt within many countries.
- Appropriately executed data collection and analysis efforts yield policy options that policy makers find difficult to reject.

For this meeting, all of these purposes were placed in an important context: the cutbacks in AID's demographic portfolio, and the resultant need to determine the emphasis that should be placed on various potential AID activities in the collection and analysis of demographic and family planning data. Simply put, given limited funds, where should those funds be directed, and in what proportion? Throughout the meeting, it was emphasized that the discussion would have a very real influence on AID's new program allocations.

1.2 Policies and Programs of Major Donors

Four major donors described their demographic/family planning policies and programs. These included AID, Office of Population; the World Bank; the United Nations Fund for Population Activities (UNFPA); and the Rockefeller Foundation.

1.2.1 AID, Office of Population

Since its inception, the demography program in the Office of Population has been directed toward three basic objectives:

- To help develop awareness and understanding among LDC officials concerning their populations' characteristics, growth, and distribution.
- To assist in family planning program planning and implementation.
- To evaluate the impact of AID-supported population assistance programs.

To accomplish these objectives, demographic activities in the 1970s were focused in four areas:

Collection of new demographic and family planning data has formed the heart of the program since its establishment. Throughout the 1970s, emphasis was placed on collecting reliable demographic information through each of the major methodologies--sample surveys, censuses, and civil registration of vital events. The rationale was that these approaches are complementary: each has specific strengths and weaknesses, and no one approach can generate all of the data needed in LDCs. Moreover, it was reasoned that data from more than one approach would allow cross-checking of data for consistency.

The major survey efforts have been the World Fertility Survey (WFS), the Contraceptive Prevalence Survey (CPS), and the Birth and Death Data Collection (POPLAB) projects. Taken together, these survey projects, in addition to the more limited survey efforts of the Centers for Disease Control and Family Health International (formerly the International Fertility Research Program), have added substantially to knowledge of recent trends and determinants of fertility, mortality, and family planning in more than 50 developing countries. AID-supported census assistance has concentrated on training and technical assistance rather than on support for local enumeration costs. Support for civil registration improvement has been provided through The National Center for Health Statistics over the last several years. This focused on

technical assistance aimed at identifying weaknesses resulting in incomplete registration, and testing approaches for correcting these weaknesses. Project efforts were concentrated on a few key LDCs with at least 50-75% registration completeness.

Compilation and analysis of existing data have been supported by AID since 1969--initially through the U.S. Bureau of the Census, later through the Population Reference Bureau and the National Academy of Sciences, and most recently under the Demographic Data for Development (Westinghouse Health Systems) project. An important goal of this data compilation has been to enable the Office of Population to respond to ad hoc internal, Congressional, public, or international requests for statistics. However, in addition, special reports have been produced. For example, during the late 1970s the Bureau of the Census published a series of Country Profiles which provided a statistical summary of population characteristics for several LDCs, while Dualabs prepared special reports on women in development. The National Academy of Sciences, through its Committee on Population and Demography, prepared several country reports on estimates of fertility and mortality levels and trends, plus three reports on data collection and a major manual on demographic estimation techniques.

Demographic and social science research has also been an important area of activity. Some contractors have focused on trends, differentials, and determinants of fertility (e.g., National Academy of Sciences, WFS). Others have taken on the task of assessing the demographic impact of family planning programs (e.g., University of Chicago). An important part of AID's social science research program has been accomplished by commissioning small research projects from a prime contractor; examples of this approach are the past project with the Smithsonian Institute and the present program with the Population Council, International Research Awards Program on the Determinants of Fertility in Developing Countries. In addition, AID previously administered a similar project itself. All of these programs have been designed to produce contributions to scientific knowledge and population policy development. Other projects that have utilized demographic data to influence policy include the Population Policy Analysis (Battelle), which ended recently; the Integrated Population/Development Planning Project (Research Triangle Institute); and the RAPID I (1978-83) and RAPID II (1983-88) projects (the Futures Group).

In all of AID's past demographic activities, great emphasis has been placed on institutionalizing improved demographic capabilities in the participating LDCs. In survey projects, for example, host country organizations assume primary responsibility for successful completion of the surveys, and a high priority is placed on completing all phases of data processing and analysis in-country. At the same time, careful

technical assistance by contractors has resulted in a significant transfer of skills. This is evident in the way contemporary LDC survey staff have been able to take advantage of sampling frames, professional expertise, and computer software developed during earlier surveys. AID has also promoted institutionalization through its support of formal demographic training. The short-term census workshop activities of the Bureau of the Census and the East-West Population Institute were mentioned earlier. In addition, however, AID has sponsored longer-term statistical and demographic training through the Bureau of the Census, the Research Triangle Institute, and the University of Chicago, among others.

1.2.2 The World Bank

Bank demographic work normally falls into three areas:

Annual preparation of population projections for all countries of the world, published in the World Development Report and the World Development Indicators, as well as in a separate publication. For these projections, standardized trends in mortality and fertility have been devised, varying by country. The projections begin from 1980 and continue until mortality has reached a minimum, fertility is at replacement level, and all population growth has ceased; they thus yield an "ultimate" population size for each country.

Sector work for country economic reports or Population Health Nutrition Department country sector reports. Demographic analyses and reports are prepared for country economic teams or PHN staff engaged on sector work whenever the demography of a country is of special importance either to the economic situation or to PHN sector and project work. Usually, an outline of the demographic situation is prepared (including any fresh analysis of data required), and the implications of current demographic trends assessed by means of a range of population projections with varying paths of fertility, mortality, or migration.

Research and Special Reports. Several major research projects have been carried out in recent years, including a study of the determinants of fertility in Kerala, Karnataka, and Sri Lanka; a study of the determinants of fertility in Egypt; and a study of patterns of migration in West Africa. At present, a study of the determinants of childhood mortality in Sierra Leone is being drawn up. These are usually mounted in collaboration with governments, national research institutes, and other international organizations such as the Organization for Economic Co-operation and Development, UNFPA, and WFS. Special reports are also prepared from time to time; at present, studies are underway of the latest Indian census, of the determinants of fertility in India, of

population growth and distribution in Indonesia, and of the determinants and consequences of population growth in sub-Saharan Africa. This latter report is a regional counterpart to the series of case studies in human resources done for Korea, Brazil, Kenya, and Egypt prior to the Bank's reorganization. In addition, a series of demographic profiles for key countries is projected for the near future.

This year, a further major special report is being prepared--Part II of the Bank's annual World Development Report, devoted to the subject of population. The report is being written by a team of Bank economists, on the basis of an extensive set of Background Papers prepared by consultant and staff demographers and population specialists. Its four main themes will be the long-term and continuing problems posed by population growth, the substantial variation now emerging between developing countries in the nature and magnitude of these problems, the links between rapid population growth and poverty, and current knowledge of ways to combat the problems identified.

In addition to these established types of demographic work, it is anticipated that new requirements will be generated by future Bank lending for demographic data collection, processing, and analysis. It was also emphasized that the Bank welcomes collaboration with other agencies, particularly since its activities are restricted to providing loans to specific countries.

1.2.3 United Nations Fund for Population Activities (UNFPA)

To date, UNFPA has invested at least \$160 million in data collection and analysis; this represents an average of 16% of the total UNFPA budget for the years 1967-82. Breaking this figure down by method yields the following:

\$100M	Census Support
30M	Surveys
10M	Vital Statistics
20M	Other

The breakdown by region is as follows:

35%	Africa
29%	Asia and the Pacific
16%	Latin America and the Caribbean
14%	Middle East
5%	Mediterranean and Europe

For the future (1984-87), a lower level of support is projected: \$10-11 million per year (or about 10% of the total UNFPA budget). A small additional amount will be included in family planning projects.

1.2.4 Rockefeller Foundation

The Rockefeller Foundation believes in helping to build capabilities. For this reason, the Foundation supports institutional development, as well as a number of fellowships, including the Population Council fellowship program. Together with the Ford Foundation, support is also being provided for an October 1983 conference designed to help develop a research agenda on health frameworks. In addition, the Foundation supports research on a number of wide-ranging population topics.

2 DISCUSSION

Following the opening session, discussion among the meeting participants focused on three general areas of concern: data collection methods, data collection/analysis tools and techniques, and types of data. The discussion also raised a number of issues, including the use of data to influence policy makers, the need for country- or region-specific decisions about data collection and analysis, the need for training, the importance of an archive function to preserve the WFS and other surveys, and the need for cost-effectiveness and cost-benefit analyses.

2.1 Data Collection Methods

The discussion of data collection methods addressed the primary methods for fertility, mortality, and family planning data--census, surveys, civil registration/vital statistics, and service statistics/logistics systems; other methods were also addressed, including qualitative studies, experimental studies/field trials, and community-level studies. Table 1 summarizes many of the ideas presented about the relative strengths and weaknesses of three of the four primary demographic data collection methods.

Three general points emerged from the discussion:

- All of the primary methods have value, depending on the particular conditions being examined and the intended purpose of the data.
- The various methods are not in conflict, but in fact can and should be used to complement one another. In addition, analysis conclusions are strengthened if consistent results are obtained from independent data collection methods. Several specific examples of this complementarity were cited. Census and surveys together provide a balanced perspective: they yield different types of data, both of which are important. Census data, for example, provide essential baseline demographic data, while family planning survey data are vital in establishing and monitoring programs.

TABLE 1 Intrinsic Characteristics of Data Collection Methods in Providing Data Needed to Estimate Fertility and Mortality: A Comparison Using Seven Criteria

Data Collection Method				
Criteria	Civil Census	Sample Registration	Survey	
Topical detail (richness and diversity of subject matter)		Moderate	Weak	Strong
Accuracy	Moderate	Strong	Moderate	
Precision (absence of sampling errors)		Strong ^a	Strong ^a	Weak
Timeliness of data		Weak	Strong	Strong
Geographic detail (subgroups, etc.)		Strong	Strong	Weak
Obtaining information on population at risk ^b		Strong	c	Strong
Ease of organization in a developing nation		Moderate	Weak	Strong

Source: Data Collection: A Statement for Administrators, National Academy Press, 1981

^aAn important qualification must be noted. With respect to arriving at inferences, censuses and CR/VS systems are subject to sampling errors. For example, if one has a death rate for a city or county (based on complete registrations and a complete census) or for a specific cause, based on a small sample, and it differs from the death rate in another area (or for another cause), the difference may well be due to the number of observations involved and may not represent any real underlying difference in the cause systems. Thus, when the inference is to a cause system, as is common, census and complete registration results are subject to sampling errors.

^bThe "population at risk" refers to the group of persons who are subject to the events that are counted, measured, or analyzed. For example, the population at risk for the crude death rate is the entire population in the area under measurement or study. The population at risk for each age-specific fertility rate consists of all women in that age group. The population at risk of infant mortality includes all live-born children during their first year of life. (The infant mortality rate is frequently approximated by dividing the deaths to children under one year of age during a year by the number of births occurring in that year.)

^cIn general, CR/VS systems do not provide information on the population at risk. However, for some measures, such as infant mortality, CR/VS systems do provide data on the population at risk. Also, historical analysis is possible when CR/VS data from earlier periods are available.

- The choice of a data collection method should be country- or region-specific. For example, if a country or region has no existing population program, baseline data are needed; if there is an existing program, evaluation data are needed. (The country- or region- specific issue was raised in the context of several areas of the discussion, and is addressed separately in Section 2.4.2 below.)

2.1.1 Census

The principal source of demographic data is the census. Over the last several decades, censuses have been taken more regularly, particularly in the regions of Latin America and Asia and the Pacific. In fact, since China joined the ranks of countries with recent censuses, the only large population which has not been enumerated satisfactorily is Nigeria (it is too early to know whether or not the most recent Nigerian census will be accepted by the Nigerian Government). During recent decades, the quality of censuses has improved significantly, both in completeness and in data accuracy and consistency.

Although not as widely useful as some other methods, census was seen by most participants as having a continuing significant role in demographic data collection. First, a census can give a fix on the total population of a country, and can provide a point of reference for survey efforts. Second, census is important in shaping program plans and influencing policy makers. Two examples were given:

- The United Nations, AID, and several other groups such as the East-West Population Institute have encouraged national statistical offices to make better use of census data, especially in the estimation and analysis of population growth and its fertility and mortality components. This estimation work has provided an important basis for preparing population projections for national development plans.
- In Africa, there is much more interest now in family planning than there was four or five years ago. While this increased interest cannot be linked positively to the influence of census data, it was generally agreed that these data are needed for sub-Saharan Africa to influence policy makers.

Several caveats were raised by participants. First, it is necessary to consider the appropriate mix of census data and family planning program survey data when determining the most effective ways to influence policy makers (see also Section 2.4.1 below). Second, it was suggested that AID should encourage the appropriate U.N. bodies (Statistical Office, Population Division, UNFPA, U.N. Development Programme) to provide support to census efforts. Third, there should be increased efforts to improve the quality of census data analysis, preferably from within-country. Finally, AID support for censuses should be limited in nature, including analytical technical assistance and software support, but not comprising the entire census effort.

2.1.2 Surveys

As a method of collecting demographic and family planning data, surveys are generally more flexible than censuses, both in their topical detail and in their focus. Surveys can be classified according to their frequency and their scope, which will usually depend upon their intended use.

Frequency. Surveys may be one-time; repeated at irregular intervals; repeated at short, regular intervals; or repeated at longer, regular intervals. An essential distinction between one-time and repeated surveys can be made according to their use: the former provide baseline data, especially important in countries without an existing family planning program; the latter permit better monitoring of demographic change and evaluation of existing programs, as well as the establishment of time series.

Participants pointed out that baseline data are essential for influencing policy makers, as well as for establishing the conditions under which a program would be developed and the specific objectives of that program. This was seen as an especially vital function in Africa. Baseline data are also essential as a benchmark for measuring progress once a program has been established.

In general, however, participants agreed that repeat, periodic surveys are most vital, especially for monitoring progress once a program has been established. Although it was noted that such surveys cannot always have the depth of the WFS (because of cost concerns), more limited efforts like the CPS should continue to be supported. These should be undertaken approximately every three to four years.

Scope. Surveys can have a broad national scope, or be limited to a subnational or local level. Again, the choice will depend on the intended use of the data: the establishment of baseline data and the estimation of program availability and utilization, for example, require national-level data; the monitoring of specific program impacts, on the other hand, may require more limited survey data, for example, an evaluation of a community-based distribution program in rural areas.

Several other issues related to surveys were raised by participants. One particularly important point made was that AID should give priority to flexible, multi-purpose surveys, to be used for program management and evaluation purposes. Specifically, a module concept should be employed, with the emphasis of the survey depending on its intended use (whether for management, prevalence measures, more detailed program evaluation, or some other purpose). It was emphasized that surveys are ideally suited to providing this kind of flexibility. It was also pointed out that population-related questions (e.g., on morbidity/mortality) could be added to various kinds of surveys already being undertaken in many countries and regions (e.g., labor force and consumer expenditure surveys). The flexibility of surveys was once again emphasized when it was noted that surveys can provide birth history data, which can in turn serve as an important check on both fertility and infant/child mortality estimates. In fact, it was suggested that we should examine the potential use of surveys to get at cause of death.

Two final points were made about surveys. First, it is important to formulate strategies for the future based on a thorough evaluation of past survey efforts, similar to the assessment of the WFS now being performed. This will both ensure that full benefit is derived from these past efforts, and foster continuing progress in survey technology. Second, the possibility was raised of carrying out surveys through interagency cooperation, rather than using one agency to carry out all of the related activities. This would, of course, require a coordinating mechanism so that questionnaires would be interchangeable and comparable; the cost-effectiveness of this as opposed to a single-agency approach would also have to be assessed. (WFS experience can be considered; major donor agencies provided support, with the work implemented in over 40 countries through a centralized coordinating mechanism.)

2.1.3 Civil Registration/Vital Statistics

Vital statistics systems are an essential source of basic demographic data. However, such systems are generally weak in the LDCs, with a few exceptions, and improvements have been very slow. Participants agreed that the primary responsibility for generating improvements to these systems lies with the U.N. Statistical Office. A strong recommendation was made that AID try to light a fire under the U.N. to encourage the carrying out of this responsibility.

It was also noted that in countries where these systems provide relatively complete information, the data have often not been fully utilized for purposes of demographic analysis. In many cases, birth and death registration certificates contain data that are never published and rarely analyzed fully. Where unpublished tabulations of vital statistics data exist, a relatively small investment for demographic analysis might be worthwhile. In addition, AID could encourage greater application of

the newest indirect estimation techniques, some of which can be used to construct demographic estimates from vital statistics data obtained in systems where the registration of vital events is only 60 or 70% complete. Manual X in the United Nations series of demographic manuals describes these methods and provides examples of their use. (This manual was produced under the AID-funded project at the National Academy of Sciences.)

2.1.4 Service Statistics/Logistics Systems

It was generally agreed that service statistics are important both for record-keeping purposes, and for purposes of program evaluation (measurement of outputs, impacts). It was emphasized that service statistics are not a substitute for survey data, which provide greater detail on individuals who accept and/or use family planning. On the other hand, surveys of these individuals cannot provide the detailed information needed for program management purposes, such as data on facilities, training programs, vehicle use, and staff assignments. Emphasized in particular was the need for data on the mix of family planning sources (government vs. private); as an example, it is not possible to use WFS prevalence data to distinguish whether current users obtain their supplies and services from the public or the private sector. (WFS data on ever-use of contraception can be so distinguished.)

It was also suggested, however, that too little emphasis has been placed on improving the quality of service statistics. It was observed that, unlike demographic data, service statistics are often taken at face value, and that the advice and training provided to LDCs in census and survey operations and analysis has not had its counterpart in service statistics training.

Several suggestions were made for improving service statistics. It was pointed out that most measurement errors occur on the output side, and almost always in the same direction, that is, showing the program as more successful than it in fact is. The need to train program managers and to provide technical assistance was emphasized. Specifically, it was suggested that support be offered in developing simpler forms, in identifying the kinds of input data needed for program management, and in enhancing data collection efforts through the use of microcomputers. It was also suggested that program managers be trained in making better use of the data collected. For example, some programs track acceptor age and parity trends, while many others do not; more tracking of this type could be encouraged. It is probably unwise to try to develop a system applicable to all areas; rather, the need for flexibility was emphasized. Finally, it was suggested that where service statistics are unavailable, logistics systems can serve as a substitute. (For some methods, it is better to use the logistics systems data; for example, rather than keeping track of the numbers of persons coming for condoms and creams or

jellies, the information on supplies distributed to clients should be used to measure program output. A related point here is that the definitions of service statistics and logistics information sometimes overlap.)

2.1.5 Other Methods

In addition to the four major data collection methods discussed above, participants focused on three other methods: qualitative studies, experimental studies/field trials, and community-level studies.

Qualitative Studies. While not a substitute for surveys, qualitative studies provide a different perspective on issues and problems. Among many potential applications, they can help identify the reasons why a particular method is unsuccessful in a given locale. An example given was the use of focus groups in Thailand, which revealed reasons for the decline of vasectomy that would not have emerged from survey data. Another example was the eliciting of an interest in spacing rather than in family planning. Qualitative studies can also yield new theories by following a more inductive approach. In addition to focus groups, qualitative studies include participant observations and anthropological studies.

Two caveats were suggested by participants. First, caution is necessary because of potential weaknesses in the design and execution of such studies; for example, there may be leader direction of responses, and there is some question as to what population is represented by a small group of, say, 6-8 people. Second, and partly as a result of this need for caution, it is very valuable to design and analyze the results of qualitative studies in conjunction with quantitative studies, especially surveys, as was done in Thailand. For example, investigating survey results can provide a probability sample to serve as the basis for a qualitative study. An example of the potential utility of this approach was noted for Panama: the 1979 CPS showed much use of sterilization; it would have been helpful to have had detailed discussions with a subsample of the survey concerning sterilization.

Experimental Studies/Field Trials. Field intervention was discussed as a means of establishing the causality suggested by multivariate analyses. In particular, experimental studies can be useful for examining the relationships among various family planning inputs and outputs; the Office of Population is currently doing some quasi-experimental research to this end.

While there was general agreement on the utility of this method for some purposes, it was also agreed that this utility is limited, and that experimental research has a number of drawbacks, and should be approached with caution. Its primary drawbacks include the time and costs involved. In this connection, there was disagreement about the necessary frequency of experimental studies: some felt that a few such studies

suffice for their intended purpose; others pointed out that, given wide cultural variations, results from one study cannot often be extrapolated for another setting. It was also pointed out that experimental studies involve significant implementation problems: local people may not adhere to the research design; many such studies are never completed and/or written up; and there are ethical questions involved, such as helping one locality and not others, and pulling out when the study has been completed. There are also problems of research design and data analysis: experimental studies must be large enough and last long enough to take most variables into account; the possibilities for contamination are great; and it is difficult to control sources of variation. It was also pointed out that effects change over time, and that the cut-off point for such studies may occur before significant changes occur.

Given all of these caveats, it was agreed that experimental studies should be undertaken only if they involve thorough data collection and analysis efforts in addition to the experimental components. Moreover, such studies should receive intense monitoring and careful follow-through. Under these conditions, they can be a valuable knowledge tool.

Community-Level Studies. Several participants emphasized the need for in-depth community-level data. It was pointed out that the WFS attempts to address the effects of community variables did not generate sufficient assessments. However, community-level studies can help develop and refine the instruments for larger surveys. It was also suggested that such studies provide data needed for studying particular subpopulations, and for monitoring the impacts of family planning programs in local areas.

2.2 Data Collection/Analysis Tools and Techniques

Most of the discussion of data collection/analysis tools and techniques focused on two areas: the enhanced use of microcomputers, and the application of market research tools to family planning data collection. Other tools and techniques discussed included longitudinal analysis, multivariate analysis, sampling, data processing, and indirect estimation techniques. In addition, several related issues were addressed: techniques for assessing the quality of data; the tradeoffs involved in attempting to develop new methodologies versus using and refining existing ones (frequently a new method is developed from an attempt to apply an existing method to a body of data with different problems); the tradeoffs involved in collecting new, more recent, data versus performing additional analyses of existing data; the need for emphasis on data analysis; and the importance of following the principles of research design.

2.2.1 Microcomputers

This topic could fairly be said to have generated most interest among participants, an interest that is reflected in the relative ranking assigned to it among AID priorities (see Section 3, Tables 3 and 4). It was generally agreed that microcomputer applications can facilitate the processing and detailed analysis of survey data, and enhance the impact of those data by speeding up the survey timetable from data collection to processing to analysis to final report. Microcomputer technology can be used to improve and speed up the implementation of several survey steps, including data entry, editing, tabulation, and analysis. In addition, it was agreed that AID should explore the possibilities of microcomputer technology for improved data gathering. As an example, interviewers might be furnished with electronic devices preprogrammed so that coded responses could be entered and recorded on a cassette tape; such a system would also accommodate explanatory comments and the entry of responses that do not fit into precoded categories. The cassette tape could in turn be read by a computer carried by a supervisor, which could have software that would permit a quick check for inconsistencies and missing data. In addition, the interviewer's preprogrammed software could have the capability of referring to an earlier questionnaire, so that consistency with those answers could be checked. It was also suggested that, given the necessary software, micros could be used to process census data.

The main barrier to the increased use of microcomputers is a lack of three things: transferable, compatible hardware; necessary software; and adequate training.

The notorious problem of hardware compatibility becomes greatly intensified when numerous different countries are involved: software and techniques used with mainframes cannot be applied to micros; software and training for one micro may well not be transferable to another.

The software problem is even more severe: not only is existing software often not transferable from mainframe to micro, or from one micro to another; there is also a great basic need for the development of software to be used in the collection and analysis of demographic and family planning data. In this connection, the tradeoffs between developing new software and downloading existing software from mainframe to micro must be examined. The World Bank has been investing significant effort in downloading; however, it was pointed out that downloaded programs can be problematic, and that development from scratch should not be dismissed. In general, it was agreed that the development of software usable on most common systems, especially for survey data processing and analysis, would yield a big payoff for a relatively small investment. It was also suggested that software development should first be applied to the simpler analytical methods in use in most LDCs, such as cross-tabulations and simple multivariate techniques. Finally, it was noted that once donors make an initial investment in software development, private industry is likely to become interested.

The problem of adequate training relates to both hardware and software. Participants noted, for example, that training done in this country may be of limited utility if people return home to countries where the hardware in use is different from that on which they were trained. It is obvious that both hardware and software provided with donor support will be underutilized unless potential users receive adequate training; therefore, a number of participants emphasized the need for in-house, in-country training.

2.2.2 Market Research Tools

Market researchers, like demographers, make use of baseline survey data when they are developing strategies and introducing new products and services. However, market researchers seem to make more effective use of these baseline data, and have developed advanced marketing and information approaches. It was suggested that demographers who collect baseline survey data of the WFS or CPS type tap the expertise of the market researchers. Specifically, the tools and techniques of market research should be applied to demographic data when family planning programs are designed and implemented.

2.2.3 Other Tools and Techniques

A number of additional tools and techniques for collecting/analyzing demographic and family planning data were discussed or noted: longitudinal analysis, multivariate analysis, sampling, data processing stages, and the use of indirect estimation techniques.

Longitudinal Analysis. Participants suggested that, as a complement to cross-sectional survey data, it is important to use longitudinal data to follow up on the same people over time. Such data can capture changes in childbearing attitudes and behavior, for example, and provide information on how, when, why, and to whom these changes occur. Thus longitudinal data can provide an important check on other sets of data. It was noted that, although it can be expensive to collect longitudinal data, the necessary investment can be minimized by re-interviewing a subsample of respondents from large-scale surveys already conducted.

Multivariate Analysis. Participants observed that for some purposes, multivariate analysis has limited utility, though it can serve to confirm the findings of cross-tabulations. Moreover, it can yield faulty causality, for example, as regards the impact of programs on fertility. It was observed that the complexity of multivariate analysis is inevitable in the population field.

Sampling. It was suggested that sampling can be used with vital statistics; for example, sample registration systems have been used in some countries as an interim substitute for a total national registration

system, and in systems that are complete or nearly so, the sampling of records can reduce processing. Sampling with service statistics was also suggested; for example, in Indonesia only a 10 percent sample of data on acceptors is processed each month.

Data Processing Stages. Data processing, especially editing and cleaning, is a time-consuming process that can result in significant delays in analysis and in the production of a final report. It was suggested that this process be regarded as having stages, and that for some policy purposes, initial summary analyses and reports may precede complete data processing. It was also noted that microcomputers for staff or offices in the field, as well as other advanced technologies, could speed up the process considerably.

Indirect Estimation. Additional analysis of existing data can be enhanced by greater application of indirect estimation techniques. The NAS manual on indirect estimation, being published by the U.N., provides step-by-step instructions on how to apply many of these techniques.

2.2.4 Related Issues

Assessing the Quality of Data. The importance placed on the need for assessing the quality of data was evident from participants' emphasis on using the various methods, tools, and techniques as checks on one another. It was also pointed out that concern for the quality of data should be reflected in the research design; for example, those who design surveys should consider training interviewers to clarify inconsistencies with respondents.

Developing New Methodologies and Data Collection Techniques Versus Using and Refining Existing Ones. It was noted that efforts and resources should be directed towards the development and improvement of methodologies for data collection, processing, and analysis--on a limited scale, but on a continuing rather than an ad hoc basis. On the other hand, it was suggested that it is wasteful to seek new methodologies and data collection techniques when existing ones will suffice. It is important, for instance, to examine what has been learned, especially with the WFS, before deciding future directions. For example, surveys over time can go not only forward, but also backward; the KAP surveys from the 1960s and the early 1970s can thus be lined up with WFS results. The Population Studies Center at the University of Michigan is currently engaged in a KAP retrieval project which is attempting to bracket surveys over a period of major socioeconomic change and family planning program development. This project has been carried out in eight months at a cost of \$60,000. Clearly, there is a valuable resource here for the population community that can be made available at a fraction of the cost of a single survey. It was also suggested that AID should promote a systematic canvas of what has been learned from the WFS, and what more can be learned from second-stage analyses.

At the present time an assessment of the entire WFS experience is underway, including the preparation of a systematic documentation and appraisal of all WFS survey operations. The central purpose of this assessment, which includes essays prepared by staff and outside experts, is to extract the lessons learned over the past dozen years and communicate them to interested individuals and organizations. To this end, the WFS is organizing an international symposium on 24-27 April 1984 in London to present the findings of the assessment program as well as an update on recent survey findings.

Collecting New, More Recent Data Versus Performing Additional Analyses of Existing Data. New data are essential for some purposes, e.g., monitoring prevalence trends over time. For other purposes, however, much more analysis of existing data is needed; an example is the study of the determinants of fertility change. The KAP retrieval project noted above is relevant in this context also.

Emphasis on Data Analysis. Participants noted that, while survey results should be made available as quickly as possible, there is often a significant delay between data collection and final report preparation. A major contributor to these delays is the lag between collection and analysis. Several suggestions were made for addressing this problem. These included allocating funds up front for analysis; transferring analysis techniques to researchers in the countries where the studies are carried out; promoting analysis by those other than data collectors; and organizing multi-country analysis workshops, which would yield meaningful data analysis while at the same time increasing skills among researchers.

The Importance of Following Principles of Research Design. It was suggested that, in moving from broad needs and theory to actual data collection, care must be taken with the intermediate steps. Studies should be soundly based on theory, although it was noted that this does not mean we should be restricted to existing theory. It was also suggested that we need to pay more attention to both the broad and specific goals of our research before we can meaningfully address data needs. Indeed, we may have erred in the past by forgetting the canons of our introductory research methods course--set up the dummy tables before finalizing your survey or data collection tools. If we had done more of this, we could have sharpened and made more efficient some of the large-scale data collection enterprises in which we have recently engaged. The state of our knowledge and previous experience enables us to draw a tighter line running from theory to hypotheses to data collection to testing, in a number of key subject areas.

2.3 Types of Data

Participants discussed the major types of demographic and family planning data, including the following:

- Fertility
- Proximate determinants
- Family planning programs
 - Demand/unmet need
 - Program availability/accessibility
 - Program performance
 - Prevalence
 - Impacts
- Infant feeding practices and child spacing
- Morbidity/mortality
- Consequences of population growth

While all of these were seen as important, data on family planning programs and infant feeding/child spacing received most emphasis in the discussion.

2.3.1 Fertility

Several participants stressed the need for continued fertility studies for purposes of establishing trends; it was suggested that data on number of births, preferably by age of mother, be gathered at intervals of about three years. The primary data collection method here is the survey. Some countries have the interest and capability to undertake fertility surveys without major outside assistance; the World Bank and UNFPA are also involved in such survey efforts, and it was suggested that AID should coordinate its activities in this area with those agencies. In addition, some special surveys will be necessary in countries of particular interest, perhaps as part of the CPS effort, but keeping in mind that the quality of the fertility data collected by the CPS needs to be evaluated.

It was further suggested that in the future, more attention may be given to the gathering and analysis of fertility data based on parity progression measurement. The essential idea is to organize fertility data according to parity cohorts--groups of women who had a birth of a given order during a given time period.

2.3.2 Proximate Determinants

Several participants emphasized the need for data on the proximate determinants of fertility (contraception, nuptiality, abortion, breastfeeding/amenorrhea, and other cultural and traditional factors affecting reproductive behavior). Also noted was the need for data on the proximate determinants of mortality, and on the proximate determinants of economic well-being (e.g., government policies), so that the impacts of family planning programs on economic well-being can be measured.--

It was suggested that reliable data for some of the proximate determinants are difficult to obtain; this is especially true of breastfeeding and abortion data. Data on the frequency of intercourse were also mentioned as useful, particularly for understanding how natural fertility varies by age, and why nuclear families have higher fertility than joint families in pretransition stages.

2.3.3 Family Planning Programs

Family planning program data received primary emphasis among the types of data discussed. Data on availability/accessibility, outputs (performance/prevalence), and impacts (particularly on fertility) were assigned a high priority by participants (see Section 3, Tables 3 and 4), with data on demand/unmet need receiving some emphasis as well.

Demand/Unmet Need. While emphasized less than other types of program data, the concept of demand/unmet need was noted as essential to an assessment of the nature and extent of potential programs. In this connection, the use of market research techniques was discussed as a way of collecting this information (see also Section 2.2.2 above). Several of the AID-supported projects noted earlier assist studies that address the demand for fertility control and unmet need for family planning services. Also, the AID-supported NAS Panel on Fertility Determinants gave attention to demand in its Summary of Knowledge volumes (Fertility Determinants in Developing Countries, Academic Press, 1983).

Availability/Accessibility. Availability data can be defined as information on the ready and easy availability of family planning supplies and services among the urban and rural populations in a country, including total availability (one or more methods) and method-specific availability. "Ready and easy" must be further specified to include distance and/or travel time and a cost dimension, such as a given percentage of average monthly income. Some participants suggested that this definition be further refined to make a distinction between availability (Does a program exist?) and accessibility (If so, how accessible is it?).

In any case, there was general agreement that availability data are generally lacking, although the situation is somewhat better today than five years ago, especially concerning information on perceived availability as measured in WFS and CPS studies. Regarding objective assessments of actual availability and accessibility, while informed observers can provide reasonable guesses, there is insufficient information based on hard data. Thus, although the CPS and WFS provide useful information about respondents' perception of availability, this should be supplemented with information about service points (public, private, commercial) by method, by cost, by time of day, and days of the week, and the like. Moreover, program managers can have inflated notions about the availability of supplies and services in their countries. The

basic task is to determine the proportion of the population that has ready and easy access to family planning supplies and services, in urban and rural areas.

It was suggested that a detailed strategy for obtaining availability data be developed. Essential principles include random sampling of areas using the survey approach; mapping work to determine appropriate strata for study design; quality control on all phases of the activity; and review of the possibility of combining the collection and analysis of availability data with contraceptive prevalence studies. This strategy might well use the techniques of market research, discussed above in relationship to demand/unmet need, to measure the market penetration of program services and supplies. It was also noted that qualitative studies can supplement surveys in providing the necessary data.

Program Performance/Program Effort. Noting the current AID emphasis on providing services rather than collecting data, participants emphasized the need for measures of program effort as an important evaluation tool, providing a scientific basis for programmatic decisions. Specifically, it was suggested that attention be given to measuring the key program elements that lead to success; the information gathered might include perceived quality, as well as survey data from service providers (perhaps related on a subnational basis to prevalence). It was generally agreed that AID and the rest of the field lack substantive measures of "program effort" (although work on this is being done now by Mauldin and Lapham, picking up on previous measures, with modest support from AID, the World Bank, the Rockefeller Foundation, and the Hewlett Foundation). The goal should be to develop and encourage the use of an agreed-upon set of program effort measures, for both evaluation and management purposes.

Prevalence. Like program effort, prevalence was emphasized as the kind of in-the-field implementation data on which AID should place a high priority. These data can make up for deficiencies in acceptance and continuation rate data, and can serve as guidelines for program target setting and evaluation of program accomplishments. It was suggested that contraceptive prevalence surveys should be continued, about every three years, and perhaps tied to census years. Such surveys should include data on respondent characteristics and use patterns so that one can measure, for example, prevalence by method and by age of user.

Impacts. Data on the impacts of family planning programs fall into three areas: fertility, health/mortality, and economic development. Among these, participants agreed that fertility impacts have been the most widely studied, although there is not universal agreement among scholars on interpretation of the findings. Nevertheless, because the relationship between program inputs and fertility impacts has been established by some scholars, these data can be useful in convincing policy makers of the value of program interventions. However, it was also noted that there is no simple, cheap, replicable method for evaluating the impacts of health and family planning interventions, and

that such efforts should be coordinated with fertility data collection methods. In this connection, it was observed that it is difficult to sort out the effects of family planning programs and other interventions, especially nutrition programs, although it was noted that this may be due more to a lack of data than to a lack of tools, and that there are areas available for study in which there has been only a family planning intervention. One specific area in which a need for impact data was noted is the question of whether the plateauing of population growth can be traced to program efforts, or to other causes. The need to distinguish between plateauing in fertility and plateauing in prevalence was also emphasized (for example, the prevalence of less reliable methods may increase, as in the Philippines). In general, it was agreed that further study is needed of the relationship between program inputs and changes in both prevalence and fertility. (These relationships are being analyzed in the study by Lapham and Mauldin, which uses data from approximately 100 countries.)

While the greatest emphasis among policy makers--both on Capitol Hill and in other countries--has been on the fertility impacts of family planning programs, there is some indication that this emphasis may decline over the next five years. As a consequence, health/mortality and economic development impacts may take on an increasing political utility.

As regards health/mortality impacts, these are generally seen as easier to measure than economic impacts, and of potentially significant value in influencing policy makers. However, it is difficult to establish causal links between program efforts and health/mortality improvements. For example, couples may use family planning as a substitute for breastfeeding (as was found in Malaysia), with the result that spacing stays about the same, but mortality can increase. In this connection, it was noted that, while it may be difficult to establish links between family planning efforts and improvements in health/mortality, it may be easier to show a clear impact on people's internal state of well-being, that is, on people having what they want.

Like data on health/mortality impacts, data on economic development impacts are likely to yield conflicting results that, as a consequence, will not have much influence on policy makers. Moreover, economic impacts are seen as particularly difficult to measure. However, it was suggested that policy makers in other countries are concerned about the adverse effects of high population growth on development, and are looking at the immediate determinants of fertility (and mortality) that can be changed by program interventions. Because these data do have great potential for influencing policy makers, and because economic impacts have scientific importance as well, participants agreed that efforts to collect these data should not be abandoned. Causality in the other direction--the effects of various development inputs on both family planning attitudes/practices and fertility patterns--was also noted as important. In particular, it was observed that, while macro studies of

the economic impacts of programs have been done, there is a need for more data at the community and family levels, including ethnographic and anthropological studies. (See also Section 2.3.6 below.)

2.3.4 Infant Feeding Practices and Child Spacing

Several participants stressed the need for data on infant feeding practices--both breastfeeding and supplemental feeding. The relationship between these practices and child spacing was also emphasized. Program impacts on spacing were noted as being of particular importance, given the WFS finding that spacing of children more than two years apart leads to a significant reduction in infant and child mortality. This interrelationship, to which most countries have paid little attention in the past, may be an excellent way to introduce family planning in countries without existing programs. On the other hand, the link between family planning programs and spacing has not been firmly established. It was noted that early program impacts are more on stopping than on spacing: although the use of contraception for spacing (at least at lower parity levels) does increase once programs have been in place for a while, a distinct causal link has not been shown between birth intervals and fertility trends. It was suggested, in fact, that in some cases, increased use of family planning may coincide with shorter intervals, e.g., in some African settings where, simultaneously with increased prevalence, there is reduced breastfeeding and abstinence following childbirth. Clearly, this is an area requiring further study.

2.3.5 Morbidity/Mortality

High levels of mortality are a hindrance to policy makers in many parts of the world who wish to give attention to fertility control. It was suggested that more effort be directed at collecting mortality data, not only because this information is needed for calculating rates of population growth, but also because mortality rates are changing, and information about that change can be useful in formulating both mortality and fertility policy.

Like fertility data, mortality data should be collected at regular intervals, not to exceed five years, so that trends can be established. As regards morbidity, it was noted that it is more difficult, and costly, to obtain these data reliably.

2.3.6 Consequences of Population Growth

Related to the issue of measuring family planning program impacts on economic development is the collection and analysis of data on the consequences of population growth. It was noted that the tools for measuring the relationships between population growth and development do exist, and that the data can be obtained at a reasonable cost.

Many countries where fertility has not begun to fall (at least measurably) lack an awareness of the relationships between population growth and socioeconomic conditions. The principal population policy objectives expressed by LDCs are as follows:

- To lower fertility and rates of population increase
- To increase life expectancy, and particularly to reduce infant, child, and maternal mortality
- To slow (rationalize) rural/urban migration

It should be noted, however, that a large number of countries do not have specific population policy objectives. Also, there are several LDCs that feel their fertility rates are too low, and others with high fertility rates that wish to maintain those rates.

For those countries that have not articulated population policies and those that desire to maintain high rates, AID resources could be used (1) to develop the capacity within those countries to analyze the relationships between population and social and economic development, (2) to collect the data needed to study those relationships, and (3) to undertake studies of the consequences of population growth. Fertility remains high and shows no sign of decreasing in sub-Saharan Africa, most of the Arab world, and several large Moslem countries such as Iran, Afghanistan, Pakistan, and Bangladesh. There appears to be sufficient commitment to population problems only in Bangladesh among the countries just named, although to date Bangladesh has not been able to mount an effective family planning program.

Because rates of population growth are very high in the areas listed above, and economic development is generally slow in many of those areas, it was suggested that an appropriate AID strategy would be to concentrate on reducing mortality in the very near future, at the same time helping selected countries develop the institutional capacity to analyze the consequences of population growth.

An issue related to the consequences of population growth concerns the micro-level consequences of declining family size in those countries where such declines are occurring rapidly (e.g., Thailand). The payoff of this kind of research would be to (1) avoid any backlash due to the negative effects on families of having few children, and (2) document the positive effects of small family size (on health, education, etc.).

Another specific objective should be to identify the social problems resulting from later marriage. In this particular area, special surveys that interview single young women may produce valuable sets of data. (Particular subsets that merit attention are the cohorts of young women leaving school.) The goal again is to enable governments to deal with the problems before they become too serious. These kinds of research topics can best be studied with small-scale surveys involving specialized samples.

2.4 Other Issues

A number of issues, some of them touched upon earlier in this summary, were raised by participants during the course of the meeting. Primary among these were the use of data to influence policy makers, the importance of country- or region-specific decision making about data collection and analysis approaches, the need for training, the concern for an archive function for the WFS and other surveys, and the conduct of cost-effectiveness and cost-benefit analyses.

2.4.1 Use of Data to Influence Policy Makers

This issue was raised earlier in this summary in connection with the gathering of data on the impacts of family planning programs and on the consequences of population growth (Sections 2.3.3 and 2.3.6). While there is no conflict between this function and the gathering of data for scientific and programmatic ends, AID must nevertheless determine the mix of the various data-gathering functions, and allocate limited funds accordingly.

The first question to be asked concerning the use of data to influence policy makers is to what extent data can be expected to have an influence. In some countries with little or no family planning program effort, data on the negative consequences of population growth and the positive impacts of programs (on fertility, health/mortality, and economic development) may be influential, particularly if based in the country or region of interest. For this reason, it was suggested that AID make some investment in data collection and analysis in countries undergoing important demographic changes, but not currently on AID's list of countries of interest for providing population program and policy support. It was also suggested that project budgets should provide support for the dissemination of findings among policy makers and administrators. On the other hand, it was cautioned that, at least for sub-Saharan Africa, data solely oriented to demographic growth are not sufficient to influence policy making; there is a need for data on the relationships between population growth and development, and, in particular, on the relationships between family planning programs and

health effects. The question was also raised of the extent to which recent changes in African population policy can be traced to the influence of data on policy makers; partly because there is no clear answer to this question, UNFPA always allocates most resources to program activities, and a minimum to data collection and analysis. It was also noted that demographic data collection should be continued where programs are in place and working so that program impacts can be determined.

Finally, participants observed that there is no dichotomy between scientific research and the use of data for policy purposes. Rather, policy research must be based soundly in scientific methods. Concern was also expressed that the demographic community not be bound by program and policy objectives in all of its data collection and analysis efforts, that it be able to go beyond the procurement (RFP) system and be more creative and flexible. AID representatives noted that AID procedures permit room for flexibility, such as unsolicited proposals, and that, within the RFP mechanism, AID encourages creativity.

2.4.2 Importance of Country- or Region-Specific Decision Making

This issue was raised repeatedly over the course of the meeting, in relation to almost all of the other topics and issues discussed in this summary. Notably, it was an important part of the discussion of surveys, particularly as regards their use for baseline versus monitoring purposes: often the former will be appropriate in countries or regions without programs, and the latter where programs already exist. (However, the type of survey may vary, whether for baseline or for monitoring purposes. For example, an appropriate baseline demographic/fertility survey may be a three-round survey with a detailed fertility history collected from a subsample of women during one round.) Again, it was noted that in some areas, such as Africa, basic demographic data are lacking and are a priority need; in other areas, data needs will be different. It was also suggested that data collection and analysis priorities should be related to the needs of countries and regions as they perceive them.

This emphasis on the particular needs of different countries and regions was also expressed when participants were asked, toward the end of the meeting, to recommend and rank various priorities for AID activities (see Section 3, Tables 3 and 4). Several participants qualified their rankings by noting that their answers were applicable only on a country- or region-specific basis.

2.4.3 Need for Training

This was another theme that echoed through most of the discussion. It was suggested, for example, that the U.N. is a net consumer rather than a net producer of demographic manpower, and that it is essential to both

train individuals and develop institutional channels for the collection and analysis of demographic and family planning data. It was recommended that AID and UNFPA provide increased support for these activities. The issue of training also arose in connection with the enhanced use of microcomputers as a data collection and analysis tool, with respect to training both in the U.S. and other countries (see Section 2.2.1). Other areas requiring training were noted as well; these included training program managers in the development of useful service statistics systems that provide valid information, as well as in the use of available data (e.g., analysis of age and parity trends among acceptors, or the "eligible pool" question, i.e., the decline in the number of potential acceptors as prevalence increases).

2.4.4 Archive Function for the WFS and Other Surveys

Although a detailed discussion did not take place, strong concern was expressed for the preservation of the data sets and supplementary documents from WFS, as well as for similar materials from CPS and other surveys. AID representatives noted that plans to maintain the archives are being carried out, and that data from these surveys will in fact be preserved and remain available. All participants agreed that it would be a tremendous loss if the data collected and edited are not available over the years ahead.

2.4.5 Cost-Effectiveness and Cost-Benefit Analyses

It was noted that most existing cost-effectiveness and cost-benefit analyses concern the impact on fertility and/or prevalence of small-scale, specialized pilot, or experimental programs, and that replication of the results on a national scale is rarely considered. Given the present emphasis on cost-effectiveness (that is, the maximization of output for a given level of input), it becomes important to identify and reliably measure both input and output. It was suggested that program managers be trained in better record-keeping and accounting procedures (e.g., determining program expenditures per unit of time, both in the aggregate and by functional component, and identifying sources of funds, domestic versus external), and in management information systems.

3 RECOMMENDATIONS

Toward the end of the meeting, two mechanisms were used to elicit recommendations on AID priorities from participants. First, a list of points of general agreement expressed during the meeting was drawn up. These points were read out to the group, discussed, and revised accordingly. They appear as Table 2, "Points of General Agreement on AID Priorities" (note that the nine points of agreement are not listed in any priority-ranked order). The second mechanism used was a poll of participants, asking them to assign priority rankings to a list of suggested potential areas of AID activity. This list, too, was discussed and revised by participants before the scoring took place. Participants then scored each area on a scale of 1-5, with 5 representing the highest priority and 1 the lowest. To obtain a total sum for each potential area of activity, individual scores were summed. Thus, with 13 participants (2 had left by this point in the meeting), the maximum possible score is 65 and the minimum is 13. As shown in Table 3, three areas received total scores of 55 or higher: microcomputer development (especially software) - 59; archive function for WFS - 57; and monitoring family planning program outputs - 55. At the low priority end, three areas were scored under 30: evaluating family planning program impacts on economic development - 29; cost-benefit analyses of family planning versus other development work - 28; and civil registration/vital statistics systems - 23. The detailed scores are shown in Table 3.

Additional analysis of these participant rankings is possible. First, the rankings fall roughly into five groups, shown in Table 4. Note that along with the emphases on microcomputer development and the WFS archive function, most of the other activities in the two highest-priority groups are oriented toward better assessments of family planning program operations and their impacts. However, the group placed low priority on AID attention to the development or refinement of methodologies for use with family planning data.

Second, the thirteen participants in the scoring offered a range of views. For example, the score of 59 for microcomputer development at the top end of Table 3 includes one person who gave this item a score of 3, and four who scored it 4. At the other end of the rankings, no activity is at or near the minimum score of 13. Note the range of responses for the activity scored lowest (civil registration/vital statistics systems); three persons scored this activity 3, while one gave it a 4. The diversity of views on AID priorities can also be seen in many other

items. Table 3 shows that eight of the twenty-five items received at least one "vote" for each of the five possible scores, and another fourteen items received "votes" for four scores. The higher or lower total scores come about from tendencies toward the higher or lower ends of the scale, not from great consistency among participants. Thus even for activities in the high-priority category, such as the measurement of availability/accessibility, two participants gave this activity a score of only 1 or 2.

A final comment is that, although the priority groups in Table 4 are reasonably well defined by the score ranges (55-59; 48-52; 40-44, etc.), only thirteen persons scored the activities. Another group of experts, e.g., from among AID staff, might produce a different priority ranking for the activities in Table 4.

TABLE 2 POINTS OF GENERAL AGREEMENT ABOUT AID PRIORITIES^a

- (1) AID should give significant support to microcomputer applications, especially software development (also hardware support, training).
- (2) Surveys:
 - Fertility and other types of surveys are still needed.
 - AID should give priority to flexible, multipurpose surveys for management and evaluation purposes. We should apply a module concept, varying emphasis according to need being fulfilled (e.g., management, supervision, program evaluation, prevalence measures).
- (3) Censuses: AID should provide analytical technical assistance, software support.
- (4) Service statistics: For all their shortcomings, there is no complete substitute for the information they provide to program managers.
- (5) It is important to explore further the question of the health effects of family planning programs, for purposes of both influencing policy makers and improving health (e.g., effects of programs on spacing need further exploration).
- (6) AID needs qualitative studies to complement quantitative work.
Corollary: Qualitative studies should be designed in conjunction with quantitative studies.
- (7) AID needs data and analysis on the consequences of population growth, both in countries without programs (e.g., Africa, Middle East), and in those where program accomplishments are flagging (e.g., fertility decline leveling off).
- (8) AID should give significant attention to measuring the availability and accessibility of family planning services and supplies.
- (9) AID should continue efforts aimed at training and the development of analytical capabilities within countries.

^aThese priorities are not listed in ranked order.

TABLE 3 PARTICIPANT RANKING OF SUGGESTED AID PRIORITIES: SUMMARY OF INDIVIDUAL SCORES AND TOTAL SCORE

AREA OF ACTIVITY	SCORE ^a					TOTAL SCORE ^b
	5	4	3	2	1	
(No. of Persons: Total=13)						
(1) Microcomputer development (especially software)	8	4	1	-	-	59
(2) Evaluating family planning program impacts						
(a) On fertility	5	5	-	3	-	51
(b) On health/mortality	2	3	6	1	1	43
(c) On economic dev.	1	2	2	2	6	29
(3) Archive function						
(a) For WFS	8	3	1	1	-	57
(b) For CPS	4	4	1	4	-	43
(c) For other surveys	3	2	-	1	6	34 ^c
(4) Census (technical assistance & software; not recurrent costs)	1	3	3	6	-	38
(5) Civil registration/vital statistics systems	-	1	3	1	8	23
(6) Family planning program monitoring						
(a) Inputs	4	3	4	2	-	48
(b) Outputs (prevalence, acceptors, etc.)	7	4	1	-	1	55
(c) Cost-effectiveness analysis	2	2	5	3	1	40
(7) Measurement of Avail- ability/Accessibility	5	4	2	1	1	50
(8) Surveys						
(a) WFS Type	5	3	3	2	-	50
(b) CPS Type	3	5	4	1	-	49
(c) Qualitative	1	5	4	1	2	41

Table 3 (concluded)

AREA OF ACTIVITY	SCORE ^a					TOTAL SCORE ^b
	5	4	3	2	1	
(9) Development of Methodologies						
(a) New (for family planning data)	-	2	5	5	1	34
(b) New (for demographic data)	-	2	2	7	2	30
(c) Refine existing (for family planning data)	1	2	7	3	-	41
(d) Refine existing (for demographic data)	2	1	4	4	2	36
(10) Research on Demand/Unmet Need	4	1	5	2	1	44
(11) Service Statistics						
(a) For inputs	5	1	5	2	-	52
(b) For outputs	4	1	4	3	1	43
(12) Cost-Benefit Analyses of Family Planning vs. Other Development Work	-	2	2	5	4	28
(13) Development of Institutional Capabilities	4	5	1	2	-	51 ^c

a) Scoring system:

 5 = highest priority

 1 = lowest priority

b) Sum of the individual scores by the 13 participants

c) Total score adjusted for one participant not voting on this item.

TABLE 4 SUMMARY RESULTS OF PARTICIPANT RANKING OF SUGGESTED AID PRIORITIES

<u>Priority Level</u>	<u>Activity</u>	<u>Total Score</u>
Highest (Total sources of 55 and over)	Microcomputer development (especially software)	59
	WFS archive function	57
	Monitoring family planning program outputs	55
High (Scores of 48-52)	Service statistics for inputs	52
	Development of institutional capabilities	51
	Evaluating family planning program impacts on fertility	
	Measurement of FP availability/accessibility	50
	WFS-type surveys	50
	CPS-type surveys	49
	Monitoring family planning program inputs	48
Moderate (Scores 40 40-44)	Research on demand/unmet need	44
	Service statistics for outputs	43
	Evaluating family planning program impacts on health/mortality	43
	CPS archive function	43
	Qualitative surveys	41
	Refine existing methods for family planning data	41
	Family planning cost-effectiveness analysis	40
	Census	38
	Refine existing methods for demographic data	36
Low (Scores of 34-38)	Develop new methods for family planning data	34
	Archive function for other surveys	34
	Develop new methods for demographic data	30
Lowest (Scores of 23-30)	Evaluate FP program impacts on economic development	29
	Cost-benefit analyses of FP vs. other development work	28
	Civil registration/vital statistics systems	23