9520547 (2)
PD-AAC-181-B1
36p

# WORLD FERTILITY SURVEY

*PROPOSAL TO:*

Research Division

Office of Population

Agency for International Development

Washington D.C.

*submitted by the*

*INTERNATIONAL STATISTICAL INSTITUTE*

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| **Name and address of the organization submitting the proposal:** | International Statistical Institute<br>2 Oostduinlaan<br>The Hague, The Netherlands<br>Tel. (070) - 18.42.70 |
| **Date of submission:** | December 21, 1971 |
| **Type of organization:** | International non-profit organization |
| **Brief descriptive title of the proposed research:** | World Fertility Survey |
| **Principal Investigator:** | International Statistical Institute |
| **Institutional officials authorizing the research proposal:** | The Bureau of the International Statistical Institute:<br>P.J.Bjerve (President)<br>E.Alanís Patino (Vice-President)<br>P.A.P.Moran (Vice-President)<br>L.A.M.Vessereau (Vice-President)<br>A.I.Yezhov (Vice-President)<br>J.Ch.W.Verstege (Secretary General)<br>M.G.Kendall (Treasurer) |
| **Official authorized to bind the institution contractually:** | E.Lunenberg, Director of the Permanent Office, International Statistical Institute |

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## Summary

The World Fertility Survey (WFS) proposed in this submission, is conceived of as a major international research program to be conducted in conjunction with the World Population Year in 1974.

The WFS is to be an international scientific movement with

(i) the general purpose to assess the current state of world knowledge concerning fertility and family planning and to promote new, nationally representative, internationally comparable sample surveys in as many countries of the world as possible;

(ii) the specific purpose to promote through technical assistance, selective subsidization and voluntary country co-operation, individual country surveys on the part of national statistical agencies or other competent research institutions in some thirty to forty key developing countries.

In particular in the less developed countries of the world there is a lack of systematic scientific knowledge concerning differential fertility, reproductive norms and family planning practices. Provision of such knowledge would enable policy makers to formulate more effective population policies and to understand the dynamics of their countries' population in relation to other nations.

The WFS will enable the Governments concerned to acquire technically sound knowledge on the fertility and reproductive behavior of their populations, to develop survey techniques and organizational capacity for demographic and other social science research, to train national personnel in statistical and research aspects of fertility research, and to institutionalize fertility research as a major component of their demographic and social science research apparatus.

The International Statistical Institute (ISI) will be the major organizational agent for carrying out the WFS. The ISI will provide a central WFS staff of scientists of internationally recognized competence in the areas of fertility and sample surveys and will be responsible for a high scientific and technical standard of the program while ensuring that the WFS is developed and carried out on a truly internationally basis.

The support for the WFS from a wide spectrum of donor agencies will be sought.

# A PROPOSAL FOR A WORLD FERTILITY SURVEY

## A. INTRODUCTION AND BACKGROUND

### 1. The Need for a World Fertility Survey.

Questions of reproductive norms, family planning motivation and contraceptive behavior are crucial when studying and explaining observed fertility differentials and similarly when developing action programs designed to meet specific policy objectives.

Information on fertility differentials and determinants can only be obtained by means of special surveys. Many attempts to do this have already been made; sometimes in the form of a comparative fertility survey, more frequently in the form of a survey on knowledge, attitude and practice of family planning, a so-called KAP survey. Approximately 55 fertility surveys have been carried out between 1965 and 1971 and some twelve or thirteen surveys are currently underway or are known to be in the planning stages. A brief listing of these surveys based on information supplied by Dr. Macura, may be found in Appendix I.

The number of KAP studies is considerably larger. Some 150 "major" studies are listed by the Population Council (see Appendix II). They cover a time span of 25 years or more and have been carried out in all major regions of the world. KAP surveys are not usually concerned with an entire nation's population. Their emphasis is on family planning, with less attention devoted to fertility behavior as compared with comparative fertility surveys.

The large number of KAP surveys and comparative fertility surveys referred to above give the impression of much work already accomplished. Unfortunately, this impression is deceptive. A number of deficiences are present in these studies. First, some of the surveys are now outdated and do not provide the information essential for national policy and program formulation in the 1970's. Second, the quality of the studies is extremely uneven. In some cases, sampling procedures have not been adequate; for others, high response error has been found to limit the usefulness of the data severely. Even more fundamental, in some surveys the data have been collected but never tabulated or published. Third, many surveys, such as some cited for Latin American countries, are of limited geographical coverage and do not yield results applicable to a country as a whole.

Even allowing for the foregoing limitations, there are more important considerations which curtail the usefulness of existing comparative fertility and KAP surveys. The first of these considerations is the fact that no attempt has been made to tackle the admittedly, difficult task of establishing systematic international comparisons on a worldwide basis for this body of data. Not even exhaustive regional comparions have thus far been made although CELADE has used the survey returns from some Latin American countries rather extensively and ECE is in the midst of analyzing returns from twelve countries. For the world as a whole, however, and for most of its major regions, the state of knowledge concerning fertility has not been assessed. This lack particularly of comparative knowledge means that policymakers cannot compare their country's population growth with that of other countries with similar socio-economic characteristics.

A second consideration is also of crucial importance. The majority of KAP surveys and perhaps an equally large number of national fertility surveys have been carried out by independent agencies or research institutes. By and large, the surveys have not been an integral activity of the national statistical agencies. Until such time as the official national statistical agencies - usually closely identified with national planning agencies - become involved in research into the fertility and family planning behavior of their populations, it is unlikely that results of fertility surveys will be directly linked to the policymaking apparatus of nations, and thus eventuate in more effective policy and program designs for coping with rapid population growth. There is need, then, for a new phase of institutional development, particularly in the less developed nations of the world, in which fertility research will be incorporated into the official statistical agencies of countries throughout the world.

The United Nations has named 1974 as World Population Year and has called upon the world's scientific and policymaking communities to focus special attention on world population conditions at that time. It seems altogether consistent with the spirit of the World Population Year that a major international research program be launched aimed at achieving for the first time in human history, a nationally representative, internationally comparable, scientifically conducted inquiry into the fertility and family planning behavior of the world's populations, a research program with the immediate aim of obtaining accurate knowledge of world fertility and the long run aim of institutionalizing fertility research within the demographic and social science research capabilities of the nations of the world. Such a program would be directly consistent with the recommendations of the UN Population Commission which, at its sixteenth session (Geneva, 1 to 12 November, 1971), particularly urged attention to fertility differentials on an internationally comparable

basis. Such a program would be the World Fertility Survey.

## 2. An Overview of the World Fertility Survey.

The World Fertility Survey (WFS) is conceived of as a major international research program, to be conducted in conjunction with the World Population Year in 1974, aimed at providing sound scientific knowledge concerning fertility and at assisting countries in developing the institutional and manpower resources for continued assessment of their fertility in the future.
Essentially, the WFS would consist of as large a number as possible of specially designed, sophisticated sample surveys in all major regions of the world which would be based upon a substantive and methodological inventory of existing surveys and which would be coordinated and analyzed on a comprehensive, systematic and comparative basis.

The goal of the WFS is to carry out a world fertility survey: that is, to elicit participation from all nations. While it is recognized that every country in the world cannot be expected to participate, nevertheless universal participation is the ideal. The keystone to an undertaking so ambitious as the WFS must be individual country responsibility. In het last analysis, the persons who must carry out the survey and the persons who must profit from the survey are the scientists and policymakers within individual countries. In this respect, the WFS represents a concerted attempt to launch an international scientific movement which will elicit the active voluntary participation of all countries. Support for the WFS must be solicited from the key figures and organizations within the world population community. Auspices for the WFS must be genuinely international and genuinely scientific.

If international comparability is to be a characteristic of the WFS, then a second keystone must be the unitary aspect of all surveys. Procedures must be designed and adhered to for unified sampling frames, for a single prototypic questionnaire, for uniform methods of interviewing, coding, editing, tabulating and analyzing. Only through careful attention to uniformity in all facets of the survey can valid cross-national comparisons be attained.

To stimulate a large number of sample surveys of unitary design, all being carried out in rough simultaneity to the World Population Year, it would be insufficient to rely solely on the voluntary cooperation of individual countries. Many countries, particularly in the less developed areas of the world, cannot mashal the financial, manpower, and organizational resources to undertake such a survey within so short a time span, even should they be willing. Consequently, the WFS will need to be

so structured as to offer subsidization of country activities in those regions and at those points which are critical for success. As here conceived, the WFS would be prepared to offer the following kinds of selective subsidies for participating countries: (a) technical expertise in sample design, questionnaire construction, electronic data processing, tabulation and analysis; (b) training programs both for professionals who would oversee country surveys and for interviewers within countries who would collect the data, (c) publications of findings, (d) national or regional conferences at which findings would be presented and interpreted, and (e) small research grants for further post-survey analysis of data.

In addition to the provision of new internationally comparable knowledge of fertility in coordination with the World Population Year, a secondary goal of the WFS is to institutionalize fertility research within the nations of the world. This means that the target agencies for carrying out the surveys within individual countries will be the official statistical agencies. In many cases, of course, it will be neither appropriate nor feasible to approach official agencies. Yet the ideal will be maintained, for it is felt that in the long run fertility research can have its impact on national policies and programs only when it becomes an integral part of the process by which those policies and programs are evolved. Similarly, the long run aim of the WFS will be to institutionalize itself in such a manner that fertility surveys will be routinely carried out throughout the world during future intercensal periods (every tenth year after 1975).

The major organizational agent for carrying out the WFS will be the International Statistical Institute (ISI). ISI, with headquarters in The Hague, Netherlands, is an old (founded 1885) and internationally respected association of scientists whose ex officio members are the directors of national statistical agencies and whose other membership consists of statistical scientists of sufficiently recognized stature as to be elected to ISI. A precedent exists for ISI's involvement: the Inter-American Statistical Institute (IASI), a sister organization of ISI, was the principal organizational agent for carrying out the Census of Americas in 1950. ISI is an official consultative organization to the United Nations and is affiliated to the principal national and international organizations in the fields of statistics and population.

ISI will establish a separate WFS project organization at The Hague, and from this organization the worldwide activities of the WFS will be coordinated and directed. In addition to soliciting support of the WFS from its own membership and the worldwide scientific community, ISI will

oversee the assembling of international expertise for the design, planning and coordination of surveys.
The latter will include determination of sampling principles, the design of a prototype questionnaire, provision of standards for training of personnel who will carry out surveys, development of standard procedures for coding, editing and punching at collected data, estblishment of uniform sets of tabulations, provision of pre-packaged computer software, and guidelines for analysis and publication of results.

ISI considers that a world fertility survey would be a significant contribution to the knowledge on population, development of which has been urged by the UN Population Commission at its sixteenth session (1971) and would also be a highlight in World Population Year, 1974, on which decision was taken by the UN General Assembly at its twenty-fifth session (1970).
Since the WFS would fit in the World Population Year program recently recommended by the Population Commission it is anticipated that a formal recommendation of approval for the WFS will be forthcoming from the Commission during its next session (June, 1972).

The foregoing may be summed up with a definition, though somewhat lengthy, of the WFS:

> The World Fertility Survey is an international scientific movement whose general purpose is to assess the current state of world knowledge concerning fertility and family planning and to promote new, nationally representative, internationally comparable, scientifically designed and conducted sample surveys of fertility and family planning in as many countries of the world as possible; and whose specific purpose is to promote through technical assistance, selective subsidization and voluntary country cooperation individual country surveys on the part of national statistical agencies or other competent research institutions in some thirty to forty key less developed countries.

## B. SIGNIFICANCE TO AID OBJECTIVES

The WFS is significant to AID objectives in at least four respects.

First, the WFS is a major undertaking in international scientific cooperation. It will fulfil objectives set forth by the United Nations Population Commission at its November, 1971, meetings and will be directly consistent with the aims of the

World Population Year. Cooperative international endeavors are of importance to the objectives of AID.

Second is the comparative knowledge of fertility and family planning. The WFS will provide to policymakers (a) a scientifically based body of knowledge concerning the levels and patterns of fertility for a representative sample of their populations as well as their populations' family planning behavior, and (b) a basis for comparing their fertility and family planning with the fertility conditions in countries similar to their own. The provision of such knowledge to policymakers particularly in less developed countries will be a major step toward formulation of more effective population policies and programs and as such is highly consistent with AID's mandate in the field of population.

Third, the WFS results will be of operational significance. For example, findings will reveal motivation, usage patterns, and relative success of different contraceptive methods, or will indicate which subgroups of the population are not being reached by existing programs. As the Growth of American Families studies have shown, such findings are by no means "obvious", particularly as regards their extent and persistence over time. These findings will be of utility to AID's assistance programs for family planning programs.

Fourth, the WFS has as one of its goals institutional development. The WFS will assist countries in training manpower and developing the organizational capabilities for continuous assessment of fertility levels and family planning practices long after the 1970's. This development of manpower and institutions will have beneficial effects on other demographic and social science research efforts within the countries. Institutional development is an additional aspect of the WFS which is significant to AID objectives.

## C. DETAILED DESCRIPTION OF THE STUDY

### 1. Detailed objectives of the WFS.

The overall conception of the WFS has been treated in preceding sections. In particular, it is understood that the general purpose of the WFS is to be a world survey. However, the developed countries of the world can be expected to command sufficient resources of their own for supporting a country survey. Consequently, the focus of the remainder of this proposal is upon the specific purpose of the WFS, i.e. the conducting of surveys particularly in key less developed nations.

ISI will offer to developed countries the uniform methodologies and designs which are developed as part of the WFS. To the extent possible, consultative services will also be provided to developed countries which wish to participate. The critical needs for trained expertise, organizational capacity and financial support, however, will be in the less developed countries of the world. It is in these areas that the WFS will concentrate the majority of its human and materials resources.

Given the foregoing understanding, the detailed objectives of the WFS are:

(a) To carry out a comparative international and regional analysis of fertility levels and patterns and of family planning behavior, based on existing fertility surveys and the new surveys to be launched as a component of the WFS;

(b) to develop, to the extent possible, uniform methodology for fertility and family planning surveys and to test on a comparative scale new survey techniques;

(c) to assist interested governments in:

(i) acquiring technically sound knowledge of fertility and family planning behavior which may be used as the basis for population policies and programs;

(ii) developing survey technology and organizational capacity needed for fertility research as well as other demographic and social science research;

(iii) training national personnel in statistical and survey research aspects of fertility research; and thus

(iv) institutionalizing fertility research as a component of their demographic and social science research;

(d) to document and disseminate information and major findings of the WFS to the countries involved, in the regions, and at the international level.

2. Strategy for the WFS.

(a) Planning activities

The first activity of the WFS will be a planning phase of operations. During this phase, the support of key figures and organizations throughout the world will be sought for the new surveys to be launched. Ideally some five to ten persons of recognized international stature in the fields of population and statistics would begin traveling to between fifty-five and sixty-five countries to ascertain the degree of interest in a

WFS on the part of scientists and policymakers within the countries and, should there be strong interest, which country organizations would be appropriate for carrying out the survey. In addition, ISI would seek through its membership, and in particular its members in senior government positions broader financial and organizational support for the survey from United Nations agencies and from the development assistance agencies throughout the world whether governmental or private. It may be mentioned, that planning has already begun for an early meeting of technical experts who will consider methodological issues for the WFS (see below). ISI is making an application to a separate donor agency to develop this activity.

(b) Initiating activities

The first initiating activity of the WFS will be to make an inventory of existing national fertility surveys and KAP surveys. The contents, sample designs, coverage, validity, reliability, tabulation procedures and publications of the national fertility surveys in particular will have to be compared and assessed. An inventory of the fertility surveys would involve the convening of a working group of international technical experts who are knowledgeable concerning the surveys. This working group, probably small in numbers and convened rather soon, would decide the extent to which existing surveys are of real value for the WFS. If there appeared to be much valuable, underutilized material in existing surveys, a separate subproject would be launched for acquiring data from existing surveys and for undertaking new, comparative analyses of these data.

As regards KAP surveys, the Population Council has collected and published a large number of questionnaires while it has also published a manual for such surveys (New York, 1970). It is further understood that AID is developing a project to draw together the raw data from all available major KAP studies, to standardize these data for comparability and to re-disseminate them for comparative research.
The WFS will coordinate its inventory-taking activities with the AID-sponsored project for drawing together KAP surveys.

In conjunction with its stock-taking activity, the working group will develop a prototype questionnaire for which it can use a recent effort of the International Union for the Scientific Study of Population i.e. "Comparative Fertility Surveys: Variables and Questionnaires" (United Nations 1971) as a base, initiate a study of appropriate sampling designs, develop fieldwork instructions, determine uniform procedures for editing and coding of returns and also report on the training to be given to survey staff and interviewers.

As a guidance to the promotional work mentioned in the previous section the working group will also indicate which countries would be specially important for new surveys under the WFS and how and where the pre-testing of the questionnaire, fieldwork, tabulation, and analytical procedures should be undertaken.

It is expected that the working group will develop within the prototype questionnaire three lists of questions, which may be designated as:

(i) Standard Core List, which would contain the items to be included in all surveys. In this list all essential aspects of fertility and family planning would have to be covered.

(ii) Regional Expanded List, which would contain items relevant to the characteristics of the region to which a country belongs. It would also be possible here to take account of the extent to which fertility research in each specific region has been conducted and evaluated.

(iii) Country Specific List, which would contain items that are either largely experimental or of particular interest to a specific country. A prototype would of course leave this latter list as something for individual countries to work out.

After ISI has received reports concerning the interests of the fifty-five to sixty-five countries visited during the planning phase, a second initiating activity would be launched. This would consist of calling an international WFS planning conference for those key individuals in the various countries which are interested in participating whether they be heads of research institutes, directors of statistical agencies or other governmental and scientific figures. The WFS planning group would be called together annually throughout the course of the fertility surveys for the purposes of assessing progress, discussing difficulties and reporting results.

(c) WFS Country Surveys

Although the WFS aims at world coverage its principal set of activities will lie in the initiating of fertility surveys in some thirty or forty developing countries which would not otherwise marshal the resources. The strategy for accomplishing these surveys in the desired manner envisions a twofold concentration of resources: first, a central professional staff of internationally recognized technical experts who will oversee the general design of the WFS, insure uniformity and comparability among individual country surveys, and make continuously available expert technical consultation for individual countries; and second, a broad program of technical assistance and subsidization for individual country operations

with primary emphasis on training of national personnel for rigorous scientific conducting of fieldwork and preparation and analysis of results.

ISI will develop a separate project organization to have overall responsibility for the WFS. The structure of this organization is described in the following section. In general, it is a centralized structure for centralization of functional direction for the WFS is felt to be essential if results are to be truly comparable across international boundaries.

Individual country responsibility is an essential keystone for the success of the WFS. In general, therefore, within-country costs must be born by the countries themselves, although ISI will offer a broad program of selective subsidies. When a country agrees to participate in the WFS, ISI will request that they concur in a "basic agreement" governing their country survey, and the country will be asked to submit a schedule of grant assistance required for carrying out the survey. Participating countries will be asked to appoint a national survey director, a competent scientist who is native to the country. Individual country directors and their deputies will be given extensive training under programs developed by the central WFS professional staff. Within countries, the national directors, assisted when necessary by other host nationals and foreign experts, will carry out training programs for the interviewing staffs of the survey teams. National directors will also be responsible for coding, punching and editing the interview returns according to uniform procedures.

Countries will be expected to carry out their own tabulations and analysis of data collected. As part of the basic agreement the WFS central professional staff will be provided with a standardized set of tabulations for international comparisons and with a copy of the data set generated in a form suitable for more refined tabulation and cross-national study. For countries which are unable to carry out their own data analysis, the WFS will assist and subsidize these activities. Publication of results will be an important area for subsidization, as will financing of national conferences at which results are presented and interpreted. ISI may also sponsor regional conferences to discuss WFS findings.

All participating countries will be encouraged to have survey activities in full process by 1974, the World Population Year, that is, beyond the planning stages and into full operations. Hopefully, some countries will be able to report preliminary results during World Population Year conferences and activities.

Final reporting on the surveys at the world, regional, and when necessary the national level will be the responsibility of the

central professional WFS staff. This reporting will take the form of technical papers, published volumes and international scientific conferences.

3. Organization of the WFS.

The International Statistical Institute will have overall organizational responsibility for planning and carrying out the WFS and the headquarters of the WFS will be at ISI offices in The Hague, the Netherlands. In order to accomplish the WFS, ISI will set up a separate project organization whose major components will be as follows:

(a) Governing Board

The governing board will be entrusted with overall substantive guidance and review of the WFS. The governing board will consist of members with representation chosen from the ISI, the International Union for the Scientific Study of Population (IUSSP), the United Nations and other appropriate organizations. It is suggested that the governing board's numbers be kept small and that they meet twice a year.

(b) Technical Advisory Council

The technical advisory council is conceived of as a permanent scientific resources body upon which the WFS staff can draw for a wide variety of consulting expertise in survey research and fertility topics. The council's members will be official consultants to the WFS and may be asked to serve as short term consultants to individual countries or to the central professional staff.

(c) WFS Project Organization

The project organization will consist of:

(i) Administrative Staff. The ISI will provide the WFS with an administrative staff. The administrative staff will recruit personnel for the WFS, arrange conferences and seminars, have charge of the WFS publications programs, arrange basic agreements with participating countries, administer a grant program for subsidizing country surveys on a selective basis, and in general perform as a service agency to the central professional staff (including, for example, provision of translation services, arranging of traveling, bookkeeping, etc.).
Preliminary arrangements have been made for locating the administrative staff at the ISI Permanent Office in The Hague.

(ii) Director. The ISI will recruit a person of internationally recognized stature in the field of population for the position of Director for the WFS. The Director will be the key individual for planning and directing all phases of the WFS. ISI has already identified such a person, Dr. Milos Macura, immediate past Director of the UN Population Division and currently a staff member at the Ekonomski Institut in Belgrade, Yugoslavia. ISI will enter into an agreement with Dr. Macura and the Ekonomski Institut whereby Dr. Macura will be made available for direction of the WFS.

(iii) Central Professional Staff. The central professional staff will consist of the Director of the WFS and four to five fulltime experts in sampling, questionnaire construction, survey research techniques, electronic data processing and fertility research. In addition to this core staff, some eight to twelve consultants will be made readily available for individual country assignments. Primary responsibility for technical aspects of the WFS will reside with the central staff, although they may make frequent use of the technical advisory council. ISI will make arrangements for location of the central professional staff and is investigating whether the Ekonomski Institut could be the host organization.

(iv) Country Organization. As mentioned, ISI will explore the interests of appropriate organizations within individual countries who may participate in the WFS. ISI can do this to a large extent through communication with its ex officio and other members. Each participating country will be asked to appoint a national director to work with a national survey agency. Preference will be given to official statistical agencies. The national director will attend training programs developed by the central professional staff and will in turn conduct a training program within his country with respect to interviewing, coding, punching, editing, tabulating, analyzing and reporting on the survey.

4. Recruitment of Personnel.

The WFS is conceived of as a major international undertaking in the field of population. Its success will depend to a large extent on the quality of personnel who can be recruited to carry out the work. ISI will undertake to recruit for the WFS the finest scientific talent available in the world in the fields of population and survey research. Recruitment will be international in character, with the primary criterion being that of established scientific competence. A secondary criterion may be recruitment of personnel whose participation might enhance the cooperation of key countries.
Given the conception of the WFS, it is understood that

recruitment of the personnel desired will not be a simple matter. Individuals of the type the WFS seeks are persons who have great demands on their time and talents and who are well compensated. Consequently it is felt that ISI will need to be able to offer competitive salaries.

5. Cost Sharing.

In general, it is felt that within-country costs of the survey should be born by the participating country itself. Obviously this principle will vary a great deal in application, and the WFS will be prepared to grant subsidization on a selective basis. In fact, the WFS will already be subsidizing country efforts through the technical work of the central professional staff. As previously mentioned, countries may apply to the WFS for subsidization in the form of grants under the general headings of (a) technical consultation, (b) training programs, (c) publications, (d) conferences, and (e) small research grants for additional analysis. In addition, a special category of "exceptional cases" will be set up for situations in which an additional financial input on the part of ISI may make a critical difference in a country's successful participation.

6. Timing.

The WFS is designed as a five year project, beginning in mid-1972. Planning activities should already have been carried out and the meeting of technical experts convened prior to the beginning of the full scale WFS. The peak of WFS activity is envisioned to be the years 1974-1975, when countries will be expected to be in full operational stages of their surveys. WFS activities will continue until mid-1977, by which time the great majority of country surveys should have been completed, data analyzed, reports published and conferences held. For the long run, it is hoped that the intensive activities of the WFS in connection with the World Population Year will result in comparative international fertility surveys every tenth year after 1975.

7. Training Programs.

Training programs for the WFS are conceived on two levels. First, there will be training for the national directors of individual country surveys. Secondly, there will be within-country programs in which the national director and his staff will train the lower echelon members of survey teams.

At the first level, it is planned that training courses would be needed to instruct national directors and some of their staff in all aspects of the survey: sample design specific to the country, questionnaire matters specific to the country, training of interviewers, supervision of interviewers, procedures for coding, punching and editing, and computer techniques for tabulation and analysis of data. The latter item would include instruction concerning tabulation which all surveys would prepare and the application of pre-packaged computer programs which the central professional staff would make available.

At the country level, national directors will conduct training programs, assisted by foreign experts when necessary. These programs will assure that sample selection conforms to standards set forth by the WFS staff; they will provide also for usage of uniform questionnaires. In particular, extremely careful attention will be given to training and supervision of interviewers, the key element for obtaining valid and reliable data. The same careful attention will be devoted to coding, punching and editing of data. This will insure that the information will be transmitted back to the WFS staff in a uniform format from throughout the world.

8. Publications Programs.

In addition to subsidizing individual country efforts in publication, the WFS will undertake a publications program of its own. In the promotional field, a newsletter and brochure on the WFS will begin production as soon as possible. In the technical field, the reports of the technical working group and of other conferences and seminars held during the life of the WFS will be issued in a series of technical papers. Finally, at the conclusion of the WFS, there is planned a major series of published volumes which will report exhaustively on what is then known concerning world fertility and family planning practices.

## D. STATUS AND MEMBERSHIP OF THE INVESTIGATING ORGANIZATION

The International Statistical Institute (ISI) is a professional society "devoted to the development and improvement of statistical methods and their application throughout the world".

ISI is an independent non-profit organization, founded in 1885. A Permanent Office was set up in 1913 and is located at The Hague, The Netherlands. Recently steps have been taken toward incorporation of the ISI as a non-profit learned society according to the law of the Netherlands. In addition, a separate ISI Research Foundation is being founded under Dutch law which is expected to be legalized in early 1972.

The ISI members who have gained worldwide recognition in their field, represent more than eighty countries and international organizations. There are at present 518 ordinary and honorary members. They work in Government, universities, research organizations, industry and international agencies. The members' fields of interest cover the whole range of the theory and application of statistics.
In addition, the directors of 91 national and of 15 international statistical agencies are ex officio member of the ISI.

Ten international societies and nineteen national statistical associations are affiliated to the ISI.

The Institute has established three sections to promote the objectives of the ISI in particular fields of statistical specialization, namely:
International Association of Municipal Statisticians;
International Association for Statistics in the Physical Sciences;
International Association of Survey Statisticians.

Throughout its history the ISI had made pioneer efforts to further statistical activities which were subsequently institutionalized and continued under government and intergovernmental auspices. Examples are the collection and compilation by the ISI Permanent Office in the period 1917-1939 of international demographic data in the "Annuaire International de Statistique" and other series, which were the predecessors of the UN demographic publications. The "International Classification of Causes of Death" was initiated and periodically revised by the ISI; the periodical revisions have been continued by the World Health Organization.
In the early 1950's the ISI started statistical education in international centres in developing countries which has now become the concern of the UN and other intergovernmental agencies, as well as national governments.

The Institute carries out its primary function through the biennial conferences of its members and other prominent statisticians. The meetings are generally recognized as the main international forum for the exchange of information, experience and research findings. The proceedings of these sessions are published in the "Bulletin of the ISI". ISI activities further include the publication of the journal "Review of the ISI"; an abstracting service which publishes "Statistical Theory and Method Abstracts"; and a program of bibliographical services including standard reference manuals and training guides for professionals and students. International statistical training centres have been established in Calcutta and Beirut in the framework of an international education program which is operated under the auspices of and with support from UNESCO. In this program ISI supports the teaching

of statistics by such activities as organizing round table meetings of experts in this field, in particular oriented to the developing countries.
In the International Municipal Statistics Program statistics of the world's large cities are collected and published, while research is promoted on aspects of urban statistics.

The administrative body of the ISI is the Bureau. The present officers are:

P.J. Bjerve (President), Director General, Central Bureau of Statistics, Oslo, Norway.

E.Alanís Patino (Vice-President), Director of Industrial Research, Bank of Mexico, Mexico City.

P.A.P. Moran (Vice-President), Professor of Statistics, The Australian National University, Canberra, Australia.

L.A.M. Vessereau (Vice-President), Professor of Statistics, University of Paris, France.

I.A. Yezhov (Vice-President), Deputy Chairman, Central Statistical Organization, Moscow, USSR.

J.Ch.W.Verstege (Secretary-General), Director General, Central Bureau of Statistics, The Hague, Netherlands.

M.G. Kendall (Treasurer), Chairman, Scientific Control Systems Ltd., London, England.

The immediate past President of ISI is W.G.Cochran, Professor of Statistics, Harvard University, Cambridge, USA.

The Director of the ISI Permanent Office is E.Lunenberg at the address: 2 Oostduinlaan, The Hague, Netherlands (Tel. 18.42.70 - cable: Statist).

Short biographic sketches of the President, the Secretary General and the Treasurer of ISI, the Director of the Permanent Office and of M.Macura, are given in Appendix III.

Reference.

Nixon, J.W. A History of the International Statistical Institute 1885 - 1960. The Hague, 1960. VIII + 188 p.

## E. BUDGET OF THE WFS.

The budget estimates for the WFS are presented on page 20. This budget provides estimates for each of the years 1972-1975 and for their total, and more tentative figures for the period 1975 - 1977.

## BUDGET ESTIMATES FOR THE WORLD FERTILITY SURVEY

| | 1972-73 | 1973-74 | 1974-75 | Total 1972-75 | Estimate 1975-77 | Grand Total |
|---|---|---|---|---|---|---|
| | (in thousand dollars) | | | | | |
| **I. CENTRAL ORGANIZATION** | | | | | | |
| **Staff requirements** | | | | | | |
| Director & Professional Staff | 180 | 190 | 200 | 570 | 430 | 1,000 |
| Administrative, Legal & Financial Staff | 78 | 82 | 87 | 247 | 189 | 436 |
| Publications Staff | - | 7 | 31 | 38 | 68 | 106 |
| Supporting Staff | 89 | 108 | 115 | 312 | 252 | 564 |
| Fringe benefits & Allowances | 110 | 125 | 140 | 375 | 300 | 675 |
| Provision for house-moving and home leave | 20 | 5 | 5 | 30 | 10 | 40 |
| Free-lance and other personnel | 50 | 50 | 50 | 150 | 100 | 250 |
| Staff recruiting costs | 5 | 5 | 5 | 15 | 5 | 20 |
| | 532 | 572 | 633 | 1,737 | 1,354 | 3,091 |
| **Travel** | | | | | | |
| Professional Staff | 40 | 40 | 40 | 120 | 75 | 195 |
| Other Staff | 10 | 10 | 10 | 30 | 20 | 50 |
| Governing Board | 10 | 10 | 10 | 30 | 20 | 50 |
| Advisory Council | 20 | 20 | 20 | 60 | 40 | 100 |
| ISI Director | 5 | 5 | 5 | 15 | 10 | 25 |
| | 85 | 85 | 85 | 255 | 165 | 420 |
| **Office requirements** | | | | | | |
| Accommodation & Facilities | 30 | 30 | 30 | 90 | 60 | 150 |
| Equipment & Furniture | 40 | 5 | 5 | 50 | 5 | 55 |
| Postage, Telegrams, Telephone, Telex | 20 | 22 | 24 | 66 | 50 | 116 |
| Office supplies | 15 | 16 | 17 | 48 | 35 | 83 |
| | 105 | 73 | 76 | 254 | 150 | 404 |
| **Promotion & Publications** | | | | | | |
| Travel of promotion team | 20 | - | - | 20 | - | 20 |
| International WFS Planning Conference | 100 | - | - | 100 | - | 100 |
| Continuous promotion activities | - | 15 | 15 | 30 | 20 | 50 |
| Interim Publications | 25 | 25 | 25 | 75 | 50 | 125 |
| | 145 | 40 | 40 | 225 | 70 | 295 |
| **Construction and Pre-testing of a prototype questionnaire and instructions** | 50 | - | - | 50 | - | 50 |
| **Other expenditure** | | | | | | |
| Retroactive payment of anticipatory spending in early stages of the Project | 25 | - | - | 25 | - | 25 |
| Sundries | 25 | 25 | 25 | 75 | 50 | 125 |
| | 50 | 25 | 25 | 100 | 50 | 150 |
| Sub-total | 967 | 795 | 859 | 2,621 | 1,789 | 4,410 |
| Overhead (7%) | 68 | 56 | 61 | 185 | 125 | 310 |
| | 1,035 | 851 | 920 | 2,806 | 1,914 | 4,720 |
| **II. CONSULTANTS** | | | | | | |
| Consultant fees | 150 | 310 | 325 | 785 | 650 | 1,435 |
| Travel | 50 | 100 | 100 | 250 | 200 | 450 |
| | 200 | 410 | 425 | 1,035 | 850 | 1,885 |
| **III. NATIONAL PROGRAMS** | | | | | | |
| Foreign experts | - | 175 | 375 | 550 | 200 | 750 |
| Travel experts, including house-moving | - | 60 | 125 | 185 | 65 | 250 |
| International Training | - | 50 | 50 | 100 | - | 100 |
| National programs - Grants for training, publications, research and conferences | 50 | 350 | 600 | 1,000 | 500 | 1,500 |
| Total estimated cost of national surveys in 70 countries will be in the order of $ 15,000,000 | p.m. | p.m. | p.m. | p.m. | p.m. | p.m. |
| | 50 | 635 | 1,150 | 1,835 | 765 | 2,600 |
| **IV. CONFERENCE** | - | - | 125 | 125 | - | 125 |
| **V. COMPUTER SERVICES** | - | - | 50 | 50 | 250 | 300 |
| **VI. PUBLICATIONS PROGRAM** | - | - | - | - | 300 | 300 |
| **Grand Total** | 1,285 | 1,896 | 2,670 | 5,851 | 4,079 | 9,930 |

The total cost for the life of the Project, including the cost of national surveys in some 70 countries, is estimated to be in the order of $ 25 million. As the cost of carrying out national surveys will in principle be born by the countries concerned, the ISI seeks funding for an estimated total of $ 9,93 million. For the first three years of the Project the financial requirements amount to $ 5,85 million.

The ISI will invite support from governments and other appropriate organizations and will attempt to enlist as many donors as possible. A very high percentage, however, possibly 90 - 95% of the total cost, is requested as financial support from AID.

## Notes on the Budget

### Staff

The salaries of professional and other staff will have to be negotiated individually. For budget purposes the following basic salaries have been applied.

| | | |
|---|---|---|
| Professional: | | |
| Director<br>Professional staff (5) | 5 years average | $ 30,000 |
| Administrative, Legal & Financial: | | |
| Senior admin. officers (2) | 5 years | $ 20,000 |
| Legal officer | 5 years | $ 20,000 |
| Accountant | 5 years | $ 18,000 |
| Publications: | | |
| Publications officer | 3 years | $ 16,000 |
| Editor | 3½ years | $ 14,000 |
| Supporting: | | |
| Assistants (3) | 5 years | $ 8,000 |
| Secretaries (10) | 5 years | $ 6,500 |
| Secretaries (2) | 4 years | $ 6,500 |

Provision has been made for annual increments and cost-of-living adjustments (approx. 5% per annum).

Additional staff costs include fringe benefits, allowances and extra remunerations for living abroad (in total 30-35% of basic salaries.

Free-lance and other personnel include ad hoc consultations, publicity, translators, janitor, driver, switchboard, etc.

Travel

Travel expenditure for professional staff has been calculated on the basis of 2 months travel per year per staff member at $ 5,000 (travel) + $ 1,500 (per diem).

Other staff travel concerns mainly business travel of staff stationed at ISI Office in The Hague.

Office Requirements

The ISI Office will need 7-8 additional rooms, while some 15 rooms will be required for the professional centre. Equipment and furniture requirements include electric typewriters, dictaphones, desk computer, desk calculators, duplicating equipment, addressograph, etc.

Publications

Interim publications will include 6 working papers and 4 monographs per year, as well as a periodical Information Bulletin.

Consultants

It is estimated that 60 consultant-months will be needed in the first year, and 120 consultant-months in the other four years.

National Programs

Fifteen foreign experts are expected to be needed to support national surveys. The annual cost including honorarium, fringe benefits and allowances, are estimated to be approx. $25,000 per expert.

National programs are expected to be launched in some 70 countries of which 35-40 countries may assume full financial responsibility for their survey. Subsidies will be needed by approx. 30 countries.

The cost of national surveys will differ considerably from country to country. The average cost are estimated to be in the order of $ 200,000 per country. The total costs will consequently be about $ 15,000,000.

Grants are foreseen for training, research, meetings and publications in some 30 countries for which $ 1,500,000 is reserved.

The Hague, December 1971

## Appendix I

### LISTING OF FERTILITY SURVEYS CARRIED OUT BETWEEN 1965 and 1971 *)

#### Europe and the USA

The Economic Commission for Europe has initiated a comparative European inquiry on fertility and family planning which is now in an advanced stage. The following twelve countries will be included: Belgium (1966-1970), Czechoslovakia (1970), Denmark (1970), Finland (1971), France (1971), Hungary (1965-1966), Netherlands (1969), Poland (1971), United Kingdom (1967-1968), Yugoslavia (1970) and USA (1970). The USA study is one in the continuing series of Growth of American Families projects which have been conducted approximately every five years beginning in 1955. Some six to eight European countries may undertake fertility surveys in the next several years. The ECE seems to be properly equipped to produce comparative analyses of fertility levels and patterns of reproductive behavior.

#### The Middle East

In lebanon two surveys are nearing completion, one carried out by the Central Statistical Office and involving 4,500 households, the other by the Family Planning Association, involving 3,000 households. Planning for a survey in 1972 has been started in Jordan, Syria (Damascus) and Iraq (Baghdad). UNESOB is assisting the governments.

#### Africa

Sixteen countries have had either a fertility survey or a population census with questions on fertility or a census-survey type of inquiry. These are: West Cameroon (1965-1966), Sudan (1964-1966), Ethiopia (1965), Algeria (1966), Madagascar (1966), Swaziland (1966), Egypt (1966), Kinshasa (1967), Ethiopia (Addis Ababa in 1967), Mogadiscio (1967), Tanzania (1967), Zambia (1968-1969), Yaounde (1969), Liberia (1969), Kenya (1969), Rhodesia (1969), Uganda (1969), Malawi (1970) and Ghana (1970). Botswana is planning for a survey by the end of 1971. Several agencies have assisted in preparation and execution of these surveys, including ECA. ECA is launching a major African population census program for which about 24 countries have demonstrated an interest. The program also includes, on a sample basis, questions concerning fertility.

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*) The information is based on a correspondence survey conducted personally by Dr. Milos Macura.

**Asia and the Far East**

Thirteen countries have carried out a fertility survey, among them: Indonesia (1967), Iran (1967), Korea (1967), Malaysia (1967), Taiwan (1967), Thailand (1967), Hong Kong (1968), India (1968) (a second inquiry in Mysore is currently being considered), Pakistan (1968), the Philippines (1968) and Japan (1969). Planning for a survey in 1971 is underway in Korea and Western Samoa, and for 1972 in Ceylon and Nepal. Assistance was provided by several foreign agencies and by ECAFE.

Latin America

Fourteen countries have carried out a fertility survey, including: Argentina (Buenos Aires, 1964), Bolivia (1969), Brazil (Rio de Janeiro, 1964), Colombia (Bogota in 1964, and a national survey in 1969), Chile (Santiago in 1969, and a national survey is underway in 1971), Ecuador (main urban areas in 1967), El Salvador (San Salvador, 1965), Guatemala (Guatemala City in 1965), Mexico (Mexico City in 1964, national survey in 1969), Panama (Panama City in 1964), Peru (1966-1969), Venezuela (Caracas,1964) and the Dominican Republic (underway in 1971). CELADE assisted in developing the surveys in most of the countries of Latin America.

## Appendix II

### LISTING OF MAJOR KAP SURVEYS *

| | |
|---|---|
| **Algeria** | |
| June 1967 - April 1968 | Random sample representing population of the 13 departments of the North (n=2,140 couples). |
| **Argentina** | |
| 1963 | Urban fertility survey conducted in Buenos Aires; coordinated by CELADE. |
| **Barbados** | |
| June - Aug.1964 | Survey of 1,512 females of reproductive age (excluding school children). |
| **Belgium** | |
| 1967 | National fertility study which included KAP questions. |
| **Brazil** | |
| 1963 | Urban fertility survey conducted in Rio de Janeiro; coordinated by CELADE. |
| **Canada** | |
| Dec. 1967 - March 1968 | Scientific probability sample of 1,632 once-married women under 45, currently living with their husbands in Metropolitan Toronto. |
| **Ceylon** | |
| 1959 - 1965 | Family Planning Project carried out by the governments of Ceylon and Sweden. |
| 1963 - 1966 | 78 rural villages grouped into six demographic areas |
| **Chile** | |
| 1959 | Urban KAP survey (n=1,970 F). |
| 1962 | Abortion study and some KAP in Santiago. |
| 1965 | Attitudes, knowledge, and opinion on Family Planning and Contraceptives in Ja Calera (N=954F) |

*) The information is mainly based on the listing in A Manual for Surveys and Family Planning: Knowledge, Attitudes and Practice, published by the Population Council (New York 1970), pp.189-219.

| | |
|---|---|
| **Chile (cont'd.)** | |
| 1966 - 1967 | Study of the family and the fertility in marginal populations of greater Santiago (N=1,181 F,757 M). |
| **Colombia** | |
| 1963 | Urban fertility survey conducted in Bogota; coordinated by CELADE (n=2,259 ever married women) |
| 1969 | Rural fertility survey; coordinated by CELADE. |
| 1969 | Urban fertility survey |
| **Costa Rica** | |
| 1963 | Urban fertility survey conducted in San Jose; coordinated by CELADE. |
| 1965 | National probability sample of 1,500 men and women over 20 years of age of any marital status. |
| 1969 | Rural fertility survey; coordinated by CELADE. |
| **Czechoslovakia** | |
| 1958 - 1959 | National probability sample (n=3,192 F). |
| **Ecuador** | |
| 1965 | Fertility studies conducted in Quito and Quayaquil; coordinated by CELADE. |
| 1967 - 1968 | Fertility studies in 3 cities and 15 rural districts in connection with CELADE. |
| **France** | |
| 1955 | National survey (n=2,432 adults over age 20). |
| 1956 | National survey,of 10,645 F. |
| 1959 | National survey |
| 1966 | National survey of 2,519 M and F in urban areas. |
| **Ghana** | |
| 1963 | Random sample of urban elite (n=296 M & 331 F). |
| 1963 | Survey of 709 rural households in 28 survey areas. |
| 1965 - 1966 | Rural/urban study (n=6,000). |
| **Great Britain** | |
| 1947 | National Benchmark survey of attitudes, sample of 10,000 F; based on hospital patients. |
| 1959 - 1960 | First national representative survey of family planning attitudes in Britain (n=2,350 M & F.) |

**Great Britain (cont'd)**

| | |
|---|---|
| 1967 - 1968 | National fertility survey (n=2,300 married F). |

**Greece**

| | |
|---|---|
| 1962 | Rural/urban survey of 3,838 couples. |

**Guatemala**

| | |
|---|---|
| 1965 | Urban fertility survey conducted in Guatemala City; coordinated by CELADE. |
| 1968 | KAP-type study. |

**Hong Kong**

| | |
|---|---|
| 1967 | Benchmark Urban Family Life Survey (n=1,550 married F). |

**Hungary**

| | |
|---|---|
| 1958 - 1960 | National probability sample of 6,732 F in reproductive age group. |
| 1965 - 1966 | Study on fertility, family planning and birth control (n=c. 8,800 married F aged 15-49). |

**India**

| | |
|---|---|
| 1951 | Pilot survey in family planning in 26 villages lying in community development area on Lucknow-Sitapur Road (n=1,453 women in reproductive age group). |
| 1951 - 1952 | Rural/urban survey in Poona District (urban n=511 F & 850 M; rural n=240 F & 855 M). |
| Dec. 1951 - Sept. 1952 | Mysore Population Study. |
| 1952 | Pilot studies in rhythm method in Lodi and Ramanagaram. |
| 1952 - 1954 | Survey conducted in three districts continuous to Poona, in continuation of survey in Poona City and district. |
| 1953 - 1960 | Khanna-Ludhiana field studies on population dynamics (research endeavor). |
| 1957 - 1969 | Action-research family planning program in Singur. |
| 1957 - 1960 | Delhi Village Surveys. |
| 1958 | Survey of 1,000 married couples in Pudupakkam area of Madras City. |
| 1958 | Rural/urban survey of men and women in Nagpur district, Central India. |

| | |
|---|---|
| **India** (cont'd) | |
| 1958 - 1959 | 1,291 households randomly selected in Trivandrum City, Kerala State; husbands and wives both interviewed. |
| 1960 - 1961 | All-India urban survey. 12,666 households selected; male heads interviewed (n=16,159 M). |
| 1962 | Survey of two rural areas outside the city of Trivandrum. 11,000 couples interviewed in the action area and 12,000 in the control area. |
| 1964 | Survey of fertility and family planning attitudes in two rural areas of the two Uttar Pradesh districts, Mathura and Saharanpur. The heads of 2,718 households were asked four KAP questions. |
| 1965 | Survey of family planning attitudes and practice before (April) and after (June) a publicity campaign. 550 husbands and wives (roughly) interviewed each time in the Hoogly District of West Bengal. |
| 1966 | Benchmark survey on fertility in Hoogly District. 2,656 currently-mated, married, rural couples and 1,115 currently-mated, married, urban couples, of whom the wives were aged 15-50. |
| 1967 | Survey of 1,000 F. |
| 1968 | Greater Bombay fertility survey covering a sample of 7,872 currently married women. |
| Indonesia | |
| 1961 - 1962 | Family Life Study in East Java (n=2,208 M & F) |
| 1968 | Independent sample from house registration lists of 2,241 evermarried men and women in Djakarta aged 15-49. |
| Iran | |
| 1965 | 2,797 households randomly selected in Teheran and four rural districts (n=married woman aged 10-49). |
| Jamaica | |
| 1956 | Jamaica family Life Project. |
| Japan | |
| 1950 (n=2,782 M; 2,797 F)<br>1952 (n=3,132 M; 3,158 F)<br>1955 (n=2,805 M; 2,949 F) | National Public Opinion Surveys |

| | |
|---|---|
| **Japan (cont'd)** | |
| 1957 (n=2,928 M; 3,075 F) | National Public Opinion Surveys |
| 1959 (n=2,716 M; 2,965 F) | |
| 1961 (n=2,667 M; 2,897 F) | |
| 1963 | |
| 1965 (n=3,140 F) | |
| 1967 (n=3,804 F) | |
| **Kenya** | |
| 1966 | Purposive survey of 352 married African adults (152 M & 200 F). |
| 1966 - 1967 | Purposive survey in 6 survey areas (n=1,380 rural M & F). |
| **Korea** | |
| 1964 | Urban survey of 3,204 F in Sundong Gu. |
| 1966 | Follow-up survey of 3,045 F in Sundong Gu. |
| 1962 | Baseline survey prior to action program in Koyang Province. |
| 1964 | Survey after the action program. |
| 1966 | Survey of 3,609 F in Seoul City. |
| 1964 | Benchmark national survey; (n=4,008 F). |
| 1965 (n=3,445F) | National surveys |
| 1966 (n=3,368F) | |
| 1967 (n=3,624F) | |
| 1968 (n=6,889F) | National Fertility and KAP study. |
| **Lebanon** | |
| 1959 | Fertility survey with KAP questions of 900 Lebanese female nationals married only once and for more than five years. |
| **Malaysia** | |
| 1966 - 1967 | West Malaysian Family Survey (n=5,457 currently-married women aged 15-45). |
| **Mexico** | |
| 1963 | Urban fertility survey conducted in Mexico City; coordinated by CELADE. |
| 1969 | Rural fertility survey; coordinated by CELADE. |

| | |
|---|---|
| **Morocco** | |
| 1966 | Rural/urban survey in the province of Meknes (n=1,026 F). |
| 1966 | National urban study of 3,032 F, 865 M, 871 older women, and 500 single girls. |
| 1967 | National study of 1,428 F, 662 M, 266 older women, and 106 village leaders in the rural areas; and survey (also national) of 462 F, 230 M, and 76 older women in small town areas. |
| **Nigeria** | |
| 1969 | National survey (n=8,400 MF). |
| **Pakistan** | |
| 1960 | Survey of 2,087 ever-married persons in the Lahore area. |
| 1960 | University of the Panhab sampled 500 married couples in Lahore and analyzed the relationship between attitudes towards family planning and level of income and education. |
| 1962 - 1965 | Action-research project in Lulliani. |
| 1963 | Dacca Family Growth Study; 543 husbands and their wifes interviewed in Dacca City. |
| 1964 | Follow-up survey in Dacca City. |
| 1963 - 1964 | 1,960 married F interviewed in Lahore as part of a fertility survey. |
| 1965 | Survey of 2,361 professionals in Pakistan. |
| Febr. - June 1966 | First part of a two-part Central Evaluation Unit survey (n=1,339 husbands and 1,586 wives from 23 districts in W. Pakistan). |
| Aug. 1966 - Jan. 1967 | Second part of the Central Evaluation Unit survey (n=1,358 husbands and 1,664 wives). |
| 1967 | Complete enumeration of all married couples (n= 2,078 couples) in the 15 villages of Comilla-Kotwali Thana. |
| 1968 | National Impact Survey. |
| 1968 | Probability Sample of currently-married women aged 15 - 49 (n=1,600 F) in Comilla-Kotwali Thana. |
| **Panama** | |
| 1963 | Urban fertility survey conducted in Panama City; coordinated by CELADE. |

| | |
|---|---|
| **Peru** | |
| 1960 | Random sample of 2,344 currently mated women in Lima and The highland town of Huaylas. |
| 1966 | KAP-type survey of Lima. |
| 1967 | KAP-type national survey. |
| 1967 | Survey of women 15-49 and their husbands in Cerro de Pasco (n=896 F & 515 M). |
| 1969 | Rural fertility survey; coordinated by CELADE. |
| 1969 | Urban fertility survey conducted outside Lima (CISM). |
| Philippines | |
| 1963 (Nov.) | Fertility survey of Imus municipality in Luzon of married F aged 15 years or older (n=1,558 F). |
| 1964 (May) | Fertility survey of Calasiao municipality in Luzon of married F aged 15 years or older (n=1,427 F). |
| 1964 (Sept.) | Fertility survey of Tiwi municipality in Luzon. 1,414 wives of household heads interviewed; sample not representative of married women aged 15 years or older. |
| 1966 | Fertility study of Miagao municipality in Iloilo Province on Panay Island. Married F aged 15 years or older interviewed (n=1,569 F). |
| 1966 | Field survey of the City of Manila (n=1,769 wives of household heads). |
| 1967 | Resurvey of Imus municipality (n=c. 1,600 F). |
| 1967 (Oct.) | Resurvey of Miagao municipality (n=1,360 F). |
| 1967 | Resurvey of Calasao municipality (n=1,516 F). |
| 1967 | Survey of 1,040 F in Dumaguete City. |
| 1968 | Follow-up survey in Dumaguete City (n= 801 F). |
| Puerto Rico | |
| 1947 - 1948 | Large scale interview study with representive sample of population devoted exclusively to attitudes and behavior pertinent to fertility (n=13,272 MF). |
| 1953 | National survey, not probability (n=885 F). |
| 1968 | National survey (n=1,000 F). |
| South Africa | |
| 1957 - 1958 | Survey of 1,022 white, married women under 50. |

| | |
|---|---|
| **Taiwan** | |
| 1957 | Survey of 7,422 F in the rural/urban areas of Taipei and three other areas. |
| Dec. 1962 - Jan. 1963 | Benchmark survey of 2,432 married F in Taichung City |
| Nov. - Dec.1963 | Follow-up survey of 2,444 married F in Taichung City. |
| 1964 | National survey (n=14,189 F aged 18-39). |
| 1965 | National KAP-1 survey (n=5,360 F). |
| 1967 | National KAP-2 survey (n=4,989 F). |
| 1970 | Third island-wide KAP survey of women aged 20-42. 2,242 women from KAP-2 reinterviewed and new sample of 316 from the women married in period between the two surveys (total n=2,558 F). |
| Thailand | |
| 1964 | Survey of 1,207 F in the district of Pkotharam. |
| 1965 | Follow-up survey in Pkotharam District of 1,337 F. |
| 1967 | A third survey in Pkotharam District of 1,596 F. |
| 1967 - 1968 | Survey of 960 married F in Bangkhen, a suburban area of Bangkok. |
| Tunisia | |
| 1964 | Urban survey of 2,056 F. |
| Turkey | |
| 1963 | National survey (n=5,100 M & F). |
| 1966 | Probability sample of 803 households in Ankara. |
| 1968 | National survey (n=3,290 F). |
| U.A.R. | |
| 1957 | Rural/urban fertility study. |
| U.S.A. | |
| 1941 | Indianapolis study of 1,977 native white Protestant couples, designed to test specific hypotheses about factors affecting fertility. |
| 1955 | Benchmark Growth of American Families Study (n=2,684 white women under 40). |
| 1960 | Second Growth of American Families Study (n=3,322 married white and Negro women aged 18-44). |

U.S.A. (cont'd)

| | |
|---|---|
| 1965 | National Fertility Study. |
| 1957 | Family Growth in Metropolitan America study (also known as the Princeton Study) Phase I; interviews with 1,165 couples who had a second child in September 1956. |
| 1960 | Phase II of the Princeton Study: 2nd. interviews with 905 couples from the original sample. |

Venezuela

| | |
|---|---|
| 1963 | Urban fertility survey conducted in Caracas; coordinated by CELADE. |

West-Germany

| | |
|---|---|
| 1958 | National sample of West German adults (n=1,800 married M & F). |

## Appendix III

### SHORT BIOGRAPHIC SKETCHES OF ISI OFFICERS AND PROJECT DIRECTOR

**BJERVE, Petter Jakob**
President, International Statistical Institute

Born: 27 September 1913 in Stjørdal, Norway

Present position:

Director of the Central Bureau of Statistics of Norway (from 1949)

Previous positions:

Oslo University: Research assistant, Institute of Economics, 1939-40
Instructor in Economic Theory, 1941-44
Lecturer in Economic Theory, 1945-54
Research fellow, 1945-49

Chief of Division, Ministry of Finance, 1945-47

Visiting Professor, Stanford University, 1954-55

Minister of Finance, 1960-63

Financial Advisor to a UN Mission in Zambia, 1964

Advisor on Monetary and Fiscal Policy for the Planning Commission of Pakistan, 1968-69

Statistical Policy Expert in an ILO-Mission to Ceylon (World Employment Programme), Spring 1971

Degrees:

Candidate degree in Economics, Oslo University, 1941;
Doctor philosophia, Oslo University, 1962

Fellowships:

Fellow of the Scandinavian-American Foundation and the "Hall of Nations" at American University, Washington D.C., 1938-39

Fellow of the Rockefeller Foundation for study at Harvard University and several other universities in USA, 1947-49; and for research in 1957

Honorary fellow of:

The Statistical Association of Sweden, 1951; the Statistical

Association of Finland, 1960; the American Statistical Association, 1965; the Royal Statistical Society, 1967.

Member of:

The Council of the International Association for Research in Income and Wealth, 1953-59; the International Statistical Institute, 1955- ; the UN Population Commission, 1955-59; the UN Statistical Commission, 1960-69.

Chairman of:

The UN Statistical Commission, 1965-68; the Conference of European Statisticians, 1971- .

President of:

The International Statistical Institute, 1971- .

Publications:

Government Economic Planning and Control in Scandinavia. Scandinavia between East and West. Editor Henning Friis. Cornell University Press, New York 1950

Nationale Buchführung und Nationalbudget in Norwegen. Weltwirtschaftliches Archiv, Band 67, Kiel 1951

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Trends in quantitative economic planning in Norway. Economics of Planning No. 1-2, Oslo 1968

In addition, several books and a large number of articles in Norwegian.

VERSTEGE, Johannes Christoffel Willem
Secretary General, International Statistical Institute

Born: 12-8-1912 in The Netherlands (Dutch nationality)

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|---|---|
| 1931 - 1936 | University of Utrecht (human geography) Dr. (cum laude), 1942 |
| 1937 - 1938 | Research-worker, Geographical Institute, University of Utrecht |
| 1938 - | Central Bureau of Statistics, The Hague |
| 1943 - 1945 | Deputy-chief, Department of Vital Statistics |
| 1945 - 1949 | Head of the department of general censuses (Population and Housing Census 1947) |
| 1949 - 1966 | Deputy - Director General of Statistics |
| 1966 - | Director General of Statistics |
| 1941 - 1966 | Secretary, Royal Central Commission of Statistics |
| 1951 - 1954 | Professor, Social research and descriptive statistics (part-time), University of Leyden |
| 1947 | Member, International Union for the Scientific Study of Population |
| 1955 | Member, International Statistical Institute |

KENDALL, Maurice George, MA, ScD, FBA, FRSA
Treasurer, International Statistical Institute

Dr. Kendall was born at Kettering, Northants, in 1907 and educated at Derby and St. John's College, Cambridge. Here he read mathematics for four years (plus economics in the fourth year) and was a Wrangler in 1929.

In 1930 he entered the Ministry of Agriculture and Fisheries and in 1936 he became head of the Ministry's Economic Intelligence Branch. In 1940 he resigned from the Civil Service to become Statistician to the United Kingdom Chamber of Shipping where, in 1946, he became Joint Assistant General Manager. During this time he wrote a two-volume standard text on "The Advanced Theory of Statistics". (This work now extends to three volumes with Professor A. Stuart as co-author.)

In 1946 he accepted a newly-created Chair of Statistics at the London School of Economics. During the 12 years in this position his numerous activities ranged far beyond the lecture theatre. Among other things, he created and directed the now internationally famous Division of Research Techniques at the School.

He joined his present company, Scientific Control Systems Limited (formerly C-E-I-R Limited) in March 1961. A year later he was appointed Managing Director, and became Chairman in 1967. In August 1971 he was appointed Chairman of Scientific Control Systems(Holdings) Limited and subsequently relinquished his chairmanship of Scicon Limited.

In 1968 he was awarded a Gold Medal by the Royal Statistical Society for his outstanding contributions to statistics.

In July 1970 he was elected a Fellow of the British Academy and in April 1971 was elected a Fellow of The Royal Society for the Encouragement of Arts, Manufactures and Commerce (known as The Royal Society of Arts).

Dr. Kendall's publications include 14 books and about 100 scientific papers on statistics and economics. He is as present:

Fellow of American Statistical Association
Fellow of The British Academy
Fellow of The British Computer Society
Fellow of Econometric Society
Fellow of Institute of Mathematical Statistics
Fellow of The London Business School
Fellow of the Royal Society of Arts
Former President of the Institute of Statisticians
Former President of Operational Research Society
Former President of Royal Statistical Society
Former Vice-President of Market Research Society
Member of International Statistical Institute

He also holds Honorary Degree of Doctor at University of Essex and is a Visiting Professor at The London School of Economics.

LUNENBERG, Engelbartus

Born: 11-8-1922 in The Netherlands

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|---|---|
| 1945 - 1951 | Netherlands School of Economics, Rotterdam. Candidate degree in Economics (1947), Doctorandus in Economic Sciences (1951) |
| 1951 - 1953 | Director, Netherlands Centre for UNESCO, Amsterdam. Secretary to Netherlands Government Delegation to UNESCO General Assembly, Paris. |

1953 - 1954 Staff member for International Relations, Netherlands Ministery of Education, Culture and Science, The Hague. Assistant Secretary, National UNESCO Commission.

1954 - International Statistical Institute: Deputy Director, Permanent Office (1954-1955), Director (1955)

Secretary, International Association of Municipal Statisticians;
Executive Secretary, International Association for Statistics in Physical Sciences;
Executive Secretary, International Association of Survey Statisticians;
Executive Secretary, Mathematical Programming Society;
Member, European Comittee, Institute of Mathematical Statistics.

MACURA, Milos

Born: 20-1-1916 in Vienna, Austria (Yugoslav nationality)

Ph.D., University of Belgrade

Deputy Director at the Ministry of Commerce, Belgrade (1945-1947)

Director, Statistical Office of Serbia (1947-1954)

Director, Demographic Research Institute, Belgrade

Director, Federal Statistical Institute of Yugoslavia, Belgrade (1963-1966)

Director, Population Division, United Nations, New York (1966-1972)

Member, International Statistical Institute (1955)

Member, International Union for the Scientific Study of Population (1954)

Author of several articles and reports.