

PDAB3641
RS

PROJECT AUTHORIZATION 67898

A.I.D. Reference Center
Room 1656 NS

1. PROJECT NUMBER 931-11-570-966	3. COUNTRY Worldwide	4. AUTHORIZATION NUMBER 0142
2. PROJECT TITLE Population Data Systems		5. AUTHORIZATION DATE October 4, 1971
7. LIFE OF PROJECT		

a. Number of Years of Funding: 3
Starting FY 19 72; Terminal FY 19 74

b. Estimated Duration of Physical Work
After Last Year of Funding (in Months): 36

FUNDING BY FISCAL YEAR (in U.S. \$ or \$ equivalent)	DOLLARS		P.L. 480 CCC + FREIGHT	LOCAL CURRENCY			
	GRANT	LOAN		Exchange Rate: \$1 =		HOST COUNTRY	
				U.S. OWNED		JOINTLY PROGRAMMED	OTHER
Prior through Actual FY							
Operational FY 72	1,528						
Budget FY 73	1,919						
B + 1 FY 74	2,039						
B + 2 FY							
B + 3 FY							
All Subsequent FY's							
TOTAL	5,486						

9. DESCRIBE SPECIAL FUNDING CONDITIONS OR RECOMMENDATIONS FOR IMPLEMENTATION, AND LIST KINDS AND QUANTITIES OF ANY P.L. 480 COMMODITIES. 1. Authority for programmatic funding is approved subject to AA/TA review and approval of a plan of implementation which includes all appropriate policy, procedural and operational detail. 2. Increases in personnel programmed by BuCen for second half of FY 72 will be deferred until AA/TA has determined that effective demand for BuCen services exists in LDCs, and increase in workload justifies the expansion of staff projected beyond Jan. 1, 1972. 3. The appropriate Regional Bureaus will be brought into any discussions and planning of BuCen for activities (including programmatic) under this project which may result in projects within Regions.

10. CONDITIONS OF APPROVAL OF PROJECT

- Clearances: AFR/TAC, Princeton Lyman 9/24/71
EA/TECH, J.K. Shafer 7/2/71
LA/PCD, G. Coleman 7/12/71
NESA/OPP, R. Fitzmaurice (phone) 7/7/71
PROC/PAS, E. Rawson (phone) 8/16/71
PPC/SRD, E. Glaser (phone) 9/30/71

(Use continuation sheet if necessary)

11. Approved in substance for the life of the project or described in the PROP, subject to the conditions cited in Block 10 above, and the availability of funds. Detailed planning with cooperation and drafting of implementation documents is authorized.

This authorization is contingent upon timely fulfillment of the self-help and other conditions listed in the PROP or attached thereto.

This authorization will be reviewed at such time as the objectives, scope and nature of the project and/or the magnitudes and scheduling of any inputs or outputs deviate so significantly from the project as originally authorized as to warrant submission of a new or revised PROP.

A.I.D. APPROVAL	CLEARANCES	DATE
<i>James F. Campbell</i> SIGNATURE	TA/POP/AE, J.W. Brackett for JB GH TA/POP, R.T. Ravenholt RTR TA/PM, J. Kean	10/4/71 10/4/71
A/AID, Dr. John A. Henneb TITLE	10/18/71 DATE	A CONT

OCT 6 1971

ACTION MEMORANDUM FOR THE ADMINISTRATOR

THRU: EXSEC

FROM: AA/TA, Joel Bernstein

Problem: The attached PROP for Population Data Systems and Demographic Analysis requires your approval under A.I.D. regulations applying to projects which involve more than \$2 million of A.I.D. funds over the life of the project.

Discussion: The Population Program of A.I.D. requires better demographic data from LDCs, analyses and projections of LDC population trends, and improved understanding of the role of demographic trends in development. In order to deal with the complex technical problems of securing adequate data and analyses, and improving LDC data infrastructures, the Office of Population needs to make use of the resources of the Census Bureau, which is the agency having the greatest competence as well as the most extensive international experience in these areas. This project authorizes the Census Bureau to continue a number of essential services it has supplied to A.I.D. for several years under preceding agreement, as well as to undertake additional activities to strengthen LDC capabilities to produce demographic data and to employ such data effectively in planning. During FY 1971 more than 50 LDCs benefitted from Census Bureau activities supported by A.I.D. Activities proposed here can be expected to reach as many or more LDCs in each of the next three years.

This project is A.I.D.'s main instrument for supporting one of the major areas singled out in the Bellagio population discussions for increased attention by donor agencies, viz., strengthening the demographic base for population policy and program planning. The Census Bureau will also be cooperating with and providing technical consultation for the efforts of the responsible UN agencies to strengthen their programs in this field. The project concentrates on the following general objectives:

(a) Improvement of LDC permanent institutional capability for demographic data by developing and disseminating to LDCs improved data collection and processing technology through seminars and advisory services.

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AIG
EXECUTIVE SECRETARIAT
ACTION MEMORANDUM FOR THE ADMINISTRATOR

THRU: EXSEC

FROM: AA/PPC, Ernest Stern 

Problem: Your authorization of the attached PROP on Population Data Systems and Demographic Analysis is required before the project can be implemented.

Discussion: This project groups together and expands a variety of activities carried out by the Bureau of Census for A.I.D. in the field of population. It includes short term consulting services to A.I.D. Missions and to LDCs, as well as data collection and analysis for A.I.D.'s Office of Population.

The PROP has been reviewed by TAB with the Regional Bureaus and by members of my staff. We recommend approval of the project subject to the three conditions described in Block 9 of the attached Project Authorization and explained below.

1. TAB requests authority to provide programmatic funds to the Bureau of Census for use in subcontracting to private institutions activities in the demographic data and analysis area (see page 3 of attached memo from Mr. Bernstein). No funds are included in the PROP at this time for the programmatic feature. TAB plans to amend the PROP to incorporate the programmatic feature as soon as details can be worked out with the appropriate bureaus and offices. Thus it is recommended that authority for programmatic funding be approved subject to AA/TA review and approval of an implementation plan which covers all appropriate policy, procedural, and operational details.
2. The proposal contemplates an expansion of Bureau of Census staff engaged in population activities under the project, from a present level of 48 positions to 75 positions by July 1972. In order to insure that there is adequate justification for this substantial increase, it is recommended that the personnel increases planned by the Bureau of Census for the second half

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of FY 1972 be deferred until AA/TA has determined that effective demand for Bureau of Census services exists in LDCs and that increased workload justifies the expansion of staff projected beyond January 1, 1972.

3. To insure consistency with Mission programs, it is recommended that the appropriate Regional Bureaus be included in any discussions and planning by Bureau of Census for activities (including those funded under the programmatic) which may result in projects in the regions.

In addition I believe it is necessary that specific guidelines be developed concerning the nature and location of the activities (including programmatic) to be funded under this project. This will help insure maximum usefulness to A.I.D. and LDCs of the services to be rendered. I anticipate that such guidelines will be developed by TAB during the remainder of this fiscal year.

Recommendation: That you sign the attached Project Authorization indicating your approval of the project subject to the conditions described in Block 9.

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The Population Program Strategy for FY 1972 includes a plan to allocate a programmatic fund to the Census Bureau for use, with concurrence of A.I.D., in subcontracting to qualified private institutions appropriate tasks in the demographic data and analysis areas of the Bureau's special competence. The addition of this feature to the overall strategy did not occur until the basic project was well developed and had undergone most of the clearance procedures. Arrangements for effecting the programmatic feature are currently being worked out with the concerned bureaus, and already several important potential uses of the fund have been identified, including the processing of LDC attitudinal surveys by the Roper Institute for Public Opinion Research and support for the International Union for the Scientific Study of Population in sponsoring the first African Population Conference. The basic PROP is, however, being submitted for your approval at this time without the programmatic feature, because one-fourth of the current fiscal year has elapsed, and the Census Bureau is experiencing great difficulties in continuing to maintain its capabilities for services to A.I.D. without an approved FY 1972 agreement. As soon as possible an amended project incorporating the programmatic feature will be developed which will retain the same goals and rationalization as the basic PROP, but which will enable A.I.D. to more effectively mobilize available resources to achieve these goals. Because of the basically unchanged character of the project and the need to take prompt action on planned subcontracts, we will not plan to bring this matter again to your attention unless you should wish us to do so.

Recommendation: It is recommended that you approve the attached PROP.

Approved: _____

James F. Campbell

Disapproved: _____

Date: _____

10/18/71

Enclosure: PROP for Population Data Systems

TA/POP:CJHemmer:nb:10/1/71

Clearances (copies of memoranda attached):

EA/TECH, memo dated July 2

LA/PCD, memo dated July 12

NESA/OPP, Fitzmaurice/Hemmer exchange of memos with Fitzmaurice
phone clearance on July 7

AFR/TAC, memo dated September 24

PPC/SE/ED, E. Glaser memos of July 19 and August 27

PROC/PAS, E. Rawson telephone clearance August 16

5

10/4/71

NONCAPITAL PROJECT PAPER (PROP)

Country: Worldwide Project No. _____

Submission Date: June 29, 1971 Original X Revision _____

Project Title: Population Data Systems

U.S. Obligation Span: FY 1972 through FY 1974

Physical Implementation Span: FY 1972 through FY 1974 with possible extension

Gross life-of-project financial requirements: \$5,486,000

Budget Pattern (\$ thousand)

FY 72	\$1,528
FY 73	\$1,919
FY 74	\$2,039

I. SUMMARY DESCRIPTION

This project comprises a multiphased, closely coordinated program to (1) increase the flow of timely and reliable demographic and family planning statistics from developing countries, (2) improve the informational base for population policies and programs, and (3) increase the capacity of both developing countries and concerned United States agencies and organizations to interpret such data and to derive maximum value from them in the evaluation and planning of population programs. Timely, pertinent data and problem-oriented analyses will greatly enhance the ability of responsible officials to evaluate program alternatives involving the spending of substantial United States funds for world-wide programs during the next several years.

RELATION TO PROGRAM GOALS

The project focusses principally on the first two goals of the AID Population Program strategy for FY 1972. These are (1) Development of

Adequate Demographic and Social Data and (2) Development of Adequate Population Policy and Understanding of Population Dynamics. The improvement of data collection, processing and analysis in developing countries will, however, also contribute to other major program goals. The availability of timely and reliable data on the number, geographic distribution, age structure, and economic and educational level of the population is essential to development of adequate systems for delivery of family planning services (goal #4) as well as of adequate systems for delivering information/knowledge to the population (goal #5). Of course, assessment of the accomplishments of family planning efforts rests very heavily on such data.

The aspects of the project which relate most immediately to overseas program objectives are those contributing to institutional strength in individual countries to produce and utilize data. The project activity most directly related to this phase is the development and dissemination of methodology for censuses and census-type surveys to improve the basic data on population size and structure; this objective requires (a) assistance to and coordination with regional bureaus, missions, international organizations, and host country institutions, and (b) supporting training and institutional development. The other focus of activity is on the needs of the population policy formulation process for demographic and family planning data, and for analyses relating population dynamics to other social and economic variables within the context of the development process. The project activities relating to these needs include (1) development and operation of systems to evaluate, store, retrieve, and analyze demographic and family planning data, (2) supplying needed analyses and projections of such data, and (3) interpreting relationships

between demographic data and other social and economic factors. These latter functions are related to overseas program objectives, also, since socio-economic analyses are taught to LDC officials and applied to individual countries both as an educational device and, at a different technical level, as a planning tool for decision making.

The project expands and more effectively interrelates previously established advisory, training and analytical services. In addition, it introduces a new program for the installation or improvement of systems of family planning service statistics in developing countries, and for the compilation and analysis of the data from these systems.

CHOICE OF CENSUS BUREAU

The project will draw in large part upon technical resources which have been developed over the course of more than two decades. The Census Bureau, through which most of this project will be implemented, has conducted technical assistance programs for many years under the sponsorship of AID and its predecessor agencies. Since 1952, the overseas consultants of the International Statistical Programs (ISP) of this Bureau have furnished about 5,000 man-months of statistical advisory services to some 65 countries. In 20 of these, Bureau experts have served as advisors on the taking of population censuses, several of which were the first taken in these countries. During the same period, nearly 2,000 foreign participants from some 80 countries received statistical or data processing training in the Bureau's in-house practical and technological programs or in university programs planned and monitored by ISP training specialists.

The following listing of organizational units responsible for international activities of the Census Bureau includes not only presently

existing units but also proposed units being considered for implementation of additional activities covered by this PROP.

International Statistical Programs Division

Overseas Consultation and Research Office

Consultation Branch

Foreign Census Research Branch

International Statistical Training and Workshop Office

Training Branch

Statistical Workshop Branch

International Demographic Statistics Center

Socio-Economic Analysis Staff

Population Data Methods Office (proposed)

Census and Survey Methods Branch (proposed)

Computer Methods Branch (proposed)

Family Planning Data Methods Branch (proposed)

The Census Bureau supports from its own funds, staff engaged in international exchange and information activities conducted by the Foreign Census Research Branch, as well as a major part of the cost of the Office of the Division Chief. The remainder of the Bureau's international activities is supported by domestic support funding by AID, mission funding of overseas advisory services, and scholarship funding by USAIDs as well as by international organizations and foundations. PASP funding of the training, administrative, and consultative support staff has been at a level of about \$0.5 million during FY 1971. TA/POP funding of services by the Census Bureau in FY 1971 was at the level of about \$1.1 million,

principally for demographic services, development of methodological materials, and a pilot project in correspondence-type training of LDC technicians in survey methodology. For a very general comparison between funding levels proposed for this PROP for FY 1972 and FY 1971 levels funded for more or less comparable activities, estimates of activity levels are presented below for principal categories of services.

CENSUS BUREAU TECHNICAL ASSISTANCE IN DEMOGRAPHIC STATISTICS

Comparison of Activity Levels, FY 1971 and Proposed FY 1972

	FY 1971 Activity Level (Man-years/\$-thous.)	FY 1972 Activity Level (Man-years/\$-thous.)
Population Data Methods (Survey and Computer Technology)	10.5/\$278*	13.0/\$363
Demographic Data (Evaluation, Storage and Retrieval)	5.0/\$156	7.2/\$166
Population Analyses and Projections	12.5/\$269	10.9/\$250
Country Demographic and Family Planning Profiles	8.0/\$175	9.0/\$207
Analysis of Demographic Factors in Socio-Economic Development	6.0/\$153	7.8/\$231
Participant Training in Population Statistics and Demographic Analysis	4.5/\$151	7.2/\$205
Consultation and Other Administrative Support	<u>1.5/\$ 33</u>	<u>4.7/\$106</u>
TOTAL	48.0/\$1,215	59.8/\$1,528

* In addition to TA/POP funding, salaries for short-term consultative services in demographic statistics have been added to FY 1971, because such services will be rendered principally by proposed incremental staff in FY 1972.

With respect to advisory services, it should be noted that the PROP covers only short-term technical consultation. Long-term advisory services in demographic statistics, as well as both short- and long-term advisory services in non-demographic fields, are financed by PASA's with individual missions. Also excluded from this PROP is the funding of scholarships of participants, and costs of the present level of staff engaged in teaching demographic statistics. Allowance is made in the PROP, however, for the anticipated increase in training staff resulting from a growth in the number of participants as a result of the proposed augmented program.

In recent years, the ISP Consultation and Research Office has been increasingly responsive to the changing needs of population programs, e.g., by helping to develop and install advanced types of surveys to measure population growth in such countries as Thailand, Turkey, and Liberia, and by backstopping multilateral efforts to improve demographic data, such as the promising ECA regional program. The ISP Training and Workshop Office has developed innovative methods and materials in the population statistics field, such as model case studies for demographic sample surveys and population censuses, and vitally needed computer software for the rapid programming of the processing of census results.

Since 1968, AID requests for demographic analytical services have been filled by the Bureau's International Demographic Statistics Center (IDCS). This center has responded to numerous requests for demographic analyses and has published reports on population trends in a number of LDCs. This center has also carried out important developmental work on demographic data storage and retrieval systems and on computer simulation models for relating demographic phenomena to socio-economic factors and to population

program planning. The IDSC has made major contributions to the annual task of preparing the Agency's Population Program Assistance book. Members of its staff have traveled to a number of countries to provide technical assistance and participate in efforts to coordinate demographic analytical efforts with international and host country institutions.

ACTIVITIES PLANNED

Under this project, increased expert assistance will be made available to LDCs to (1) conduct censuses or demographic surveys, and (2) establish and maintain effective systems of family planning records-keeping for program guidance. Assistance will include the application of effective census or survey design and rapid methods of processing and publishing census and survey results. In the area of family planning service statistics, emphasis is placed on installation of computer-based systems to yield accelerated feedback of data for evaluation of programs. Another activity for which assistance will be made available is the analysis of demographic and family planning (FP) statistics, both to (1) evaluate quality, (2) interpret them in relation to other social and economic phenomena, and (3) develop models which would spell out data-based program implications. All assistance will be channeled through short-term advisory services and training workshops held in the United States and other countries.

The project continues demographic services in support of population programs of AID. These services include the completion, updating and operation of a system through which demographic and family planning data are evaluated, stored, and rapidly retrieved so as to facilitate study of a wide range of aspects of population programs. During the forthcoming phase of this activity, special emphasis will be placed on assembling in

the United States, storing, and analyzing service statistics from LDC family planning programs of all countries where such data are now, or later become, available. This project also continues tasks in statistical analyses linked to the basic demographic system and undertaken in support of information needs of AID population programs; these include the preparation of country population projection reports, demographic and family planning data profiles, and special analyses in response to specific requests. Developmental work will also be continued on computer programs to (1) perform evaluative and interpretive analyses of demographic and FP data, (2) construct computer simulation models which relate demographic and socio-economic data and (3) analyze requirements of family planning programs under alternative assumptions regarding programs.

The ongoing Census Bureau basic training program in population statistics and demographic analysis for LDC participants will be augmented and enriched. The Bureau's resources for supplying and backstopping advisory services to LDCs and to AID technical assistance will also be strengthened.

II. SETTING OR ENVIRONMENT

The dearth of data on the size, composition, and dynamics of the populations of developing countries is the principal barrier to an adequate assessment of the population problems of individual countries, world regions, and the world as a whole. The urgent need for action on population problems has become increasingly recognized by country governments and by international organizations; in this context, the lack of data for program guidance amounts to a serious emergency. A recent indication of this was the finding by the Economic Commission for Africa that goals of social and economic planning will have little chance of realization unless a minimum program for collection in each country of data on fertility, mortality,

and other essential demographic data is undertaken immediately. This finding was endorsed by the United Nations Fund for Population Activities, which agreed to give major support to an unprecedented African regional demographic statistics program.

The critical nature of the need for data to evaluate programs in the population field is underlined by the scale of U.S. expenditures on such population programs as a whole, which is now at an annual level of one hundred million dollars. Feedback of information is needed about the impact of alternative FP programs on fertility rates and population growth rates in order to avoid an unproductive use of funds.'

There are formidable obstacles to the production of demographic data in LDCs, ranging from difficult physical and cultural environments to the lack of financial and technical resources for data collection programs. Moreover, workable methods of measuring fertility, mortality, and age structure of populations in the least developed countries are more complex and operationally difficult than those used in developed countries, thus compounding the difficulties stemming from the lack of resources.

Efforts to improve the availability of needed data in LDCs must deal with two skills: to collect and process data, and to analyze and employ data usefully. Countries which cannot interpret data will (1) tend to lack interest in their collection, and (2) will not commit the manpower resources to provide a continuing flow of population data. On the other hand, countries interested in creating such capacities will be unable to do so unless practical methods adapted to their conditions are developed, and then communicated through practical training programs and effective consultative assistance.

The foregoing discussion has focussed upon needs for increased data production and analysis capacities within LDCs. There is a need also to improve AID's capability to employ demographic and FP data effectively for population program purposes. Techniques for rapidly marshalling, manipulating, and analyzing demographic and socio-economic data and for thoroughly exploring their long-term interrelationships require further development.

III. STRATEGY

This project will attempt to resolve the problems described above by a closely coordinated program which would (1) develop the methodology for population data systems applicable to developing countries; (2) maximize the usefulness to population program activities of population and family planning data of developing countries; (3) transfer to the developing countries the technology and required skills to collect, process, and interpret population, family planning, and related socio-economic data.

ROLE OF CENSUS PASA

This three-part strategy can be carried out best by use of the Census Bureau's services on the basis of a PASA. This agency has had many years of experience in the adaptation of statistical and data-processing technology to LDC conditions, in supplying advisory and training services to LDCs, and in compiling and analyzing demographic and social data of foreign countries. More than any other organization in the United States, and possibly in the world, it has experienced and found workable solutions for the many problems of communicating with individuals of diverse cultures in developing countries about the technology of statistics, data processing, and analytical techniques. Its expertise extends to preparation of training materials and teaching methods suited to these problems, and to

administrative and managerial capability for responding to varying demands for advisory services in many countries and for adapting training curricula to varying needs of different participants. Its own domestic technical resources give strong support to its experienced international statistical programs staff, so as to equip it uniquely for the diverse tasks covered by this PROP. Because of this institutional strength and broad-based experience, the Census Bureau can carry out its functions with much less detailed direction and guidance from responsible AID monitors than could a less-experienced agency or contractor, thereby lessening the administrative burden of the AID staff.

UTILIZATION OF OUTPUTS

Recent experience in use of Census Bureau services strongly suggests that the expanded service supplied under this project will be fully and effectively utilized. In the demographic services function performed by the International Demographic Statistics Center, the past fiscal year saw a greatly increased demand for services. The number and variety of population projections supplied to AID regional bureaus more than tripled. Other data requests from AID regional bureaus also increased sharply. During the past year, tabulation services for host country agencies transmitted through AID missions consumed a significant portion of IDSC's time and resources. Especially significant increases were noted in requests for demographic data and services received from AID contractors in population and related areas. Time spent by IDSC staff in short- and medium-term advisory services to host countries likewise consumed a significant portion of IDSC resources during the past year. In summary, as IDSC's capabilities and resources have become better known to host countries, AID Washington Staff,

and AID contractors, an expanded demand for information and services has been generated and continues to be generated.

The nature of the demand by developing countries for development of methods, training in techniques, and advisory services such as those supplied by this project is well illustrated by the CENTS (Census Tabulation Systems) project, which teaches a special method of programming the processing of censuses and surveys. This method, which is a technological breakthrough of great significance, was developed by a Census Bureau expert out of long experience in working with U.S. Census programs, in assisting developing countries to process censuses on small computers, and with knowledge of the need for reducing the lapse of time between collection of census data and their availability for use in planning. The project was initiated in early 1970, and by June a seminar was ready for presentation which taught technicians of developing countries how to write a program for census processing in a fraction of the conventional time, how to adapt a great volume of processing to the limitations of small computers, which was previously impossible, and to achieve, as a result, a great reduction in the elapsed time between the collection of census data and the production of final tables showing the results. As an example of this reduction, the final results of the Mexican Population and Housing Census taken in January 1970 were tabulated and published at the municipio level within 9 months; the comparable process during the 1960 Census took $3\frac{1}{2}$ years. The CENTS Tabulation System is now being used by six developing countries; five others have specifically indicated their intention to use it; ten other countries whose technicians have received training in the techniques will probably use it. Plans are being developed for its presentation to

a number of additional countries' technicians through a seminar to be held in connection with the ECA African regional census program. These results have been realized in little more than one year.

The need for United States' technical contributions to multilateral programs will form an additional component of demand for the services provided by this PROP. An important example is the demographic statistics program of the Economic Commission for Africa, which is an unprecedented initiative to create statistical and analytical capability in the statistically least-developed region. The prospects of greatly increased effective demand for workable techniques, training, and advisory services are strengthened by the plan for financial support from the United Nations Fund for Population Activities. Some 40 African countries are potential participants in some phase of this program. The United Nations Statistical Office is considering extending to Latin America and Asia a somewhat similar effort to stimulate programs in improvement of current demographic data. Resources provided under this project will contribute to the success of such regional efforts, even as the Census Bureau contribution under the preceding PASA was of key importance in developing the ECA program. Involvement of the U.S. Bureau of the Census in these programs on either a bilateral or multilateral basis is essential if the programs are to succeed, because nowhere else does the critical mass of technical manpower and know-how exist. This fact is well recognized by the United Nations as well as by national statistical offices around the world.

RELATION TO OTHER PROJECTS

It should be noted that the activities contemplated by this project are not duplicative of other TAB projects in the same general areas, but

are addressed to problems or aspects of problems not covered by other activities. For example, although the Population Laboratories program carries on basic research in measurement techniques, the survey methods development work of this project concentrates on adaptation of known methods to particular conditions--its focus is on problem solution for current operational programs, rather than on experimental projects with long-range payoff. A distinction exists also between TEMPO and this project's socio-economic analysis; the former disseminated an analysis with an educational or propagandistic objective, while the latter focuses on the development and application of a more detailed analysis designed for use of planning officials in making actual planning decisions. There is enough complementarity between some elements of this project and others that an available expert of one or another could be assigned to meet a specific country need. Such related capacity provides a needed flexibility in resources available to respond to fluctuating needs in an overall diversified program which is far too large to be served by a single contractor in any of its major components. In the detailed planning of assignments and in continuing monitoring, however, care will be taken to avoid unnecessary duplication of work in related areas, and to take full advantage of all applicable related output of each contractor.

IV. PLANNED TARGETS, RESULTS, AND OUTPUTS

The objectives of this project will be covered in six broad categories. The activities to achieve these objectives are designed to be closely interdependent, so that in effect they will merge as one coordinated effort to deal with the many facets of the development of adequate population data systems in LDCs.

1. Population Data Systems - Census and Survey Methods

The objective in the field of the collection, processing and publication of demographic data is to help as many LDCs as possible to attain the same minimum level of essential demographic data which was prescribed for African countries by the January 1971 Consultative Group Meeting on African Census Programs. This minimum standard will be the production of (1) reliable national estimates of fertility and mortality on a continuing basis, preferably at six-month or annual intervals; (2) reliable national estimates of the population age structure; (3) data on patterns of migration; and (4) a count of the entire population by sex and by geographic area. This minimum standard is chosen because it represents the considered judgment of experts from UN organizations and donor nations concerned with population programs. The United Nations Fund for Population Activities is prepared to support the achievement of this standard in African countries, and has a general policy of supporting demographic statistics in other regions.

The development of systems to produce such data in LDCs is usually accomplished in not less than three years. Therefore, in projecting levels of activity for the first three years of the project, it is anticipated that efforts begun in any country during the first year will be continued during the third year. In addition, it is assumed that it will be feasible to add countries each year to those being assisted, as the advisory, training, and methodological development programs gather momentum. As only a handful of countries have begun to collect data fulfilling the minimum requirement, the goal of eventually helping a substantial number of LDCs seems attainable.

Assistance will be channeled through seminars and workshops, technical support activities, follow-up implementation assistance in individual countries, and short-term consultative services. Accompanying and supplying a technological base for these activities will be an ongoing research and development program to produce needed computer software and training materials, and to adapt sampling and survey operational techniques to varying country capabilities and field conditions.

2. Family Planning Evaluation Systems

This activity has two related objectives: (1) to create capability in LDCs to collect, process, and analyze family planning clinic data, and (2) to compile in the United States and analyze for program purposes all available service statistics from LDCs.

The first objective entails (1) completing during FY-72, manuals, software, and training materials for teaching of a computer-based system to process and analyze family planning clinic records; (2) conducting a series of workshops in this system for LDC family planning staffs during FY-72 through FY-74; and (3) providing follow-up implementation assistance through short-term advisory services.

It is anticipated that several LDCs may be assisted in installing or improving clinic record systems which will provide rapid feedback for guidance of family planning programs. (Financing of this activity is covered by the PROP entitled "Accelerated Feedback for Guidance of Family Planning Programs," Project No. 931-11-570-943. The basic computer software for processing of FP client records is being supplied by Battelle Institute under a separate contract. Reference may be made to the cited PROP for a more complete explanation of the scope of activities and contributions to it by other contractors.)

The second objective in the family planning statistics area involves the assembling in the United States of family planning service statistics and from as many LDCs as possible, and the establishment of computer files and programs for processing and analyzing these data. The purpose is to evaluate family planning programs in selected countries and to derive, by means of inter-country comparisons, insights into the factors affecting realization of program goals. The collection of these will be started in FY-72 in conjunction with the workshop activities.

To the extent possible, standard analytical procedures for interpreting demographic and family planning data will be converted to computer programs, facilitating the rapid analysis and comparison of data from numbers of LDCs classified appropriately for analytical purposes. This work will continue some earlier development of computer analytical programs in connection with production of a series of country reports, but will address more varied needs for analyses. This work will continue during the life of the project, with its short-run objectives varying with the changing needs of program planners for analyses.

3. Demographic Data Storage and Retrieval Systems

Work will continue on development of an economical system for the rapid storage, retrieval, and manipulation of population data from LDCs for use in planning and evaluating population programs. Depending upon the frequency of use, required use in complex computations, or other pertinent factors, sets of data will be stored in various appropriate forms and fully documented for quick reference; when appropriate such storage will be in computer files. In order to provide ready access to information about kinds of data available and their location, a computerized directory service

will be put into operation. This directory service will include UN Demographic Yearbook and UN document references to facilitate rapid service of data requirements which can be satisfied by referring to data appearing in these publications. The system will be operated experimentally during FY 1972 and if its value is justified in terms of cost, it will thereafter be continually updated with statistics currently becoming available, and will be used to service data needs of AID/W and missions overseas. Such service will also be extended to AID contractors, international organizations and developed countries sharing U.S. interest in population problems and programs.

The 1970 round of population censuses is producing an increased flow of data, including preliminary census totals which reflect growth trends sometimes inconsistent with previously estimated rates. Moreover, interest in and experiments with surveys and registration systems are growing in developing countries, with the result that there is an increasing volume of demographic data of various origins and levels of reliability. There is, therefore, a continuing need for the exhaustive survey of the availability of demographic data, evaluation of their quality, and knowledge of the status of ongoing data-collection activities. Such work will be closely coordinated with and form an integral part of the general effort described above to foster development of systems to produce the minimum required demographic data for population program uses. The work will also continue to form a basis for working relationships with international organizations and research institutions having parallel interests; these relationships will be used to further develop a recognized community of interest and to promote cooperation in action programs to improve population data capabilities of LDCs.

An additional subject matter for which a data storage and retrieval system will be developed is the collection of family planning service statistics alluded to above. During FY-72 a common basis for organizing information from the various existing systems will be developed and computer programs designed for storing and retrieving such data as well as for displaying them in useful formats.

In order to provide the input and "hard copy" back-up to the DSRS and demographic and family planning profiles, a file of books, documents and papers from which such data are gleaned, must be collected and maintained. In addition, certain non-tabular information used by IDSC staff must also be more readily available than at the Census Library.

The foregoing activity supports the second objective set forth in the summary description: to improve the informational base for population programs and policies.

4. Population Analyses and Projections

Work will continue throughout the life of the project on production of a series of demographic reports for individual countries in response to requests of AID country missions and in accordance with priorities established by TA/POP.

5. Demographic Country Profiles and Family Planning Country Profiles

Work started in FY 1971 will be continued in FY 1972 on the development of a computer system to produce rapidly and in standardized formats, basic data on (1) demographic and related socio-economic data and (2) family planning programs for individual countries. The data contained in each country profile will represent the latest reported data, an adjustment to such data and the current demographic situation. By virtue

of the matrix construction of the data storage, additional processing of such data via standardized computer programs will be possible.

This activity and the preceding activity (Population Analyses and Projections) support the project objective of improving the information base for population programs and policies. They are also a necessary adjunct to the analytical activities described below which support the objective of increasing the capability of the U.S. and developing countries to interpret demographic and related data and employ them in evaluation and planning activities.

The system will be operated via the COMNET terminals currently being used by IDSC and TA/POP. Consideration is being given to publication of these profiles as individual country data sheets are completed. This system will be continually updated and employed for servicing AID/W data needs during FY-73 and FY-74.

6. Analysis of Demographic Factors in Socio-Economic Development

Techniques for analyzing interrelationships of factors affecting (1) economic development, (2) fertility, and (3) effectiveness of family planning programs in LDCs will be further developed and applied during FY-72. The task of incorporating the fertility and family planning sub-model into a general demographic/socio-economic model will also be undertaken. Beginning with FY-72, consultative services will be extended to LDCs and international organizations upon request to help their technicians apply these computer models to development of analytical reports for individual LDCs relating demographic and family planning data to social and economic phenomena. The work on the family planning model will aim at achievement of the capability to estimate commodity and personnel requirements for alternate plans for family planning programs.

7. Participant Training in Population Statistics and Demographic Analysis

This project will finance an expansion of the Census Bureau training program in population statistics, demographic analysis, and related fields. Included is the Bureau's service of planning and monitoring programs of participants studying population subjects at American universities. The number of population statistics participants from LDCs in recent years has averaged about 40 in the Census Bureau's in-house statistical training program and 20 in courses at higher learning institutions. It is anticipated that increased efforts to stimulate LDC programs in demographic and family planning statistics will result in additional participants. Potential increments over recent participant levels are tentatively estimated at approximately 20 participants in FY-72, 30 in FY-73, and 50 in FY-74.

Correspondence course training programs will be developed and implemented for participants in their own countries. They will at first cover survey methods in FY-72, but may later be extended to data processing, family planning evaluation, and demographic analysis methods.

Training programs will also include the special workshops in survey, data processing, family planning evaluation, and demographic analysis methods referred to above. Specialized workshops may be supplemented by clinic or laboratory-type programs. In these, expert supervision would be given to participants engaged in applying their workshop training in specific data processing or survey design projects to meet national needs. Technological innovations developed for the specialized workshops in such areas as computer software, survey methods, etc., will be systematically documented and incorporated in the training program.

A further goal of this activity is to train in demographic analysis and provide technical support to officials of LDCs and population personnel of the U.S. Government, on the basis of population-research-oriented programs at the Census Bureau and abroad. Training will focus on the interpretation of demographic data and the relationships of population trends to related family planning and socio-economic data. Training materials will be developed, a technical support program organized, and seminars will be conducted in the United States during FY-72. Additional seminars and technical support activities will be conducted both in the United States and LDCs during FY-73 and FY-74. These activities will be coordinated with the demographic survey methodology family planning data feedback systems and socio-economic and demographic research activities described elsewhere in this PROP.

8. Consultative Services

The project will entail an expansion of the existing level of advisory services provided through the Census Bureau by making available short-term consultants in accordance with the plan described under "Survey and Data Processing Methodology," above. These consultants may perform a dual function, serving both as advisors to American missions on matters relating to population and family planning data, and as advisors to local government agencies and institutions on technical problems of collecting processing, publishing, and analyzing such data. A major goal of the consultation program will be to achieve more effective ways of rendering maximum advisory services with limited resources.

The project also supports continuing consultative services to all bureaus and offices of AID/W and to all missions overseas on population and family planning data and analyses.

V. COURSE OF ACTION

This project will be carried out under the direction of the Chief, International Statistical Programs Division, United States Bureau of the Census. The organizational units under his direction provide technical assistance to statistical programs in developing countries, participant training in statistical organization and techniques, and consultative and demographic data services to other activities of AID. This project will be able to draw upon the experience of the staffs engaged in these international programs as well as in the Census Bureau's large domestic programs.

The Census Bureau will increase its International Programs staff by employees representing the professional skills and administrative support required for the planned FY-72 activities, as soon as possible after the PASA is approved. These additional positions will principally support the new activities described above under Section IV-1, Population Data Systems - Census and Survey Methods. The budget of the project will also assume support of related training and administrative activities contributing to the development of population data systems. (See detailed budget attached as Appendix A.)

The specific course of action is as follows:

- i. The International Statistical Programs staff will be increased to handle the additional planned work. The additional staff members will concentrate their efforts on (1) survey methodology, (2) computer systems methodology, (3) family planning (FP) data systems and (4) evaluation and analysis methodology for demographic and family planning data. The training, consultative, and administrative staffs will also be strengthened as required by increased responsibilities and workloads.

2." The Survey Methods activities will employ specialists in survey operations, sampling, census mapping, and demographic statistics. They will be available to assist LDCs upon request. They will conduct a continuing investigation of current developments in survey methodology applicable to measurement of fertility, mortality, and age structure in LDCs. Emphasis will be given to practical problems of survey design, including mapping, sample frames and the potentialities of remote sensing techniques for demographic measurement. They will suitably document their research and their field experience for use of other technicians in advisory and training activities. They will prepare specialized workshop presentations in demographic surveys and censuses; these workshops will be held in the United States as well as in LDCs. The staff will be available as consultants to international organizations as well as to AID/W and country missions. It is anticipated that during the first year of the project there will be major demands for their services in support of the African Demographic Statistics Program of ECA, to which the United States has agreed to provide short-term assistance of the type for which the Staff is established.

3. The Computer Methods activities will continue some earlier established developmental work on computer software for the processing of census and survey data. Work on the Census Tabulation System (CENTS) will include transforming it into programming languages which will increase the range of computer models with which it can be employed, thereby increasing the number of LDCs which can take advantage of it. A software package for rapid programming of the editing of census and survey data will be developed; this will be identified by the acronym CENEDIT. Workshops for teaching CENTS, CENEDIT and similar software to LDC programmers will be conducted in the United States and in LDCs. Developmental work will also

be done on standardized computer programs for the processing and analysis of family planning records, evaluation of demographic data, and for performing basic kinds of demographic analyses; these techniques will be taught in workshops. As an auxiliary service to workshop training, the Computer System Staff will be available for follow-up advisory services to help former participants implement the programming techniques taught by the workshops.

Investigations will be conducted on practical bases for employing advanced data processing and printing technology for the rapid processing and publication of results of LDC censuses and surveys, whether in the host country, at overseas regional centers, or at installations located in the United States. The first project of this type may be in response to the request of Paraguay for an evaluation of the possibility of employing the Census Bureau's FOSDIC automated input technique for more rapid processing of their Census of Population.

4. The Family Planning Evaluation activities will entail a training program for a computer-based system of maintaining and abstracting data from clinic records of LDC family planning programs; the system will be designed with the objective of providing rapid feedback of clinic data for guidance of family planning programs. Manuals of instructions will be prepared as well as computer software for performing rapid analyses of program effectiveness. An average of three workshops a year in LDCs and the United States is planned.

A second important aspect of the work will be follow-up advisory assistance on a short-term basis to adapt and install the type of system taught by the workshop.

5. The Demographic and Family Planning Data Analysis Methodology activities will include research on current developments in techniques of evaluating census and survey data and standard types of analyses of both demographic and family planning data for support of policy determination and for use in practical program decisions. These methods will be documented and teaching materials developed for presentation of workshops and seminars for both LDC participants and for United States staff whose duties require knowledge of these kinds of analytical methods. Instruction programs may be prepared on different levels of technical complexity for the benefit of participants with varying levels of background and need. Workshops and seminars in analytical methodology will be presented in the United States and in LDCs, and follow-up assistance by this staff will be made available to requesting LDCs.

6. The training curriculum in population statistics and demographic analysis which has been taught by the Census Bureau to hundreds of participants for several years will continue to be presented. Total enrollment for the courses is expected to increase substantially as a result of the increased effort to develop LDC demographic data systems. Content of the courses will be modified and updated to meet current needs, incorporating appropriate materials developed by the above-described work of the various staffs specializing in survey, computer, and family planning data systems and analytical methods. The basic program consists of the following courses:

Population Statistics and Demography

Population and Housing Census Methods
 World Population Trends and Problems
 Introduction to Population Analysis
 Advanced Techniques of Population Analysis
 Population Projections

Population Statistics and Demography - Contd.

Introduction to Mathematics of Demography
 Demographic Measures from Incomplete Data
 Seminars in Evaluation and Analysis of Census Data
 Population and Family Planning

Principles of Statistics and Sampling

Short Course in Basic Statistical Concepts
 Basic Statistical Concepts and Methods of Analysis
 Principles of Sample Surveys
 Advanced Sampling Seminar
 Introduction to the Control and Evaluation of
 Nonsampling Errors

Survey Technology

Geography and Mapping for Surveys and Censuses
 Design of Survey Questionnaires and Forms
 Publication of Statistical Data

Data Processing

Data Processing Methods
 Systems Analysis and Computer Programming

Case Study Workshops

Atlantida: A Case Study in Household Sample Surveys
 New Florencia: A Case Study for the 1970 Censuses
 of Population and Housing

7. The major features of the modified work program in Demographic Data (Storage, Retrieval, Evaluation, and Analytical Presentation) and in consultative services were outlined above in paragraphs 3 and 4 of Section IV (Planned Targets, Results, and Outputs), and is not, therefore, repeated here.

8. COLLABORATION WITH OTHER AGENCY OFFICES AND MISSIONS

Since this project deals with data and analyses which are important to many offices within and without A.I.D., and since relationships with many developing countries and with various international organizations are incidental to its implementation, the need for frequent consultation by TA/POP with other interested organizations is fully recognized. No statement within

the proposal concerning the provision of advisory services or training to LDC's and international organizations implies any deviation from normal clearance procedures with affected AID offices and overseas missions. As in the past, the responsible officers of AID missions, the regional bureaus and PPC/SR will be consulted on data priorities and the coordination of statistical work. A principal goal of the project will be the rendering of services to other AID offices and country missions in the broad area of demographic and family planning data and analyses.

VI EVALUATION

In view of the "wholesaling" nature of this PASA, the principal responsibility for constructing and implementing a comprehensive and continuing evaluation procedure rests with the Bureau of Census ~~project~~--the Chief of the International Statistics Program Division. This division was recently created under the Associate Director for Demographic Fields to consolidate all AID-supported activities in a single unit. Previously, some activities were under the Assistant Director for International Programs and others (i.e., IDSC) were in the Population Division, which is under the Associate Director for Demographic Fields. The reorganization recognizes the significant role population plays in AID's program by placing AID-supported activities under the Bureau's chief demographer.

The Project Director, in collaboration with TA/POP, will supervise the development of detailed workplans for all subdivisions of the project. The same BuCen office will use these workplans, together with the relevant TA/POP strategy statements, as norms for the continuing evaluation of activities supported by the PASA.

Of course, the TA/POP monitor and others in TA/POP have daily contact with BuCen and will continuously evaluate its activities. In addition, TA/POP

will conduct a more formal joint review with BuCen of these evaluation activities on a semiannual basis. At these reviews, TA/POP will determine whether the evaluation efforts have been adequate and whether special evaluations should be initiated. As needed, TA/POP will call on the expertise of other Agency divisions to pursue in-depth evaluations of particular lines of activity. Finally, the TA/POP monitor of the PASA will receive summary reports of ongoing evaluation findings and will review these findings with BuCen offices as needed.

PROPOSED BUDGET

	<u>FY 1972</u>	<u>FY 1973</u>	<u>FY 1974</u>	<u>TOTAL</u>
Wages and Salaries	\$ 999,163	\$1,245,215	\$1,266,545	\$3,510,923
Travel and Transportation	51,300	51,300	51,300	153,900
Rent, Communications and Utilities	2,900	2,900	2,900	8,700
Printing and Reproduction	9,600	14,600	14,600	38,800
Supplies and Materials	12,900	7,900	7,900	28,700
Computer Services	73,400	73,400	73,400	220,200
Other Contractual Services	94,000	67,800	66,400	228,200
Anticipated Pay Increase	31,388	130,747	208,981	371,116
Demographic Expense	37,092	43,508	46,710	127,310
Overhead (at 18%)	<u>216,403</u>	<u>281,193</u>	<u>300,317</u>	<u>797,913</u>
TOTAL	\$1,528,146	\$1,918,563	\$2,039,053	\$5,485,762

BUDGET SUMMARY FOR PREVIOUS CENSUS PASA ACTIVITIES
COMBINED UNDER THIS PROPOSAL

(In \$ thousands)

	<u>FY 65-69</u>	<u>FY-70</u>	<u>FY-71</u>	<u>Total</u>
Demographic Methods Yearbook	86	8	8	102
Demographic Services	410	557	766	1,733
New Florencia Workshops	173	129	208	506
Correspondence Training	<u>--</u>	<u>21</u>	<u>134</u>	<u>155</u>
TOTAL	669	715	1,116	2,496