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 ISN 29688

AGENCY FOR INTERNATIONAL DEVELOPMENT (A.I.D.)

PROJECT AUTHORIZATION

1. PROJECT NUMBER 31-11-570-808	3. COUNTRY Technical Assistance Bureau	4. AUTHORIZATION NUMBER 0036 Amend. No. 1
2. PROJECT TITLE NEW FLORENCIA WORKSHOPS: FY 1970 Population and Housing Census Model Case Study and Workshop		5. AUTHORIZATION DATE March 19, 1970
		6. PROP DATED Amendment

6#1  
 2806

7. LIFE OF PROJECT

a. Number of Years of Funding: 4  
 Starting FY 19 70; Terminal FY 19 71

b. Estimated Duration of Physical Work  
 After Last Year of Funding (in Months): None

FUNDING BY FISCAL YEAR (in U.S. \$ or \$ equivalent)	DOLLARS		P.L. 480 CCC + FREIGHT	LOCAL CURRENCY Exchange Rate: \$1 =			
	GRANT	LOAN		U.S. OWNED		HOST COUNTRY	
				GRANT	LOAN	JOINTLY PROGRAMMED	OTHER
Prior through Actual FY 1969	174						
Operational FY 1970	129						
Budget FY 1971	203						
B + 1 FY							
B + 2 FY							
B + 3 FY							
All Subsequent FY's							
<b>TOTAL</b>	<b>506</b>						

9. DESCRIBE SPECIAL FUNDING CONDITIONS OR RECOMMENDATIONS FOR IMPLEMENTATION, AND LIST KINDS AND QUANTITIES OF ANY P.L. 480 COMMODITIES

10. CONDITIONS OF APPROVAL OF PROJECT

(Use continuation sheet if necessary)

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

This authorization is contingent upon timely completion 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 <i>Joel Bernstein</i> Joel Bernstein SIGNATURE	CLEARANCES TA/POP, Dr. R.T. Ravenholt (cont'd)	DATE 3/9/70
	Regional Bureaus - at Review	3/12/70
A/Technical Assistance Bureau TITLE	3/19/70 DATE	A/CONT

9320808

NONCAPITAL PROJECT PAPER (PROP)

Country: World-wide

Project No. 931-11-570-72-  
-3140415

Submission Date 3/11/68

Original \_\_\_\_\_

Revision \_\_\_\_\_

Project Title: 1970 Population and Housing Census Model Case Study  
and Workshop Program - New Florencia Workshops

U.S. Obligation Span: FY 1968 through FY 1970

Physical Implementation Span: FY 1968 through FY 1970

Gross life-of-project financial requirements:

U.S. dollars . . . . . \$ 258,970

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P808

I. SUMMARY DESCRIPTION

While population censuses, even in many of the less developed countries, have been the major source of demographic data for many decades, it has been only within the last 10-20 years that serious errors and data gaps have been clearly revealed. The establishment of national development plans has emphasized government needs for reliable, complete, and timely data relating to the characteristics of the population. Concern with the quality of census data has been a relatively recent manifestation even in the developed countries. For example, it was not until the 17th decennial census of the United States in 1950 that a sample survey was taken immediately after the census in order to obtain estimates of undercoverage, determine errors in age reporting, and to generally assess the quality of the enumeration.

The move toward national family planning programs in the less developed world has highlighted even more sharply the requirements for reliable bench-mark population data. Such data, in most countries, may comprise the only national population statistics inventory, for as long as a decade, and form the base of the population projections so indispensable in national planning. Moreover the importance of population data is accentuated by the rapid changes in population that are taking place. The precipitous fall in the death rate that many less developed countries have experienced, combined with a continued high-level of fertility, has produced a rapid and accelerating increase in numbers. Reliable and timely data became prerequisite for the evaluation of population and family planning programs. Hence, the project is directed to the improvement of the 1970 population censuses in the less developed countries by the use of systematic and tested training techniques which are expected to have a direct effect upon the national censuses of the less developed countries, particularly those which will participate in this program.

More than 100 developing nations will participate in the 1970 world population and housing census program. However, unless certain technical, conceptual and design problems are resolved, the 1970 censuses will have a limited usefulness. This project will endeavor to: (1) demonstrate by means of a model census procedural plan how these problems may be resolved, (2) promote the use of this model in the developing countries by means of the U.S. Census Bureau world-wide workshop program and (3) dramatically improve the usefulness of the censuses for population and family planning.

Censuses of developing nations are considered to have a limited usefulness insofar as policy making, development planning, and special social action programs are concerned because:

- (1) results take too long to be completed
- (2) the reliability of critical data is questionable
- (3) informational needs are not being adequately met

In other words the usefulness of the 1970 population and housing censuses will be a function of three factors: timeliness, reliability and data adequacy. The impact of these factors may be better visualized and quantified by the following formula which provides an index of the usefulness of a population and housing census for a given cost:

$$\sqrt{\text{Timeliness} \times \text{Reliability} \times \text{Adequacy}} = \text{Census Utility Index (CUI)}$$

In this formula each factor would have a rating on a scale from 0 to 1 in accordance with the extent to which it satisfies the criteria set down for it. The Census Utility Index is the geometric mean of the ratings assigned to each factor.

This project will attempt to upgrade significantly the Census Utility Index of the 1970 Censuses of Population and Housing to be carried out by the developing nations of the world. The project will consist of the following activities:

- (1) Creation of a 1970 Population and Housing Census procedures model for developing nations.
- (2) Promotion and instruction in the use of the model through the AID-sponsored Bureau of the Census world-wide workshop program.

The model would utilize the case study approach, as developed by the Census Bureau, and will be referred to as New Florencia: A Case Study in Taking the 1970 Population and Housing Census. The case study would

be so designed that its procedural elements could be easily incorporated into the 1970 census plans of developing nations. Countries that do this should achieve a significant improvement in their Census Utility Indices.

The Census Bureau world-wide workshop program will (a) introduce the case study, New Florencia, to the foreign technicians responsible for planning the 1970 Population and Housing Censuses of their countries, and (b) provide instructions in its use. The workshop program would be two-phased to produce a continuing multiplier effect. In the first phase the foreign technicians would study the materials contained in New Florencia over a 2-month period at the Bureau of the Census. At that time, they would also be trained to serve as workshop directors of the New Florencia case study. During the second phase, these technicians would organize and conduct one or more national workshops on New Florencia for 10 to 15 other census technicians in their own countries.

To carry out this project will require a staff of 6 full time employees by the end of fiscal year 1968, 7 full time employees during fiscal year 1969, and 2 employees during fiscal year 1970. Personnel will be drawn from the Bureau of the Census staff. The grade levels assigned to particular positions are as deemed necessary by the Bureau of the Census in the light of a realistic evaluation of the levels of compensation now commanded by specialists of the caliber sought. It may be possible to assign some persons at grades lower than specified in the budget plan, with some savings accruing to the project.

The project director would be the Chief of the International Statistical Training and Workshop Office, Bureau of the Census. Complementary technical, logistical and administrative support will be provided by the staff of this office. Supervisory and complementary support costs will not be charged to the project during the fiscal year 1968. The professional staff will include 2 mathematical statisticians, GS-15; a computer programming specialist, GS-15, and a survey statistician, GS-15.

The professional staff would be assisted by an assistant, GS-9, and a clerk-stenographer, GS-5. During fiscal year 1969, a workshop instructor, GS-15, will be added to the professional staff. In fiscal year 1970, this staff will be reduced to a workshop instructor and the clerk-stenographer.

This project would run for about 2½ years with an option for extension. Expected costs are \$41,318 for fiscal year 1968, \$157,002 for fiscal year 1969, and \$60,650 for fiscal year 1970. Costs may be subject to small increases, to reflect in-grade salary increases as provided by law. (See Attachments )

## II. SETTING OR ENVIRONMENT

About one billion dollars will be spent by the developing nations of the world on their 1970 Censuses of Population and Housing. These censuses have the design capability of being the most useful source of information for population and family planning; census results are also most effective in planning social and economic development, apportioning government funds, and providing a numerical basis for the conduct of democratic elections.

Unless the technical, conceptual, and design problems are resolved, the 1970 population and housing censuses will not be much more effective than the 1960 censuses. Furthermore, the informational requirements for population and family planning need to be met much more adequately than previously envisioned by the planner of the 1970 censuses.

Experience has shown that the case-study and work-shop approach as developed by the U.S. Bureau of the Census has the most effective potential in relation to cost for introducing new techniques in censuses and surveys. Previous case studies and workshops funded by the Agency for International Development have had a profound impact on the fact-gathering techniques of the developing nations. Providencia: A Case Study in Economic Censuses was first introduced in 1963 and has significantly affected census methodology. First presented in 1965, Atlantida: A Case Study in Household Surveys is revolutionizing the household survey technology of the developing nations. Agrostan: A Case Study in Agricultural Census Planning is currently being developed for world-wide presentation and promotion through the Census Bureau world-wide workshop program. Florenca: A Case Study in Population and Housing Censuses was presented originally in 1961 and was primarily concerned with accelerating the data processing of census results. Although Florenca was promoted too late to have the impact desired on the 1960 censuses, many of its procedures (such as the editing and coding, quality control techniques) were adopted by a number of countries. This project will update and expand the Florenca case study to meet the technical, conceptual and design needs of the 1970's.

## III. STRATEGY

Census practices can be improved by (1) making available census experts as advisors to developing countries and (2) training foreign technicians to carry out their census responsibilities in a more effective manner. Both technical assistance methods have been used in a complementary fashion. The census expert, provided by an international agency or the AID, generates requests for training of national government technicians at recognized international instructional centers. However, the impact of this approach has been limited in its effectiveness because (1) census experts are in short supply, (2) training is provided generally after the census plans were formulated, and (3) training is not necessarily directly keyed to the objective of improving the census, as much as it

is to provide the participants with background knowledge and skills. In addition, due to the specialized nature of their profession, census experts cannot be equally proficient in all fields.

Developing a comprehensive model to achieve specific utility goals, on the basis of the best available technology, would be appropriate for all developing countries -- not just for those with international census experts helping them. Nevertheless, the model would also be of considerable use to international census experts providing technical assistance.

The workshop program is designed to maximize the use of the case study model through a multiplier effect, and at a cost which compares very favorably with other methods. Two technicians from each country are trained in the case study model over a 10-week period. Upon completing their training, these technicians return home and train their fellow technicians in the case study model at national workshops conducted at no, or practically no cost, to the AID. In this way, if the workshop program is properly implemented, it will introduce the methods and techniques desired with a minimum of consultation requirements. This would also enable technical assistance agencies to make more effective use of scarce consultative resources.

It is also intended to use as basic input of the case study the U.N. recommendations on data to be collected, on the tabular formats, and on techniques relating to improving coverage and general quality of the censuses.

This activity will directly support the achievements of U.S. objectives in relation to family and population planning by enabling countries to improve the utility of their censuses.

The case study and workshop program was funded by the Bureau for Latin America, AID from 1961-1967. During this period it was directed primarily at the Latin American nations. Because of its general applicability, however, the case study and workshop program was converted to a world-wide activity in FY 1968, and is funded jointly by the Office of Procurement (AID) and the Office of International Training (AID). Due to the close relationship of the project to the program objectives of the Office of the War on Hunger, it is recommended that the latter office rather than the Office of International Training assume the sponsorship of this project.

#### IV. PLANNING TARGET, RESULTS AND OUTPUT

##### THE NEW FLORENCIA CASE STUDY

##### Methodology

Case study techniques make it possible to present in a realistic fashion meaningful and easily adaptable procedures and designs covering a wide

range of technical processes. A fictitious country is created by providing it with a land area, administrative subdivisions, a population with given characteristics, etc. The principal statistical agency of the country is considered to be in the process of planning the different phases of a statistical undertaking. Conceptual considerations are developed, and exhibits of questionnaires, table formats, and procedures are prepared. It is intended that these case study materials be incorporated in the 1970 Population Housing Census Plans of the developing nations. As a consequence, the Census Utility Indices of their censuses would be dramatically increased.

The New Florencia case study will feature units on the following:

(A) Accelerating the data processing of Census results

Census experts stress the necessity of rapid processing of results on the grounds that the dynamics of change make data continuously less useful over time. On the average, the developing nation takes more than 4 years to compile important cross-classifications on characteristics and by needed data for small areas. Since population and housing censuses are generally conducted every 10 years, it may be assumed that census data lose about 10% of their usefulness every year.

This unit of the case study would upgrade the Timeliness Rating of the Census Utility Index. A systems approach to computer and related data processing programs will be developed which will be aimed at processing the principal census results within one year after the enumeration. A country which achieves this goal would have a Timeliness Rating of 1 in its Census Utility Index.

It is intended to accomplish this by developing a procedure for processing a demographic census on a computer utilizing FORTRAN or a similar generalized language.

The content of the census and the publication tables will be based on the recommendations of the Population Branch of the United Nations and on recommendation of the appropriate Regional Commission of the United Nations.

The program for technical assistance in the processing of population censuses on computers will include standardized programs to perform the following operations:

1. Edit the basic record and allocate selected characteristics where not reported.
2. Assign weights to sample cases for tabulation.
3. Prepare the basic tabulations.
4. Consolidate basic tabulations to publication areas.
5. Prepare publication tables.

The computer programs for these operations will be written in FORTRAN or a similar generalized language so that they can be modified to conform to the specific content of the census schedule in a country, to the modified tabulation requirements or a different computer configuration.

A model set of programs will be prepared and tested to demonstrate the technique of processing the census materials from basic input documents to the preparation of publication tables.

This tabulation procedure will be integrated with a set of procedures relating to all aspects of the design and operation of a population census. The tabulation procedure will indicate the consistency checks and recoding operations that will be performed by the computer and need not be performed manually, such as the count of total persons in household, persons per room, and recode of labor force status.

The tabulation procedures will be presented in the following form:

1. A manual outlining the specific content and operation of the various computer programs.
2. Decks of punch cards containing the FORTRAN Source Decks for the various programs.
3. Illustrative examples of the input and output of the various programs.
4. Directions for the modification of the programs to meet local conditions.

(B) Sampling applications

The sampling applications presented in the case study would be designed to improve the Timeliness and Adequacy ratings of the CUI as well as to reduce the cost of the census. Sampling is an exceedingly effective tool for this purpose. This has already been demonstrated many times in countries at all stages of development. The sampling applications would have three objectives: (1) to expand the capability of the census to collect substantially more information than would be possible in a 100 percent enumeration, (2) to reduce processing costs and the usually extended periods of time involved in verification of editing, coding and keypunch operations, and (3) to provide advance tabulations of census results.

The utilization of sampling to increase the collection capability of the census would enable the census planners to collect data needed in such priority areas as fertility, and education and economic characteristics. The application of sampling techniques to reduce the time involved in verification activities and to provide advance tabulations would aim at completing the processing of census data within 1 year after the enumeration period. If this objective is achieved, it would contribute significantly toward upgrading the Adequacy Rating of the CUI of the developing nations.

The three major applications of sampling to be described in this unit would be as follows:

1. Collection of a large portion of the data on a sample basis, e.g., for every *k*th household. Only a few basic items, such as sex, age and marital status, would be collected for everyone. Such a system would substantially reduce both collection and processing costs, as well as the time required to process the data. At the same time, there would be little if any reduction in the reliability of the data, even for small areas such as cities, sub-districts, etc.
2. Verification of editing, coding and keypunch operations on a sample basis. Using proven quality control techniques, the outgoing quality of these operations would be maintained at an acceptable level. Processing costs and calendar time would be substantially reduced.
3. Advance tabulation of selected data for States or provinces and larger regions on sample basis. By processing and tabulating a relatively small sample of questionnaires (say 1 or 2 thousand per State), detailed tabulations will be provided for States and larger areas within not more than 6 months after the start of the Census enumeration.

Incorporation of the above three applications of sampling in a country's census plan should substantially improve its CUI as well as reduce the overall cost of the Census.

### (C) Quality Control of the Enumeration

This unit will include adaptable quality control procedures designed to improve the completeness of coverage and the accuracy of the data. It is expected that the use of such procedures will exert a profound upward effect on the Reliability Rating of a country's CUI. It is also hoped to be able to develop an experimental design that will endeavor to measure the effect of having used the quality control procedures.

Of necessity, the census enumeration must be carried out in a short-time interval by large numbers of relatively untrained people. Unless adequate techniques for training and supervising census enumerators are carefully developed, the quality of the results will suffer.

The case study will recommend appropriate methods for training the field staff -- the enumerators in how to enumerate, and the supervisors in how to supervise the enumerators.

The quality control system will involve a pyramiding system of checks to control the quality of the enumeration through:

1. Preparatory supervisory procedures that will involve: (a) a systematic reconnaissance of enumeration areas, (b) map review or preparation, and correction, (c) sequencing of enumeration units to facilitate checking, (d) estimates of housing units, (e) identification of places requiring special enumeration such as hotels, etc.
2. Processing Control procedures for supervising the work of enumerators. Such procedures require the (a) establishment of well-defined standards that must be met during the enumeration, and (b) a review method to apply these standards.

These procedures would be used by supervisors to ensure that census enumerators are filling questionnaires according to instructions and are covering all dwelling units and individuals in their assigned enumeration areas.

3. Processing Control procedures for evaluating the work of field supervisors.
4. Acceptance Sampling procedures for accepting or rejecting completed sets of Enumeration Area questionnaires.
5. Procedures for checking in enumeration materials received from the field at the central processing location, making preliminary counts and related checks to insure that there were no gross omissions during the enumeration.
6. An administrative structure to apply the quality control techniques effectively.
7. A training program designed to instruct all administrative levels in the use and interpretation of the quality control system.

(D) Evaluation of Census Results

While the inclusion of evaluation procedures as part of the census plan will not affect the reliability of basic census results, the use of these

techniques in many countries will represent the difference between acceptance or rejection of the census. The use of evaluation procedures will also improve the accuracy of census results by providing an objective measure of their quality and by making adjustment factors available. Over two or more censuses the knowledge gained from evaluation studies contributes to fundamental improvement in census procedures and hence in the basic data.

This report will describe three basic methods of evaluating the results of the population census:

1. Demographic analysis

Demographic analysis will include comparisons with projections based on previous censuses and internal analyses of items such as sex ratios and age distributions from the current census. Current census totals will be checked against data from other sources such as administrative head count or house counts, voting registers, special local censuses, etc.

2. Reenumeration studies of content and coverage error

This would be an intensive independent enumeration to be carried out in a small sample of areas by a staff of specially trained enumerators during the census period. The results of this check would be compared with those of the census in order to provide estimates of the completeness of coverage, and the extent of reporting errors in particular items such as age.

Estimates would be obtained of coverage error, allowing for measurement of both under- and over-enumeration. Coverage errors consist of both omissions and duplicate reporting of persons and housing units in the census.

Estimates would also be obtained of content errors for selected items. Errors in the assignment of persons or housing units to an incorrect classification are called content errors. For example, if a person is in the age group 20-24, then, a content error may arise from his omission in this age group, and a corresponding improper inclusion of this person in another class.

3. Supplementary measurements of coverage error of special classes and groups

Reenumeration surveys tend to miss a certain number of persons from special population classes and groups not enumerated during the census. The coverage of both the census and the post-enumeration survey appears to be deficient among persons without a close attachment to a particular household or dwelling or in special identifiable groups.

A special study would be designed to measure undercoverage in the general population and of special groups (minorities, old-age groups, servants, students, etc.).

(E) Action-oriented Data System Design

This involves the development of a census plan which would include (1) a basic questionnaire capable of extremely rapid tabulation based on standardized procedures, (2) supplemental questionnaires on fertility, internal migration, education, etc. to be used in conjunction with the basic questionnaire, (3) a sample design which would permit collecting and publishing information at the minor civil division level, (4) a publication program specifying the data to be tabulated by type, detail and administrative level, and (5) a procedure for constructing a frame through which intercensal population surveys will be carried out for updating as well as providing additional demographic information. This census design would result in a maximum value for the Adequacy Rating of the CJI.

In previous decades, the amount of information collected has been rigorously limited because of the high cost of the censuses. Through the judicious use of sampling, it is intended in this case study to demonstrate how high priority information on such topics as fertility may be collected and published so as to be useful for governmental small-area action programs as well as on a national basis.

Furthermore, to anticipate the need for an intercensal frame, and to incorporate procedures for developing it in the census design would extend and expand the utility of the census in behalf of other surveys which provide needed current data.

ROLE OF CENSUS BUREAU WORKSHOPS

The workshop program would have three aims:

1. Promote the use of the New Florencia case study model in the 1970 round of censuses.
2. Train selected foreign technicians in the techniques contained in New Florencia.
3. Train technicians to conduct national workshops providing instruction on New Florencia.

General Plan

During 1969 and 1970, workshops would be conducted consecutively in two stages:

1. World-wide workshops would be carried out at the Bureau of the Census for two participants from each of the developing nations.
2. National workshops would be carried out in each of the developing nations under the direction of the participants previously attending the U.S. Bureau of the Census world-wide workshops.

Participants would be trained in the preparation of statistical plans, procedures and questionnaires. The relationships of conceptual inputs to tabular

output: would be analyzed, and the impact of modern techniques and technology on the Statistical process would be studied.

This program may well prove to be the most important training resource for the professional staffs of foreign statistical agencies. In the next few years, these statistical agencies will find it increasingly difficult to release key technicians for one or more years of conventional intermittent training or re-training at regional or other centers. The need, therefore, for on-site, effective, short-term training will become very acute as planning and technical staffs become more deeply committed to an overlapping number of statistical activities of great sophistication.

#### Guidelines

In developing the workshops, the following guidelines would be used:

1. Provide technicians of developing nations with the opportunity to participate at minimum cost to all concerned.
2. Enable national statistical agencies to participate as often as needed, repeating whenever necessary the same case study and workshop program.
3. Maximize the impact of the case study material on the statistical activities to be actually carried out by the developing nations.
4. Introduce a feedback procedure in the program to evaluate and improve the program.

#### Some problems

The workshop program will attempt to resolve in a satisfactory manner such problems as:

1. Availability of only a limited number of qualified instructors.
2. Multiplicity of languages, many of which are uniquely national.
3. Differences among countries within a geographic region and differences among regions that may require adaptations in the materials.

### WORLD-WIDE WORKSHOPS

#### Objectives

World-wide workshops would be held at the U.S. Bureau of the Census. They would have two major objectives:

1. Provide guidance on how to organize and direct national Statistical workshops in which case studies will be the principal reference source.
2. Introduce, and provide instruction in, the case study and complementary materials to be utilized in the national workshops.

### Number of workshops and their duration

It is proposed that four different world-wide workshops be held at the U.S. Bureau of the Census during the period 1969-1970. The workshops would be held in March 1969, June 1969, September 1969, and March 1970. In total, as many as 100 participants may be expected to attend. The workshops may be organized and held for each of the four AID regions as a way of accommodating the 100 participants. The duration of each world-wide workshop would be 8 weeks.

### Participants

Two participants from each of the developing nations would be invited to attend the world-wide workshops. Participants will be designated as "national workshop directors" for their countries. Participants will also need to meet English language requirements set by the U.S. Bureau of the Census. Funding will be by USAIDs for AID-sponsored participants. UN fellows and national government grantees will also be accepted.

Other participants would include instructors from regional training centers, international consultants and other technicians, who in turn would be called upon to provide professional staff support to the national workshops. The workshops will also be made available for AID population officers, as scheduling permits.

### Structure of the program

The workshop program will be divided into two parts. During the first part, participants will be instructed in the use and contents of the case study materials; a period of 6 weeks has been scheduled for this purpose. The second part will be devoted to a study of how to organize a national workshop, and will extend over a 2-week period.

## NATIONAL WORKSHOPS

### Objectives

National workshops would be organized to:

1. Identify the major problems, together with relevant criteria and considerations, for each of the different phases of the statistical activity with which the case study is concerned.
2. Provide adaptable case study solutions to the problems presented (in the form of procedures, questionnaires, designs, etc.
3. Study applied theory and technology.
4. Reinforce understanding of the case study materials through comprehensive series of written assignments.
5. Initiate the development of plans, procedures, and other materials

for the actual statistical activity to be carried out in the country.

#### Number of workshops and their duration

The national workshop directors would be expected to organize a national workshop program within 2 to 3 months after attending the world-wide workshop at the U.S. Bureau of the Census. A preliminary goal of 30 national workshops will be set. Each national workshop may be repeated as often as necessary.

Formerly, workshops were designed to be conducted at the regional level. A duration of 40 six-hour days was considered the maximum period that participants could be away from their countries and still benefit from the workshop program. Conducting the workshop in the country itself removes these limitations to some extent.

#### Organization and participants

The national workshop directors would be responsible for organizing and directing all workshops in their countries, and for carrying out the instructional phases. Participants in national workshops should be technicians responsible for planning the different phases of the statistical activity with which the case study is concerned. Ideally 10 to 15 persons should participate in a national workshop.

### ORGANIZATION AND ADMINISTRATION OF THE WORKSHOP PROGRAM

#### Responsibilities of the U.S. Bureau of the Census

It is proposed that the U.S. Bureau of the Census be responsible for carrying out the following functions:

1. Develop and update the case study materials.
2. Organize, schedule, and conduct world-wide workshops.
3. Participate in arrangements leading to the designation of national workshop directors and national case study directors.
4. Maintain liaison with the national workshop directors and national case study directors.
5. Cooperate with national directors in the conduct of national workshops.
6. Coordinate the workshop program with the training activities of the international or regional agencies.
7. Arrange for the possible translation of the case study and related materials into Spanish and French.
8. Distribute kits of case study materials to national workshop

9. Establish requirements for certificates of accomplishment.

Responsibilities of foreign statistical agencies

It is recommended that the agency which employs the national workshop directors have overall responsibility for organizing, scheduling, administering, and conducting the national statistical workshops.

POTENTIAL MAGNITUDE OF WORKSHOP PROGRAM

About 100 developing nations are eligible for the workshop program.

If 2 technicians from 50 of these countries participate in the world-wide program, approximately 100 national workshop directors would be trained.

The 100 directors, in turn, would organize national workshop programs to train technicians in their own countries. Assuming 10 to 15 participants in each country, about 600 statisticians would be trained in the New Florencia national workshop program.

There are two principal multiplier effects for each workshop in this program:

1. The U.S. Bureau of the Census would train 2 technicians from each country. These 2, in turn, would be responsible for the training of 10 to 15 other national statisticians.
2. The same national workshop may be repeated as often as needed. Consequently, there is no limitation on the number of participants to be trained in any country.

V. COURSE OF ACTION

This project will be carried out under the general direction of the Assistant Director for International Statistical Programs of the U.S. Bureau of the Census. The organization units under his direction provide technical assistance to statistical programs in developing countries, participant training in statistical organization and techniques, and consultative 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 program.

Subject to its ability to recruit personnel as planned, the Census Bureau will, during the portion of FY 1968 remaining:

1. Develop the specific criteria and related quantitative measures for a Census Utility Index. This Index would be used to (a) determine the specific areas of improvement required by a developing nation in preparing its census plans, and (b) evaluate the overall effectiveness of the census.

2. Complete the specifications for the different units of the case study New Florencia.
3. Develop first drafts of the following case study units:
  - a. Accelerated Data Processing of Census Results
  - b. Sampling Applications
  - c. Quality Control of the Enumeration
  - d. Evaluation of Census Results
  - e. Action-oriented data system Design
4. Communicate with AID Missions and developing countries on selection of workshop participants for world-wide workshops.
5. Communicate with developing nations on different aspects of their 1970 population and housing census plans.

During FY 1969, the Census Bureau will:

1. Complete all aspects of the New Florencia case study.
2. Conduct world-wide workshop for two technicians from each of the developing nations.
3. Monitor the national workshops conducted by the participants who had previously attended the world-wide workshops.
4. Follow-up on the introduction of the case-study model in the census plans of participating, developing nations.
5. Evaluate the utility of censuses in which aspects of the New Florencia case study have been incorporated.

The work to be handled under this project during FY 1970 will be basically a continuation of the FY 1969 program, subject to such modifications as may appear desirable in the light of AID's changing needs and interests and of the experience in the carrying out of the project through FY 1969. However, since the largest number of national censuses will be actually conducted during 1970 and 1971 there would be emphasis on follow up by Census in the participating nations. Accordingly the budget includes a sizable allocation for travel costs.

The personnel assigned to this project will be detailed to the Chief, International Statistical Training and Workshop Office, Bureau of the Census.

AID-2-3 (6-64) PASA BUDGET PLAN By Object Class	PARTICIPATING AGENCY SERVICE AGREEMENT WITH Department of Commerce Bureau of the Census BUDGET PLAN FOR FY <u>1968</u>	AMOUNT <u>1,318</u> APPROPRIATION 72-1181004 ALLOTMENT 854-31-099-00-20-81	PASA CONTROL NO. WOE (CA) - <u>68</u> Page <u>1</u> of <u>1</u> Pages
		P/O/T NO. New Florencia Workshops	

Position	Class. Grade	FC Grade	Rate	Mon <del>XXX</del> Months	Salary	Differ- ential	11	12	21	22	TOTAL
							TOTAL	Personnel Benefits	Int'l. Travel	Transportation of Things	
Statisticians for Preparation of Materials:											
Accelerating Data Processing (Edward Brunzman)	GS-15/10		\$23,921	3 Mos.	\$5,980		\$5,980	466			\$6,446
Sampling Applications (Robert Hanson)	GS-15/4		20,243	3 Mos.	5,061		5,061	395			5,456
Quality Control & Evaluation (Jack Ingram)	GS-15/2		19,017	4 Mos.	6,339		6,339	494			6,833
Question-Oriented Census Design (Edward Swan)	GS-15/6		21,469	3 Mos.	5,367		5,367	419			5,786
Statistical Assistant (to be recruited)	GS-9/1		8,054	4 Mos.	2,685		2,685	209			2,894
Stenographers (to be recruited)	GS-5/1		5,565	3 Mos.	3,712		3,712	290			4,002
							<u>29,144</u>	<u>2,273</u>			TOTAL \$31,417
								21	Travel in U.S.		200
								23	Rent, Communications, Utilities		2,000
								24	Printing		500
								26	Supplies and Materials		1,150
								31	Equipment		

Best Available Document

Overhead 18 % 6,051

GRAND TOTAL \$41,318

APPENDIX D

MID-2-3 (6-64) PASA BUDGET PLAN By Object Class	PARTICIPATING AGENCY SERVICE AGREEMENT WITH: Department of Commerce Bureau of the Census Estimated BUDGET PLAN FOR FY <u>70</u>	AMOUNT: \$57,500 APPROPRIATION	PASA CONTROL NO. WOH(CA)-68	Page <u>i</u> of <u>1</u> Pages
		ALLOTMENT	PROJ/T NO. New Florencia Workshops	

Position	Class. Grade	FC Grade	Rate	Man Months	Salary	Differential	.11	.12	.21	.22	TOTAL
							TOTAL	Personnel Benefits	Int'l. Travel	Transportation of Things	
Workshop Instructor		GS-15	\$21,469	12			\$21,469	\$1,675			\$23,144
Work-Stenographer		GS-5	5,565	6			2,783	217			3,000
							<u>24,252</u>	<u>1,892</u>			

International Travel and per diem of staff which will monitor the national workshops.

\$20,000

	TOTAL	\$26,144
21 Travel		20,000
23 Rent, Communications, Utilities		4,000
24 Printing		1,300
26 Supplies and Materials		000
31 Equipment		--

Overhead 18 % 8,306

Estimated Per Diem: 34,000

FY 1970 Estimated GRAND TOTAL 60,600

APPENDIX

AIC-2-3 (6-64)  PASA BUDGET PLAN By Object Class	PARTICIPATING AGENCY SERVICE AGREEMENT  WITH: Department of Commerce Bureau of the Census Estimated BUDGET PLAN FOR FY <u>69</u>	AMOUNT: \$154,002	PASA CONTROL NO.	Page <u>1</u>
		APPROPRIATION	WOH(CA)- -68	of <u>1</u> Pages
		ALLOTMENT	PIO/T NO. New Florencia Workshops	

Position	Class. Grade	FC Grade	Rate	Men Months	Salary	Differ- ential	11	12	21	22	TOTAL
							TOTAL	Personnel Benefits	Int'l.* Travel	Transportation of Things	
<u>Statisticians for</u>											
<u>Preparation of Materials:</u>											
Accelerating Data Processing		GS-15	\$21,469	10	\$17,890		\$17,890	\$1395			\$19,285
Sampling Applications		GS-15	21,469	10	17,890		17,890	1395			19,285
Quality Control & Evaluation		GS-15	21,469	10	17,890		17,890	1395			19,285
Action-Oriented Census Design		GS-15	21,469	10	17,890		17,890	1395			19,285
Statistical Assistant		GS-9	8,054	10	6,720		6,720	524			7,244
Clerk-Stenographer		GS-5	5,565	12	5,565		5,565	434			5,999
<u>Workshop Instructors (4)</u>		GS-15	21,469	12	21,469		21,469	1675			23,144
							<u>105,314</u>	<u>8213</u>			<u>113,527</u>
									21	Travel - US & abroad	4,000
									23	Rent, Communications, Utilities	4,500
									24	Printing	10,000
									26	Supplies and Materials	4,000
									31	Equipment	--

Overhead 18 % 25 75

Estimated Per Diem:

FY 1969 Estimated GRAND TOTAL