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International Health Programs  
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An Evaluation of the  
POPSTAN Program,  
Carried Out by the  
U.S. Bureau of the Census,  
1978-1982

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### Acknowledgements

This evaluation began in late July 1982 with a visit by a team member to Sierra Leone. Following team meetings with staff members of the Agency for International Development (AID) and the Bureau of the Census (BuCen) in August, the other team members visited, respectively, Indonesia and the Philippines, and the Philippines plus the East-West Population Institute in Honolulu. A team member also met with staff at the United Nations Statistical Office in New York, and team members contacted other relevant groups and individuals regarding the Popstan program. The team met in Washington again in September, and a draft report was presented to AID and BuCen November 5, 1982. At the end of November, BuCen provided additional data and information.

The team expresses its sincere appreciation to all of the individuals who provided information and insights about the Popstan program. Many staff members at the Bureau of the Census and the Agency for International Development provided tables and background documents, and they cheerfully answered our many questions. In addition, we extend grateful thanks to the participants in 1982 and previous workshops who kindly met with us to discuss their training experiences and to the officials in the statistical departments and USAID offices of Sierra Leone, Indonesia, and the Philippines, who discussed with us the training materials and workshops. The names of many of these individuals appear in the trip reports appended to this evaluation.

We also want to thank the American Public Health Association for arranging schedules for overseas travel, appointments with staff at the Bureau of Census and elsewhere, and the staff members at the United Nations Statistical Office and the East-West Population Institute for the time they spent reviewing the program with us.

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## EXECUTIVE SUMMARY

AID should continue to support a Resource Services Support Agreement (RSSA) with the United States Bureau of the Census (BuCen) to carry out a program of workshops and training materials development. This work should be designed to improve the organization and implementation of censuses and related demographic data collection methods in developing nations. For this program, the Bureau can provide skills and relevant experience not easily obtained elsewhere. In addition, the Bureau has developed a network of bilateral and international contacts and working associations with statistical organizations around the world that offers at least three advantages for the RSSA arrangement. First, BuCen is able to draw on the information and experience gained from these contacts and associations when organizing workshops and preparing training materials. Second, AID support of BuCen projects furthers the United States' interest in maintaining and strengthening ties between statistical organizations in this country and in other countries. Third, at the staff working level, there is an understanding of government processes and procedures such that in theory RSSA's should provide flexibility and efficiency that might not be so easily obtained if AID contracted the POPSTAN work to non-government institutions.

However, on the basis of the evaluation of the POPSTAN program during the past five years, the team concludes that a better job can and should be done. BuCen can improve its performance on the development of census-related training materials and on the implementation of workshops. AID can assist in this process through improvements in budget planning and liaison with USAID missions. We encourage a continuation and strengthening of the inter-agency collaboration, at the staff level, that is necessary for the smooth and efficient implementation of a RSSA. This report describes several problems that need attention, and it offers suggestions for improving performance. The team recommendations are attached to this summary.

During 1978-1982, AID provided about \$2.8 million to BuCen for the development of training materials and the implementation of some 25 census and mapping workshops.<sup>2</sup> In the early part of this period, a substantial proportion of the funds each year was programmed for developing training materials, the seven POPSTAN manuals and the two mapping manuals. In 1981 and 1982, the budgets were decreased, in part because the English language materials had been almost completed, and in part because the annual number of workshops was reduced from about six to three. The amounts available per workshop, excluding participant funds for travel and per diem costs, ranged from \$27,200, in 1979 to \$38,300 in 1981. The person months of professional staff time per workshop (GS 11 and above) provided by the RSSA averaged about six in 1979 and 7 to 9.5 in subsequent years. In addition to the BuCen staff paid for under the RSSA, the Bureau contributed significant amounts of staff time

for program activities, about one fifth of the 397 total professional person months devoted to POPSTAN activities 1978 through 1982.

### Training Materials

The seven POPSTAN and two mapping manuals constitute a valuable set of resource and training materials. In particular, the mapping manuals receive high praise from users and cartographic scholars who work on developing nation censuses and surveys. The U.S. orientation of these materials is a slight but not compelling drawback. However, future training materials should have a greater developing nation focus and more inclusion of LDC examples; two recent methodological reports by the NAS Committee on Population and Demography make extensive use of LDC data and examples, as do several United Nations publications.

The preparation of the nine training volumes took longer than either AID or BuCen anticipated in 1977, in part because it took two years to develop for POPSTAN an outline that minimized repetition and compartmentalization, and to develop a questionnaire and a data collection plan that were acceptable to AID, the UN, and the users. (It was originally planned that the POPSTAN and mapping volumes would be ready for use by many countries in their 1980-round censuses.) As the early deadlines passed, and revised deadlines were agreed upon by AID and BuCen. All of the English language volumes were completed by 1979, except Volume F in 1981. The French and Spanish translations began appearing in 1980; some translated volumes are still in preparation.

The team does not believe that BuCen should prepare a complete new set of census planning documents for the 1990 round of censuses (e.g., for Poplandia). Despite some idiosyncracies in POPSTAN, a total overhaul is unnecessary. A principal reason for this belief is that the United Nations is maintaining for the 1990 round of censuses essentially the same guidelines as used for the 1980 round, and these guidelines were correctly incorporated into the POPSTAN materials. However, selected parts of POPSTAN should be updated (see recommendation 2-2 below).

### Workshops

During 1978-82 BuCen provided training for the 1980 round of censuses to personnel from 39 countries. Participants from 36 and 27 countries attended POPSTAN and mapping workshops respectively. Several organizational formats have been used: country specific for either POPSTAN or mapping training; regional for either POPSTAN or mapping training (bringing together participants from several countries in a region); regional for a special topic--census evaluation. Sixteen workshops were held in developing nations FY 1979-1982.

Judging from the small sample of workshops visited and from discussions with persons familiar with other workshops, BuCen generally provided competent trainers for the POPSTAN and mapping workshops. For the special-topic workshop on census evaluation, high marks are in order for some staff observed, but BuCen could improve the staffing of such workshops, particularly by drawing more extensively on professionals within the Bureau who have experience evaluating and analyzing LDC census data.

The organization of workshops presents a somewhat mixed picture. Although many facets of the 1982 Sierra Leone Country POPSTAN Workshop went smoothly, and the trainers demonstrated excellent abilities, some questions have been raised, e.g., the degree to which the participants constituted the core persons likely to plan and implement the next Sierra Leone census, and the lack of utilization of locally-available Sierra Leone materials in the curriculum. A key point here is the need for advanced planning visits, especially for Africa workshops.

For the 1982 Philippines workshop, several organizational problems are described in this report. Given the years of BuCen and AID experience running workshops, the existence of some of these organizational problems is surprising. However, despite organizational difficulties, the Philippines workshop attracted relevant trainees and it provided good training, in large part because two Bureau specialists on census coverage and content errors shared their knowledge in carefully prepared and illustrated ways, and because another census evaluation expert from ESCAP was also used as a trainer.

There is a continuing need in LDCs for workshops on various aspects of censuses and related demographic data collection methods. The levels of expertise in Asia and Latin America are better than those in Africa, but staffs in statistical offices, other population organizations, and universities in all developing nation regions can benefit from workshops organized by BuCen. The implementation of these workshops should continue to be closely coordinated with other groups that carry out long-term and short-duration training programs, including groups within the Bureau, universities and institutions such as the East-West Population Institute, and international agencies such as the United Nations Statistical Office.

### Recommendations

The following recommendations are numbered in accordance with the chapter to which they pertain:

- 2.1 International training materials developed by BuCen should be carefully reviewed for consistency of concepts, definitions and formulae. They should be further edited by technical experts with experience in developing countries.

Coordination with international organizations is essential in this effort.

- 2.2 AID should provide RSSA support for the development of new training materials. Although BuCen should not rewrite all POPSTAN and mapping materials for the 1990 round of censuses, selected components should be updated in the form of separate monographs. Specifically, a new monograph is needed on the latest data entry techniques and associated computer technology.
- 2.3 It is necessary to revise and publish updated training materials on editing and data processing and mapping equipment often enough to keep up with the state of the art.
- 2.4 AID should continue to support translations so that all major BuCen international training materials can be translated into Spanish and French.
- 2.5 BuCen should develop standardized training plans, based upon BuCen materials, for different topics or combinations of topics which could be supplemented or adapted to accommodate the use of local data and/or problems as examples.
- 2.6 BuCen should develop supplementary training materials such as slides, transparencies and other materials for the standard plans. In addition to BuCen training use, the Bureau should make the supplementary materials available to other trainers and to participants from developing countries who could incorporate them into their own training programs.
- 2.7 AID should support the development by BuCen of census-evaluation and analysis training materials, including a census-evaluation manual that draws on materials currently being prepared by Bureau staff, supplemented with developing nation case-study examples. These materials should also include illustrative examples for workshop use, and visual aids.
- 2.8 More effort should be devoted to providing training materials to countries with upcoming censuses. The Bureau's concentration on developing nation distribution of training materials should continue.
- 3.1 AID should continue to support three types of training workshops run by BuCen: (a) general census planning and implementation workshops, either country specific or for groups of countries, giving attention in some cases to other data collection methods, especially surveys; (b) mapping workshops; (c) special-topic workshops, especially

census-evaluation and census-data utilization. In carrying out this program, BuCen should continue to coordinate with other groups that carry out and support training activities, especially the UN and groups supported by AID.

- 3.2 BuCen and AID should confer and coordinate closely on the selection of trainers, so that workshop participants receive the benefit of the most qualified trainers, drawing fully on expertise throughout the Bureau and on qualified outside consultants when necessary. In particular, there should be greater use of Bureau staff with international experience, e.g., staff in the International Demographic Data Center for census evaluation workshops.
- 3.3 When a workshop is planned for a country for which only limited demographic and population-census information is available, BuCen should send an advance person three to four months before the workshop to do the following: (a) gather relevant demographic materials and planning statements for the forthcoming census; (b) meet with the relevant senior host country personnel to maximize the spirit of cooperation for workshop planning, and to ascertain that the workshop is scheduled for the appropriate time; (c) learn about data or political problems that could impede the workshop (and the forthcoming census); (d) help arrange physical facilities and supplies; and, most important, (e) help select appropriate workshop participants. These steps are particularly important when planning African workshops. AID should recognize the crucial nature of these advance planning visits, and provide the necessary support for them.
- 3.4 The planning for country and regional workshops should differ in the following ways:
  - a. Country POPSTAN workshops should be oriented toward less educated and less knowledgeable participants. At the same time, more technical presentations are required for the middle level technicians at these workshops, because the latter persons may be more directly involved in census planning and implementation.
  - b. In workshops that include both middle and upper level bureaucrats split sessions should be considered. Another approach worth trying is to conduct policy-type sessions for one or two days at the beginning and end of a workshop, and encourage senior officials to attend these sessions.
  - c. Since middle level technicians probably will constitute the largest group attending country POPSTAN workshops, the data collection segments of the POPSTAN materials should be emphasized and given the largest proportion

of workshop time. Also, more time should be spent on realistic field exercises.

- d. The particular circumstances of the African context should be considered when arranging workshops in African countries. These circumstances include: possibly more difficult logistic arrangements; participants having on average less training and less census experience than participants from other parts of the world; greater difficulty obtaining data for local examples. Thus, more advance planning and an advance trip may be required when organizing African workshops.
- 3.5 POPSTAN workshop participants should be selected from countries which will hold their censuses within the next two or three years. For mapping workshops, lead times of at least two years are necessary if the training is to be used efficiently. Likewise, participants attending special-topic workshops should be selected with attention to use of the training received, e.g., a census evaluation workshop is good for participants in countries that will shortly (better) or have recently taken a census.
  - 3.6 Regional workshops for Africa should be limited to participants from clusters of countries, and these workshops should have content focus on specified topics, such as new data compilation techniques.
  - 3.7 When workshops include large numbers of participants who may not be directly involved in the censuses, instructors should discuss (a) how procedures can be modified for sample survey data collection, and (b) appropriate methods for collecting and processing a wider variety of social, economic, and demographic data (e.g., health, labor force, and income/asset information).
  - 3.8 BuCen should conduct periodic workshops and refresher courses for BuCen trainers.
  - 3.9 BuCen may have more long range impact on census quality through training of the trainers from developing countries. If such a program is developed, BuCen could provide consultation for country workshops designed and sponsored by the countries. This is a new type of activity that AID and BuCen should mutually explore.
  - 3.10 BuCen should continue to provide support in the form of staff and materials for regional workshops organized by other agencies to provide training for sample surveys, mapping, census design, and data analysis.

- 3.11 Finally, we urge that senior administrators at BuCen, including the director of ISPC and the assistant director for international programs, continue to coordinate with AID and to monitor the planning, organization, and implementation of workshops, so that agreed-upon RSSA objectives are achieved efficiently and in a timely manner. If it is not possible, for budget reasons, to maintain a separate unit to operate a RSSA-supported training materials and workshops program, BuCen and AID might consider merging these RSSA activities with another appropriate BuCen unit.
- 4.1 AID and BuCen should adopt a rolling three-year planning cycle, revised annually to add a new third year and to take into account changed circumstances in the LDCs.
- 4.2 AID and BuCen should evaluate the training program, including the workshops, materials development, and materials dissemination. This evaluation process could be carried out annually by staff from both agencies.
- 4.3 AID and BuCen should give additional systematic attention to workshop follow-up activities, such as the handling of requests for information or assistance. This attention is needed particularly in countries that have small USAID mission or embassy staffs.
- 4.4 AID and BuCen should take the lead in arranging annual small-scale coordination meetings that would bring together representatives of groups engaged in census training activities or materials development.
- 4.5 BuCen is encouraged to expand its program of technical assistance for LDC censuses, in addition to the training activities supported under RSSA 4-75.

## I. BACKGROUND

This chapter describes the evaluation team's tasks, the context of Bureau of the Census (BuCen) activities carried out with AID support, the contractual agreements, budget, and deliverables specified in the Resource Services Support Agreement that provides funds for the POPSTAN projects (RSSA 4-75), and the relationship between this RSSA and other BuCen activities. Chapters II and III cover the principal work evaluated, the POPSTAN materials for training and planning, and BuCen workshops 1978-1982. Chapter IV discusses a few related issues.

### A. Evaluation Team's Tasks

On behalf of AID, the American Public Health Association requested the evaluation team to concentrate on four questions:

- (1) How effective is the POPSTAN project in assisting LDC's in implementing their censuses and processing data in timely fashion?
- (2) Are workshops an appropriate means to achieve the project activities?
- (3) Are all materials included in seven parts of POPSTAN and two parts of Census Mapping manuals necessary and sufficient for use by LDC personnel in carrying out complete censuses?
- (4) What are the recommendations for continuing support of census activities?

AID requested that the team give particular attention to recommendations concerning future support of the POPSTAN-type activities carried out under RSSA 4-75. Figure 1 presents the detailed items to be reviewed under the above four questions. To conduct the evaluation, team members attended workshops in Sierra Leone (August, 1982) and the Philippines (September, 1982), interviewed former participants and officials in both of these countries and in Indonesia, officials in the UN Statistical Office and at the East-West Population Institute, and met with BuCen and AID officials and staff responsible for the project. (Trip reports listing persons interviewed and other team activities are found in Appendix A.) The team was not asked to evaluate all activities covered under RSSA 4-75. In particular, CONCOR development and workshops have been separately evaluated on several occasions and will be evaluated again shortly; the evaluation team was told to be concerned only with the functional relationship of CONCOR to the processing of census data.

## B. Scope of Work Under RSSA 4-75

The purpose of RSSA 4-75 is to provide technical assistance for the 1980 round of censuses worldwide in order to facilitate the collection, processing, analysis, and dissemination of reliable and timely census data. This agreement was negotiated

"between AID/W and the U.S. Bureau of the Census for the purpose of assisting LDC's in the worldwide effort, to collect accurate and timely data from the 1980 Round of Censuses through (1) the publication of instructional materials and manuals; (2) the compilation of a generalized computer edit package, CONCOR; (3) seminars and workshops based on those materials; (4) consultative visits in support of the program; and (5) the administration of a special account to support participants' travel and per diem in attending the workshops. Due to the difficulties encountered in developing a COBOL CONCOR software editing package, AID/W in late 1979 decided to take it out of the RSSA agreement. Since FY 1980, A.I.D. funds have not been provided for this purpose. . . . Since 1978, a total of \$3.4 million has been obligated for the project activities described above."

The work under this RSSA supplements, draws on, and contributes to several other training activities, some of which are described in Appendix B.

## C. RSSA 4-75, 1978-1982: Contractual Agreements, Budgets and Deliverables

To carry out the purposes listed above and described in Figure 2, AID and BuCen have negotiated annual amendments to RSSA 4-75. According to information provided to the evaluation team, much of the negotiation and subsequent project planning is carried out verbally by staff at AID and ISPC. For example, the number, locations and subject matter of POPSTAN workshops are negotiated directly by staff, with minimum information committed to the formal RSSA 4-75 amendments (which are usually signed well into the fiscal year in which the work is to be carried out). Also, the initiative for the annual negotiations tends to rest with AID, e.g., AID contacts ISPC to request that workshops be carried out in a given year on specified topics, with details and a budget then negotiated. For these reasons, the written contractual agreements, budgets and agreed-upon deliverables are not nearly so detailed as in many AID contracts.

Nevertheless, much information in the RSSA 4-75 amendments is available, including the numbers and approximate locations of workshops to be held, and the training materials to be prepared. This information has been analyzed by the team and is discussed in detail in Chapters II and III. Table 1 shows the total RSSA 4-75 budget for each year FY 1978-1982, and the direct BuCen expenditures, i.e.,

excluding participant funds, and taking account of carryover funds from a prior year or spent in a subsequent year. Note that the budget was \$787,700 in FY 1980, but then declined to \$371,000 in FY 1982. Direct BuCen expenditures peaked in FY 1979 and declined to \$297,000 in FY 1982. These declines have caused considerable consternation at the Bureau, especially among POPSTAN staff and others in ISPC who complain that they no longer have funding adequate to conduct the workshops specified in the RSSA amendments, and that the budgets no longer provide sufficient staff for the program.

These statements concerning the effects of reduced funding on the ability of the Bureau to meet its workshop obligations merit attention. It is necessary to review the amounts provided under the RSSAs, BuCen contributions, and the amounts of staff time provided through the RSSAs. Table 1 also shows the annual number of workshops BuCen was contracted to run under RSSA 4-75 and the number actually conducted each year. In addition, using data supplied by the Bureau on the amounts spent on workshops, Table 1 shows the average cost charged to the RSSAs per workshop. This amount was very low in FY 1978 when the four workshops were held in the United States. Since then, the reported cost per workshop, excluding participant funds, ranged from \$27,200 in FY 1979 to \$38,300 in FY 1981 and \$34,000 in FY 1982. Taking inflation into account, these numbers suggest that during the period 1979 to 1982, BuCen expenditures from the RSSAs, per workshop, were roughly even, except for 1981 which was a bit higher.

BuCen also provided assistance at workshops run by several other groups, including the UN, EWPI, etc. Although no such assistance occurred in 1981 and 1982, the following summary shows that BuCen assistance in earlier years was substantial. (The detailed financial data are in Appendix I.) Note that for this assistance \$141,000 was charged to the RSSAs, and \$24,000 was contributed by BuCen.

| <u>Year</u> | <u>Number of workshops at which BuCen provided assistance</u> | <u>Costs charged to AID RSSA</u> | <u>Costs contributed by BuCen for staff</u> | <u>Total costs</u> |
|-------------|---|----------------------------------|---|--------------------|
| FY 1978     | 4   | \$49                             | --  | 49                 |
| FY 1979     | 10  | 66                               | 15  | 81                 |
| FY 1980     | 4   | 26                               | 9   | 35                 |
| FY 1981     | --  | --                               | --  | --                 |
| FY 1982     | <u>--</u>   | <u>--</u>                        | <u>--</u>                                   | <u>--</u>          |
| Total       | 18  | \$141                            | 24  | 165                |

A review of staff time, especially the GS-11 and above professional time listed in the RSSA, provides additional insight. Table 2 classifies by task the number of person months of professional staff time charged to the RSSA. Note that the time spent on material development was very high in FY 1978 when the major writing of POPSTAN was underway. From 1979 to 1982, the number of person months paid by the RSSA for BuCen workshops generally follows the number conducted, although the average per workshop is higher in 1980 to 1982 than in 1979. Thus, the undercurrent among ISPC staff that the workshops are no longer adequately supported by AID is open to question. Also, the number of person months charged to the RSSA for "general administration and other" has increased over the years, especially a proportion of total person months provided by the RSSA, e.g., from 17 percent in 1978 to 21 percent in 1981 and 25 percent in 1982.

These trends need to be reviewed also in the context of BuCen contributions of professional staff time, shown in Table 3. Altogether, during the five FYs discussed here, BuCen contributed 83 person months of professional staff time, about one-fifth of the 397 person months of professional time applied to POPSTAN activities during this period (313.5 plus 83.5 months). In addition, BuCen contributed 72.5 person months of paraprofessional time, not shown in Table 3. These contributions indicate a further advantage of RSSA arrangements, since it is unlikely that private companies would provide free personpower to this extent.

#### D. Relationship of RSSA 4-75 to Other Census Bureau Activities

The development of POPSTAN materials and the implementation of workshops under RSSA 4-75 are carried out in the Training and Information Services Division of the Bureau's International Statistical Programs Center (ISPC). Within this Division, POPSTAN activities are handled by the 1980 World Census Project unit in the Census and Survey Methods Branch. As indicated in Figure 3, the POPSTAN activities are just one part of a substantial Bureau program of international demographic activities. Furthermore, Figure 3 shows only the ISPC structure; other Bureau international activities are carried out in the International Demographic Data Center and the Foreign Demographic Analysis Division. (These two units that may be merged into one shortly). Also, technical experts from other parts of the Bureau participate in international activities. All Bureau international work is coordinated by an Assistant Director for International Programs, who reports directly to the deputy director.

Naturally, these international activities constitute only a small part of the Bureau's overall responsibilities, which include the decennial censuses and ongoing survey programs in the United States. The major programmatic work of the Bureau is carried out in two broad groups, Economic Fields and Demographic Fields, each headed by an

associate director who reports to the deputy director. The coordination of international activities with other Bureau functions is a responsibility of the four senior Bureau staff noted above: the assistant director, the two associate directors, and the deputy director. Senior staff interviewed by the team all confirmed the Bureau's current interest in and commitment to further development of international activities in the years ahead.

## II. POPSTAN MATERIALS FOR TRAINING AND PLANNING

### A. Overview

The RSSA 4-75 amendments list the POPSTAN materials to be produced, although they do not discuss how these products fit into the long-range plans of AID and BuCen for improvement of the quality of the 1980 round censuses. Unfortunately, Beulah Washabaugh, the creator and driving force responsible for the POPSTAN case study and the creator of the training program, died in 1980, and the team could not have the benefit of her knowledge of the program and its evolution. However, other BuCen staff provided insights and information to the team. These insights are particularly important because much of the administration of the POPSTAN project has been carried out on the telephone, between AID and BuCen staff, rather than through written messages and correspondence.

Following this overview, Chapter II discusses the POPSTAN materials prepared by BuCen, including a review of the timeliness of product delivery. Dissemination is covered next, followed by a description of the opinions of users and officials in census organizations and international agencies. The fifth section discusses effectiveness, and the chapter concludes with a set of recommendations.

The team carried out the evaluation of the POPSTAN materials in the following ways. First, the team reviewed evaluations written by former workshop participants. (These tend to be laudatory in general, they express desires for longer workshops and more materials, and they report on what participants liked best.) Second, the team conducted interviews with persons in several categories: (a) participants in the observed workshops; (b) participants in former mapping and POPSTAN workshops; (c) developing country officials in statistics agencies; (d) workshop faculty; (e) staff at the East-West Population Institute (EWPI) and the United Nations Statistical Office (UNSO); (f) staff at BuCen and AID. In most of these interviews, team members asked for opinions about the value of the POPSTAN materials as references for planning censuses and surveys and whether or not the materials had actually been used in training workshops.

Third, the team reviewed the seven parts of the POPSTAN materials in a general manner, and, in order to provide a specific illustration of problems that should be avoided in the development of future materials, a critical examination of Part E, Intercensal Household Survey Program for POPSTAN, is provided in Appendix C. Because no team member is an expert in mapping and cartographic techniques, the team's review of the Mapping Manual and the Mapping Workbook is cursory. However, since opinion among users and other individuals is nearly unanimous that the mapping materials are very useful, the team decided not to seek outside assistance for review of the two mapping volumes.

## B. Products Produced

The original production schedule for POPSTAN was to develop materials for advanced training for the 1980 round of censuses, and work began in FY 1975, under RSSAs prior to those reviewed by the evaluation team. Although the first plan had been to simply update the New Florentia materials, AID and the UN Statistical Office reviewed that decision with BuCen, and concluded that a simple update would not be sufficient for the needs of LDCs. Three reasons for that decision were communicated to the team: 1) the UN considered the simultaneous sampling plan illustrated in New Florentia to be inappropriate for LDCs; 2) the New Florentia questionnaire did not meet an AID requirement that the 100 percent questionnaire be all precoded; 3) users of New Florentia criticized the document for being too compartmentalized; each part covered a separate topic-- data processing, data collection, quality control, etc.--thus, the interrelationships of operations and procedures were not clear, and, therefore, the new materials, called POPSTAN, should be written as a set of interrelated subjects. A decision to produce a new case study--POPSTAN--was reached in late FY 1976.

The FY 1977 RSSA 4-75 amendment specified that BuCen was to complete a cartography manual in final draft by July 1977, with publication by September 1977, and a POPSTAN manual in draft by December 1977, with publication of 1,000 copies by March, 1978. Subsequent RSSA amendments specified that the manuals/materials shown in Table 4 were to be developed and distributed according to the indicated (later) timetable. Table 4 also shows the actual delivery dates of the products completed to date, which include all of the English-language POPSTAN and mapping manuals, plus several volumes in Spanish and French. It is clear that the production of these training materials took much longer than anticipated by BuCen and AID when the FY 1977 RSSA amendment was prepared. It is also clear from the texts of the subsequent RSSA amendments that the late delivery of these training materials was a source of concern to AID. The original (1975) intent was to have a set of revised New Florentia materials available in time for most censuses in the 1980 round. However, many of these censuses had been conducted by the time the totally new (POPSTAN) materials were published, and, more importantly, the latter were not available during the planning phases prior to the censuses.

Three points can be noted. First, the decision to develop Popstan instead of a revised New Florentia was sound; the reasons given above are compelling. Second, once this decision was made, all involved parties must have realized, at least unofficially, that the original goal was unattainable, i.e. develop materials for use during the preparatory phase of the 1980 round of censuses. Recognition of this fact at sufficiently high levels of both AID and BuCen might have alleviated some of the concern and tension implicit in later RSSAs. BuCen reports that it took two years to develop an outline that minimized repetition and compartmentalization, and to develop a questionnaire and a data collection plan that were

acceptable to AID, the UN, and the users. Third, more specifically, the schedule specified in the FY 1977 RSSA for completing a draft POPSTAN manual during 1977 (with publication of the latter by March 1978) was unrealistic. (The FY 1977 RSSA was signed March 28, 1977, halfway through the fiscal year.) Despite these timing problems flowing from the basic decision to develop POPSTAN, draft sections of POPSTAN were used in the FY 1978 and FY 1979 workshops.

Thus, given the complexities of the task, plus the time-consuming nature of the internal and external reviews obtained by BuCen and the resulting revisions, the record shown in Table 2 is credible (some might say commendable), except for Volume F and some of the translated volumes, although translations of technical material such as POPSTAN always turn out to be major time-consuming tasks.

The development of any future training materials at BuCen, some of which are recommended by the team, should draw heavily on the lessons of the POPSTAN training materials experiences. Realistic delivery schedules should be agreed upon: it takes a long time to write, submit for review, revise, edit, and publish major training cum reference documents, to say nothing about translation into other international working languages. A period of 30 to 36 months is not unrealistic for the preparation and publication of materials such as volumes A and B in the POPSTAN series. On the other hand, for the preparation of such materials, authors should be scholars who have demonstrated records of timely production of agreed-upon products, who have an understanding of the special complexities associated with data collection, tabulation and analysis in developing nations, who have the requisite technical competence in the subject matter covered in the training materials, and who have writing skills sufficient to convey technical material to readers who include developing nation technicians at varying levels of training and experience. This list of qualifications is extensive; yet, the team believes that this combination of the above skills exists among staff at BuCen, although they may not exist within the particular office assigned the task of preparing such materials. Therefore, senior BuCen staff are strongly encouraged to draw upon and assign appropriate staff to the development of any future training materials. For its part, AID must recognize the time frames and resources required for such activities.

In addition to the longer training and reference documents prepared by BuCen, staff assigned to workshops develop sets of materials for use in their lectures and laboratory sessions at the workshops. Chapter III discusses the workshops, but given the close coordination required between the development of training materials and the implementation of workshops, we include a few recommendations on training plans and supplementary training materials at the end of this chapter.

### C. Dissemination

Close to 2,000 copies of the POPSTAN manuals and over 2,000 mapping manuals have been distributed by BuCen to workshop participants and to other recipients in many countries around the world. The distribution information supplied by BuCen is summarized in Table 5 and shown in detail in Appendix D. Note that although recipients in the United States represent the greatest number distributed in any country, the United States proportion is about one-fifth of POPSTAN and one-fourth of the mapping manuals. A modest number of manuals have gone to recipients in developed nations such as Australia, England, and Japan, but over two-thirds of the distribution has been to recipients in some 109 developing nations. This record is satisfactory, and the concentration on developing nation distribution should continue in the future. Also, specific attention might be given to distribution in countries with upcoming censuses. For example, it is a pity that only 5 POPSTAN and no mapping manuals were sent to China, which conducted a census in July 1982. We understand that BuCen offered more copies, which were refused, and that, technically, the Foreign Assistance Act does not encourage the distribution of materials to China (PRC). Nevertheless, the team believes that further attempts to provide copies to China are warranted. At the very least, in addition to copies for the State Statistical Bureau, each of the 17 primary demographic training centers in China should have a complete set of POPSTAN and mapping manuals. Furthermore, possibly such distribution could be arranged centrally via the demographic advisor in the UNFPA office in Beijing.

(Note: The details provided in Appendix D do not make clear what has been distributed in the POPSTAN series. For example, do the 4 English language manuals sent to Afghanistan represent 4 complete sets (A through G), 2 copies of A and 2 copies of B, 4 pairs of A and B, or some other combination? This uncertainty should be kept in mind when using the information in Table 5 and Appendix D.)

### D. User Opinions

Opinion was nearly unanimous among persons interviewed that the POPSTAN and mapping materials are quite useful, principally as reference documents for planning census and census-related survey activities, and as training documents. That is, middle level technicians and senior officials in national statistical offices said they find much useful information in these volumes, but they do not depend solely on them when planning a census, nor do they follow every piece of advice or procedure recommended. (They should not do so.) BuCen staff trip reports for 1978 and 1979 workshops referred to the lack of Spanish and French translations of some parts of POPSTAN

Workshop participants in general also responded that POPSTAN materials provide good references for use in preparing for a census. When asked whether the situations described in POPSTAN applied in their own country, the usual response indicated that "of course we have to take account of our own situation" and modify POPSTAN procedures accordingly. Participants tended to remember Parts A, B, and C rather than the other four parts perhaps because they are the more general. In the limited number of interviews, no participants commented spontaneously on the POPSTAN Workbook (part G), and when prompted, responses were vague.

Participants from the mapping workshops appeared to remember the mapping manuals somewhat better than other workshop participants who remembered POPSTAN. Participants who were familiar with both were more enthusiastic in praise of the mapping manual than of the POPSTAN materials. One respondent spoke highly of "other" mapping materials provided at an EWPI mapping workshop. (He had attended mapping workshops at the EWPI and in Jakarta, the latter run by BuCen.)

Some participants who were interviewed at their place of work produced copies of the materials when asked whether they were available; others could remember seeing them and some could not.

Similarly, workshop trainers rank the materials from useful to very valuable as references. However, as training materials, they believe that it is necessary to supplement the materials with examples from developing countries. These impressions are supported by interviews with BuCen staff and by trip reports of BuCen staff and consultants. Trainers and officials had high praise for the mapping manual both for training and for reference. While it is generally recognized that the materials have a recognizable consistent U.S. flavor and that there are some errors both in content and in recommendations, most knowledgeable technicians in other countries recognize and discount this U.S. bias when using the materials. Some BuCen staff fear that on occasion the manuals might be used uncritically, without modification.

Strong encouragement to continue to distribute and to use the POPSTAN and mapping materials was offered by officials in the United Nations. Indeed, the strongest positive comments about the whole POPSTAN effort came in the form of UN staff comments on the mapping manual. Although not perfect, it fills a void; it is genuinely serviceable in meeting the needs of developing nations; definitely, it should continue to be made available. These UN staff also believe that a complete update of the POPSTAN volumes (say, in the form of a set of volumes for that new nation Poplandia, as a model for the 1990 round of censuses) would be unwarranted and unnecessary, principally because the UN guidelines for the 1990 round of censuses are similar to the 1980 round guidelines (which are represented in POPSTAN), because the

materials are basically sound despite the lack of adequate LDC orientation, and because it is such a large undertaking to produce a new set of volumes.

However, UN staff and other observers, including team members, believe that selected components of the POPSTAN materials should be updated in the form of separate monographs, principally one on the newest data entry techniques and associated computer technology.

Also, observers and team members believe that BuCen could use more LDC examples in the training materials it develops. The team appreciates but does not agree with the Bureau's view which was summarized for the team as follows:

It is difficult to find LDC examples which would not leave individual countries open to criticism and lead to embarrassment of participants. For this very reason statistical offices are reluctant to release evaluation studies that they have produced. For example, the Thai PES is rumored to have been poorly executed. In another case, although a BuCen employee aided the Paraguayans in their PES and considered it well done, the Paraguayan government, to the best of our knowledge, never officially released the study. To speak about the Paraguayan experience would seriously compromise the trust that the U.S. and Paraguayan statistical offices have in one another. (Note provided by BuCen 11/29/82.)

As an example of a major training document oriented to LDC audiences that makes extensive use of LDC examples, the team notes Report No. 10 by the NAS Committee on Population and Demography, Indirect Techniques for Demographic Estimation, being published by the United Nations in 1983. Also, that committee's Report No. 4 on age misreporting and age-selective underenumeration, key problems in census evaluation work, contains examples from several LDC censuses, e.g., Liberia, the Gambia, Malaysia, Korea, and Paraguay. Curiously, in the light of the above BuCen note, some of these examples were obtained from articles authored or co-authored by a BuCen census evaluation expert. For example, the Paraguay example was taken from an article by this BuCen staff member published in a widely available 1978 book. The United Nations also makes extensive use of LDC examples; note the series of three publications on the methodology of evaluating the impact of family planning programs (Population Studies, Nos. 61, 66 and 76).

#### E. Effectiveness

The POPSTAN and the Mapping Materials have been used in many BuCen, EWPI and UN training programs conducted in English, a

number of others conducted in Spanish, and a few conducted in French. Overall, the evaluation team concludes that the POPSTAN Materials have been helpful, especially when used as the basis for discussions of specific problems, e.g., in discussing and testing the Sri Lankan Census Pretest Questionnaire. The team believes that the mapping manual has been particularly useful. On the other hand, the weakest part of the POPSTAN materials is the workbook (Part G). It was not used in the Sierra Leone workshop discussed in Chapter III, because the instructors felt the workbook exercises are too elementary.

The materials can be most effectively used by the good trainers who know the capabilities and level of participants and who organize other examples and training materials to accommodate to the level of the participants. It is especially important that trainers supplement the POPSTAN materials with examples from the countries of the workshop participants.

In spite of the value of these training materials, the team answer to the direct question #3 "Are these materials necessary and sufficient . . .?"; would have to be no in the case of POPSTAN. If these BuCen materials did not exist, trainers would either find or prepare alternative materials for training purposes so they cannot be "necessary." Also, they are not "sufficient" without supplementary examples and adaptation to specific developing country needs. However, for the mapping manuals, the team direct answer is close to "yes," as suggested by comments made above. (This conclusion is based primarily on commentaries by other observers, since the team does not include a mapping specialist.)

A more appropriate question would be "Have the training materials improved the quality of census related training programs?" and the answer to that would certainly be yes. The team is convinced that BuCen and other census training programs, especially those concerned with total design, planning, organization, and quality control, have been and will continue to be more effectively and efficiently organized and conducted because of the availability of POPSTAN materials.

Although it is impossible for the team, or others, to determine what impact the training materials have had or will have on the 1980 round of censuses, it probably is safe to conclude that the contribution has been positive for many countries and large for some countries. Furthermore, the impact on the quality of the 1990 round of censuses will be cumulative, especially if intercensal and precensal training efforts are continued and geared toward long range development of census organization capabilities in developing countries.

Perhaps the single biggest gap in the manual series is the lack of any extensive discussion of age and other kinds of

reporting errors that can be idiosyncratic to particular cultures. One might have expected that Part F (Variations for Local Conditions) would cover such issues, for example, differences between various Asian and African cultures in data collection needs and reporting errors. The variations could have included a discussion of "purdah" within some Muslim societies, differential age misreporting errors, how births and infant deaths are considered in different cultures, variations in the meaning and interpretation of the state of marriage, and so on. In general, Part F is misnamed; a volume dealing with cultural variations would be useful.

Finally, it should be noted that a principal use of the POPSTAN manuals is as a set of shelf reference materials for developing nation technicians and administrators. Hence, the value of the materials for users would be enhanced if each section included a list of references or bibliography, as well as information on the BuCen office to contact for additional information on specific topics. (As discussed in Chapter IV, if possible it would be best to centralize all requests through one office.)

#### F. Recommendations

- 2-1 International training materials developed by BuCen should be carefully reviewed for consistency of concepts, definitions and formulae. In addition, they should be edited by technical experts with experience in developing countries. Coordination with international organizations is essential in this effort.
- 2-2 AID should provide RSSA support for the development of new training materials. Although BuCen should not rewrite all POPSTAN and mapping materials for the 1990 round of censuses, selected components should be updated in the form of separate monographs. Specifically, a new monograph is needed on the latest data entry techniques and associated computer technology.
- 2-3 It is necessary to revise and publish updated training materials on editing and data processing and mapping equipment often enough to keep up with the state of the art.
- 2-4 AID should continue to support translations, so that all major BuCen international training materials can be translated into Spanish and French.
- 2-5 BuCen should develop standardized training plans, based upon BuCen materials, for different topics or

combinations of topics which could be supplemented or adapted to accommodate the use of local data and/or problems as examples.

- 2-6 BuCen should develop supplementary training materials such as slides, transparencies and other materials for the standard plans. In addition to BuCen training use, the Bureau should make the supplementary materials available to other trainers and to participants from developing countries who could incorporate them into their own training programs.
- 2-7 AID should support the development by BuCen of census evaluation training materials, including a census evaluation manual that draws on materials currently being prepared by Bureau staff, supplemented insofar as possible with developing nation case study examples. These materials should also include illustrative examples for workshop use, and visual aids.
- 2-8 More effort should be devoted to providing training materials to countries with upcoming censuses. The Bureau's concentration on developing nation distribution of training materials should continue.

### III. EVALUATION OF BUCEN WORKSHOPS, 1978-1982

#### A. Overview

During 1979-1982, the U.S. Bureau of the Census (BuCen) planned and implemented 16 workshops in developing nations intended to improve the developing nation capability for carrying out the 1980 Census round activities. (See Table 6. Previously a few workshops were held in Washington.) In some instances, this training was highly specialized, such as instruction on census mapping or quality control. More often, the training utilized the POPSTAN format to explain all aspects of a census operation to middle and upper level bureaucrats who anticipated being involved in a census. This chapter evaluates these workshops. Sections B and C review workshop results and staff; Section D reports on the two workshops evaluated by the team; and Section E provides a synthesis of workshop participant opinions. The last two sections, F and G, discuss workshop planning and implementation, and present the team recommendations.

Most workshops have been regional; that is, participants from a number of countries within a defined part of the world were trained at one location so as to maximize the training possibilities with a fixed amount of human and financial resources. More recently, AID and BuCen have initiated country specific workshops. This evaluation considers regional and country workshops separately, taking into account their somewhat different objectives, and recognizing that the two types of workshops can differ in several ways: the advance planning required; the instruction and materials covered; and the characteristics of the participants.

Regional workshops frequently include generally well educated participants from the mid and higher bureaucratic and technical levels. Thus, regional workshops are usually aimed at a better educated but more diverse audience; therefore, a variety of demographic, social, and political interests must be considered. To some extent, this diversity precludes any detailed consideration of the specific demographic needs and/or problems of any particular country. In contrast, participants in a country workshop are more likely to be lower level technicians and bureaucrats from several ministries of that country. Detailed instruction can focus on specific data collection, tabulation and analysis issues related to that country. Most of the country workshop discussion below relates to the evaluation of a country workshop held in Freetown, Sierra Leone, July-August, 1982.

It is also important to plan differently for workshops carried out in different areas of the world. For example, the educational and technical attributes of participants in Asia and Africa workshops can differ considerably (and also differ within these two areas). Thus, the census assistance required by African

and Asian developing societies varies. This regional variation in technical capability is also manifested in the abilities of countries to effectively estimate their census logistic requirements, including capabilities for meeting census deadlines. AID and BuCen should consider these facts in order to provide useful technical assistance at the most appropriate times.

## B. Workshop Results

It is estimated that during 1978-82 BuCen directly provided training for the 1980 round of censuses to personnel from 39 countries: 21 in Africa, 6 in Asia, 3 in the Near East, and 9 in Latin America (see Appendix E, Table E-2, which also includes information on workshops run by the UN, ECCM, SIAP and the East-West Center).<sup>3</sup> Participants from 36 and 27 countries attended POPSTAN and mapping workshops respectively. Participants from eight countries attended other specialized workshops. In most instances, all of these workshops were regional.

Table 7 classifies the number of participants from each region by the type of BuCen workshop attended. It is estimated that 289 developing nation participants attended BuCen workshops 1978-1982, including 180 who attended a POPSTAN workshop, 91 a mapping workshop, and 18 a specialized workshop.<sup>4</sup> (Details are shown in Appendix E, Table E-1.)

Table 7 also compares the date of each workshop with the date of the proposed censuses in the participants' countries. Ideally, participants should attend workshops scheduled a sufficient time before the census date so that they can maximize use of the knowledge gained. In many cases, such timing occurred. (A caveat is that in nine instances, the workshop attended preceded the 1980 round Census by at least five years, in all probability reducing the likelihood that the participants' training would be applied in the forthcoming census because of job changes, promotions, and skill attrition among government officials in developing countries.) In most instances (80 percent), an individual participated in a workshop either prior to or in the same year as his or her country's census. However, among 148 African participants (where a country's census date was known), 46 or about a third attended a workshop too late to be of any major value for the current census. A majority of these 46 participants attended mapping workshop; thus, one hopes that skills acquired could be readily utilized for other than direct census activities. The Near East regional participants also evidenced significant temporal mismatching: nine out of ten Near East workshop participants attended workshops after their country's census. The temporal matching of workshop and census dates was better for Asian and Latin American participants.

Overall, 163 of the 289 participants are from African nations. Because the technical assistance needs are greatest in Africa, this focus represents a wise investment of resources.

### C. Workshop Staff

An examination of the characteristics of the individuals performing the workshop training suggests that BuCen frequently draws on outside instructors, although this occurs primarily for training programs in non-English speaking areas or where specialized technical skills are required, e.g., mapping workshops. In 16 workshops completed between April 1979 and September 1982, BuCen utilized 58 instructors, among which 32 were BuCen staff and 26 were outside consultants (see Table 8). In the English speaking workshops, 24 of the 32 instructors were BuCen staff. In the Spanish and French language workshops, 8 of 26 instructors were BuCen staff. Thus, BuCen apparently has greater difficulty finding internal staff for the foreign language workshops.

Within the Bureau, the staff of the ISPC are the main source for workshop instructors. Among the 32 BuCen personnel, 22 were from the ISPC, four from the geography division, 4 from the Statistical Research Division and one each from the Statistical Methods Division and the Housing Division. Additional discussion of workshop staff is found in the next section on the case studies.

### D. Two Workshop Case Studies

This section discusses the two 1982 workshops that team members attended: the country POPSTAN workshop in Sierra Leone, and the regional census evaluation workshop in the Philippines. More detailed statements on these workshops are found in Appendices F and G.

#### 1. Sierra Leone Country Workshop

The team member attended several workshop sessions and met with local government and university officials as well as workshop participants. Evaluation criteria include the quality of the training and the extent to which the training meets the specific needs of Sierra Leone in planning and organizing its forthcoming (1984) census.

The workshop included 25 participants (see Appendix F) but only five were from the Central Statistics Office (CSO), the agency responsible for the 1984 census. However, an additional six participants were associated with Fourah Bay College and they were likely to be involved in the 1984 census. Also, several other participants may be seconded to the CSO, at their request, as the census date draws near. Both the director of CSO and the head of the Field Division in the CSO indicated that they would strive to hire for the census non-CSO personnel who attended the workshop. When queried directly, among 23 participants who responded, 11 said that they expected to be directly involved in the census (mostly in field operations), 6 said they did not know,

3 responded that they "hoped they would be," 1 said "maybe" and only 2 said no.

The class included a variety of abilities and interests. Educational backgrounds ranged from Form V (some secondary school) to masters degree level. Only four had any programming knowledge. This diversity (which may turn out to be typical for country workshops) can pose training problems. However, the instructors struck a good balance between the needs and capabilities of the poorer and better students. The instructors also were very sensitive as to whether or not they were "losing their audience" and they did a superior job in gearing technical discussions to a level that could be understood by most of the class. They were versed in teaching students from developing countries; they talked carefully and slowly, using easily understood terminology. They were clearly interested in and concerned about their students--and the students were sensitive to this. Class rapport was good, and attendance was outstanding. There were instances, however, where instruction could have been improved by splitting the class either according to specific interests (e.g., programming, data analysis) or by capability. The presence of two instructors can permit some divided instruction, although this may be difficult to undertake without prior planning. Having two instructors is also advantageous for other reasons, including instructor morale and the possibility for the observing instructor to provide individual assistance where a student is obviously struggling.

The physical facilities provided for the workshop were excellent (see Figure 4). The workshop used a classroom in the Institute for Public Administration and Management at the University of Sierra Leone. The room was large, well lit, and had a big blackboard. Desks and ventilation were adequate. Sessions were held from 9:00 a.m. to 2:30 p.m. with two short breaks. While the sessions tended to drag toward the end of each day, there was no good alternative to this scheduling. Breaking the sessions in the middle of the day, with separate morning and afternoon sessions, would leave participants inattentive and drowsy during late afternoon sessions in a tropical country where air conditioning is not available.

As of July 1982, plans for the 1984 Sierra Leone census were clearly tentative and many staff for the 1984 Census (which may be delayed to 1985) have not yet been selected. Indeed, the CSO director indicated that he will soon request further training assistance once top level census staff have been selected. An "advance person" going to Sierra Leone to plan the 1982 workshop and to discuss this timing issue with appropriate Sierra Leone and USAID officials, might have concluded that the workshop could better accomplish its stated objectives if delayed a few months until the census operation was fully operative and staffed. More

preparation time would also make it easier to select the most appropriate individuals to be trained.

An "advance person" might also have been able to expedite the receipt by BuCen of much Sierra Leone material extremely valuable for the country workshop. (See Appendix F for a discussion of the repeated attempts by BuCen to obtain relevant materials and to secure the attendance of appropriate Sierra Leone personnel at the workshop.) To illustrate the availability in Sierra Leone of materials useful as training examples in the workshop, Figure 5 lists items collected by the team member during his stay in Freetown. The point is that a little determined leg work, in the country of a proposal workshop, may produce available documentation that is not forthcoming via long distance correspondence and cable traffic.

The above discussion should not suggest that individuals who attended the workshop did not gain many useful skills. Rather, the implication is that a much better return to the AID investment might have been made if an appropriate individual had been sent to Sierra Leone several months in advance to clarify the timing issues and obtain relevant materials.

To sum up, because many of the participants will be able to use the skills they acquired in the next census, the workshop is rated as successful. Nevertheless, better planning might have increased the number of participants who will be involved in the census, and could have substantially increased the use of local materials. Also, the workshop would have been improved by more extensive treatment of the data collection phase of a census operation (with greater emphasis on local data collection problems), more time spent on sample survey data collection techniques (for those who will not be involved in the census), and by the use of split sessions aimed at different audiences. BuCen should consider these points when planning future country workshops.

## 2. Regional Workshop on Census Evaluation, Manila

The FY 1982 RSSA Amendment specifies that BuCen should conduct one census evaluation workshop. The Manila workshop, August 30-September 18, 1982, was the first (and only) one of this type conducted by BuCen. The team evaluation of this workshop was carried out in several ways. On August 12, the team interviewed the staff and faculty for the workshop at BuCen. Next, two team members observed the first 9 days of the workshop in Manila, and then team members returned to BuCen September 20 to review the file which documented steps in the planning process. The team objectives were to assess the BuCen planning and development process, including the timing and content of communication and coordination, and to assess the implementation of the workshop. It is not possible to attempt to assess the impact of this

workshop on the subsequent analysis of data in the countries which sent participants.

The following subsections cover workshop planning and organization, instruction, and observations.

a. Planning and Organization

A review of the FY 1982 RSSA amendment, and the timing of events and activities, indicate that planning began far enough in advance of the workshop to provide adequate time for curriculum planning, materials development and preparation of visual aids; to send detailed notification to missions; and to recruit qualified participants and incorporate information about them into the final stages of planning. However, interviews with participants and with USAID Officials, plus a review of the chronology of events, reveal a number of difficulties. The chronology, presented in Figure 6, although incomplete, is used as a framework for discussing these difficulties.

The first indication of logistical difficulty is reflected in the January 28, 1982 Goldman memo which indicates a limited mission commitment to the workshop. Whether or not the June 9, 1982 letter indicating mission inability to negotiate for a hotel could have been predicted in January would be speculative at best. Nevertheless, since the decision to use the Hotel Manila was made on July 28, 1982, only one month remained to notify missions and participants. Even so, eleven days elapsed before the cable describing final arrangements was sent; thus, the missions and participants had less than three weeks to complete arrangements. (This is probably satisfactory if advance notice of participant approval has been received, e.g., as for the Sri Lanka participant.)

Getting a detailed workshop schedule and topic agenda in the hands of the mission staff who make recommendations about participants illustrates a serious difficulty in communications. This difficulty was reported in interviews with mission officers and with participants. For example, although a reasonably detailed schedule, listing topics to be covered each day and when laboratory exercises would be held, was given to team members by BuCen August 12 (and it was available several months before that), USAID mission staff in Jakarta, who were handling participant selection and arrangements, saw it for the first time August 30 when they asked the team member if he had any details on the context of the workshop. Also, discussions with participants from India, Indonesia, and Pakistan revealed that they were unaware of workshop content until they were in the final days of departure procedures just prior to coming to Manila. In the case of the Indonesia mission staff, it is difficult to pinpoint the information flow breakdown. BuCen records show that a copy of the reasonably detailed schedule, noted above, was sent to all

participating missions, including Indonesia, on April 26, 1982, about 4 months before the workshop. However, mission staff said they had not seen it. Clearly, BuCen and AID Washington staff should give attention to this problem; although one does not wish to recommend extra paper flow, perhaps BuCen and AID Washington should ask for brief acknowledgement of receipt of workshop agendas and other important items, so that duplicates can be forwarded in cases where such acknowledgement is not forthcoming.

Another important way to give attention to this problem is to watch the "shortening" of messages to missions that contain important workshop information. To return to the Sierra Leone workshop for a moment, BuCen drafted a cable on 18 June 1982 that included the daily workshop schedule. Following usual custom, this cable was sent to AID Washington for transmittal to the USAID mission in Sierra Leone. However, the schedule was dropped from the cable by AID and a sentence added saying that the schedule was being pouched. On 28 June, when BuCen staff saw a copy of the cable, they called the mission to relay the schedule. While AID should have at least telephoned BuCen to indicate that the schedule information was being dropped (unfortunately, since it appears that the mission wanted the schedule to help make final arrangements), BuCen was rather late in transmitting the schedule. Whereas for the Manila workshop, the schedule was prepared and sent (at least according to the record) some four months before the workshop. In the case of Sierra Leone, 18 June was barely one month before the workshop. (The record of Sierra Leone workshop preparation is included in Figure 6.)

The information about participants that missions provide to BuCen apparently is not uniform in content. If the type of information provided by USAID/Colombo for the Sri Lanka participant at the Manila workshop had been available for all participants and used for advance planning, the instructors could have been aware of the generally high educational levels of the participants. As it was, the instructors learned about participant educational levels upon arrival in Manila.

The final selection of the six Philippine participants was not made by Philippine officials until the workshop coordinator reached Manila, about four days before the workshop began. It is unclear whether this last minute selection was due to uncertainty about workshop content or to a lack of communication among the Philippines officials.

Many procedures carried out for the Manila workshop have been developed by BuCen in conjunction with previous workshops. Generally when the site, content and timing of a specific workshop has been settled, a BuCen announcement is cabled to country missions who in turn communicate with country statistical agencies and other groups that may have relevant candidates for training, e.g., university staff members. AID Mission influence in the

nomination and selection of workshop participants is usually informal, although for some countries such as Indonesia, mission influence may be substantial. Generally, decisions about participants are made by country officials in accord with country policies. Travel arrangements and tickets for participants traveling to other countries for workshops are usually coordinated by the mission population officer even when funded by BuCen. BuCen workshop coordinators have developed procedures to pay for hotel rooms directly and to issue dollar checks for per diem costs to participants on the first day of the workshop. This has proven to be a better procedure than asking participants to pay for their own rooms with funds issued for that purpose. The BuCen coordinators apparently can also issue other checks, as required, through the U.S. embassies.

b. Instruction

Turning to instruction, although the calendar indicates that the Manila workshop instructors had been assigned, and their responsibilities defined, by April 2, 1982, it was clear from discussions on August 12 and confirmed by workshop observations that advance planning had been insufficient. Although much of the time of the three instructors borrowed from other parts of BuCen, (i.e., outside the Census and Survey Methods Branch), was made available without charge to the RSSA, these individuals apparently were expected to perform regular duties in addition to preparing for the workshop. Thus, in one case, lectures and exercises for the workshop were prepared in part during workshop evenings and weekend days, and in the other two cases the preparation of comprehensive technical materials during the summer months preceding the workshop led to the instructors taking less vacation time than otherwise might have been the case.

Team members had opportunities to observe most of the Philippines workshop instructors in class sessions, although the observations were limited to one half hour in the case of Paul Biemer, who did most of his teaching during the third week. High praise is in order for Dave Bateman's performance, and for the teaching approaches adopted by both Bateman and Biemer. For example, in addition to their thorough professional knowledge of the subject matter, they brought and distributed written materials on the topics they covered (Bateman-coverage error; Biemer-content error), including copies of their lecture notes. Thus, Bateman told the class that he would cover highlights and main points only (which he did) and that it was unnecessary for them to take notes on what he said, thus allowing them full opportunity for listening and asking questions or commenting. Both of these instructors used well designed visuals displayed on an overhead screen, e.g., a large type list of "Sources of Nonsampling Error," easily visible from the back of the room, and they brought exercises for class use. Bateman spoke slowly, he was attentive to participant questions, and he pointed out places in the lecture notes where

more detail was available on specified points. One slight problem with the Bateman and Biemer instruction was the almost total U.S. orientation, since these scholars were drawing on their work with U.S. censuses. Most of the time this approach was satisfactory, since the focus was on the latest approaches to census evaluation problem solving; however, it would have been useful to add LDC examples. Also the U.S. focus led occasionally to emphasis on certain problems to the exclusion of others, e.g., the U.S. PES gets at measures of missed individuals but not at estimates of missed dwelling units, which can be a big problem in LDCs. Perhaps Bateman and Biemer could ask Eli Marks for assistance in finding relevant LDC examples for inclusion in the manual(s) they are preparing.

Overall, the Bateman instruction is commendable: it was professional, well planned, and appropriately delivered. (Indeed, it is particularly commendable given Bateman's lack of previous experience in an LDC teaching situation.) The team's observation of Biemer leans strongly in this direction also, certainly in terms of materials prepared and use of visuals. Two points for future RSSA work are relevant here. First, for special topic workshops, such as census evaluation, the advance preparation of teaching materials is crucial, recognizing that some adjustments in level of presentation may be necessary at the workshop. The advance work by Bateman and Biemer definitely improved the learning process at the Manila workshop. Second, the Bureau has many experts like Bateman and Biemer; greater use of such experts should be encouraged. This is one reason that the RSSA arrangement can be advantageous to AID. In particular, we believe that greater use of senior staff from the IDDC and FDA is appropriate. (The team is perplexed why no IDDC staff member was part of the Manila workshop staff. For several years, IDDC staff have been evaluating LDC census data; surely that experience would have been relevant in a workshop on LDC census evaluation, and more productive than the overemphasis, through lectures and exercises, given to such topics as age-sex indices. We understand that discussions took place between BuCen and AID staff concerning the use of IDDC experts such as Arriago, Spitler and P. Johnson, but that no consensus was reached. That was unfortunate; for future workshops on census evaluation, or new data processing techniques, we stress the utility of drawing on the staff talent and LDC experience in IDDC.)

Finally, on staff, Laurie Lewis (ESCAP) provided relevant lectures on the application of indirect estimation techniques to census data. Ms. McGirr, who has gained much foreign student teaching experience in her Washington ISPC work, demonstrated good ability to stimulate discussion and participant interaction. Mr. O'Leary was very attentive to participant needs, physical arrangements, and instructor-participant interaction. However, adequate time had not been given to the development of first week laboratory exercises; they had not been worked through prior to

assigning them to the workshop participants. Also, the instructor who discussed coverage of the Hispanic Population of the U.S. in 1980 either was unaware or forgot that a copy was among the references handed out. The next time the workshop is given, the organizers should consider using the most up to date version of "Coverage of the National Population in the 1980 Census by Age, Sex, and Race" (Siegel, J., et al.), as the first handout to illustrate the product of census evaluation. This could be the document used to outline the various elements of evaluation. In the Manila Workshop, it was handed out on day 5 without giving it much emphasis.

c. Observations

The workshop was held in the Manila Hilton Hotel. All except two of the participants arrived at least one day prior to the workshop. There was some confusion about cashing dollar checks in the Philippines until it was discovered that American Express could handle them. The workshop conference room was large enough for the following: comfortably seat all participants at tables; space for two writing boards and a lectern in front; tables for supplies and training materials; and seating for three observers. Regulation of the air conditioning was difficult; it had to be turned off and on by hotel staff upon request by the coordinator.

The following lists summarize positive aspects of the workshop and observed and reported difficulties.

i. Positive Aspects of the Workshop

- (1) A detailed workshop content outline was ready in April, 1982 (although not effectively transmitted to relevant recipients). Also, staffing was fixed by April, 1982.
- (2) Participants were asked to complete a biographical sketch and a questionnaire regarding census evaluation activities in their country (see Appendix G).
- (3) Local administrative arrangements for participants in Manila were handled very well.
- (4) Missions in the region were alerted well in advance; all non-Philippine participants were identified by name by July, 1982.
- (5) Participant qualifications were very good. (See Appendix G for a list of participants.)
- (6) Many useful training materials, lecture notes, and references were reproduced, transported to Manila and handed out to participants. (See Appendix G for a list of most of these items.)

- (7) The use of visuals in weeks two and three increased participant understanding.
- (8) With some exceptions, appropriate exercises were carried out by participants under staff direction.

ii. Observed and Reported Workshop Difficulties

- (1) Participants did not know the details of workshop content very long, or at all, in advance of their departure for Manila. Mission staff report that they did not receive detailed information about the content and schedule, and hence they could not notify country statistical offices or participants.
- (2) Although a summary schedule of sessions for three weeks which indicated broad subject areas was handed out on the first day, (see Appendix G), no detailed outline was provided to the participants. (The detailed seven page outline given to the team in August was not used, presumably because the listed section on life table techniques was omitted from the workshop.) No reading list guide was provided to help participants select the most important readings from the large number of references handed out for demographic techniques of evaluation.
- (3) The workshop coordinator appeared to be somewhat uncomfortable with the subject matter to be covered in the last half of the workshop and (perhaps for this reason) or perhaps from lack of prior planning among faculty, he appeared to be somewhat ill at ease and tentative in his introductory remarks.
- (4) U.S. experience was perhaps overemphasized during the workshop.
- (5) Participants were judged by the coordinator to be so well qualified that some of the planned exercises on demographic techniques were thought to be too trivial; however, alternative lectures and/or exercises had not been planned.
- (6) During the first half of the workshop, the use of visual aids for teaching was limited to xeroxed handouts and to writing on the board. However, Dave Bateman and Paul Biemer made good use of visual aids, and they provided significant instruction at top professional levels.

E. Impressions from Participants

This section presents specific comments about the effectiveness of regional and country workshops obtained from individuals interviewed in Sierra Leone. (Similar comments were

obtained from participants interviewed in the Philippines and Indonesia, but are not given in detail below.)

While there was no clear consensus among the participants at the Sierra Leone country workshop regarding which parts of the workshop were most useful, several areas were mentioned as directly useful for specific jobs or as providing information that filled major knowledge gaps. Twelve out of the 25 workshop participants indicated that they had gained new important knowledge about how to design a questionnaire properly. Nine indicated that the information gained about how to flowchart census processes will be very helpful. Eight participants specified "data collection" in general, computer editing, "data processing" or development of tabulation plans as important areas in which they now felt more qualified. Respondents and BuCen staff said that the components of the workshop that focused on data collection--questionnaire construction, actual data collection in the field, and coding--were probably the most useful for participants of this workshop. More extensive preparation for the field exercise and actual time in the field would have been useful.

A number of participants indicated that they would have preferred a greater emphasis on noncensus data collection procedures, since they expect to be involved in small scale surveys (e.g., employment, income, health) in the future. Thus, general information about how to collect and process different kinds of social, economic and demographic data would be useful. These comments suggest that if a substantial number of workshop participants will not be directly involved in a census, greater workshop emphasis might be placed on general sample survey methodology.

The team member visiting Sierra Leone met with three Sierra Leoneans who had attended the BuCen regional workshops in Nairobi or Cairo. It appears that these workshops enhanced the capabilities of the participants for census and survey research activities. Two of the three participants are senior officials in the Central Statistics Office and will be involved in the forthcoming Sierra Leone Census in senior supervisory capacities. In spite of their extensive experience, both indicated that the knowledge gained from the regional workshop left them with a more comprehensive perspective on all phases of a census operation. Thus, in addition to being able to train their own staff better, they believe they are able to interact more effectively with other government officials because they have a better understanding of their own roles in the census.

The third participant is employed in the planning ministry. While he will not have direct line responsibility in the census, he expects to serve on the census planning committee that will coordinate the census data needs of several ministries.

Therefore, the knowledge he gained about the breadth of a census operation will be of value when he evaluates the data needs of a diverse group of potential data users.

A general team reaction to interviews with past and recent POPSTAN workshop participants is that the regional seminars should be aimed at a more general audience of middle and higher level bureaucrats, whose principal need is to get the "big picture." Technical workshops, such as those on census evaluation, could be aimed primarily at technical staff. In contrast, country workshops should focus more on detailed material specific to the country, so that participants gain a better understanding of how to actually collect and process the data; the more "hands on" field experience, the better.

#### F. Planning and Implementation of Workshops

Because the average participant in an African workshop will probably have less education and require more intensive assistance than his counterparts from other developing countries, and because the census planning capability (and the priority given to Census funding) will probably be less in most African countries, AID and BuCen, assisted by the missions, must make a commensurately greater effort when planning an African workshop. Logistic "success," including having appropriate participants and having adequate physical facilities and supplies, and gaining access to country specific documents for use in the training, will require more intensive advance planning in the African environment. Sending a BuCen trainer three to four months in advance to make appropriate arrangements will increase the likelihood of workshop success.

In general, country specific workshops require more intensive preparation in terms of providing country specific materials for workshop use. In some countries, particularly in Africa, it may also require considerable advance planning to ensure that appropriate participants are assigned to attend the workshop and that the timing of the workshop in relation to the proposed census data is appropriate (See section B above and Appendix F.)

In Africa, it might be advisable to conduct regional workshops in a limited number of geographically contiguous countries. This approach increases the likelihood that the participants will be more educationally and culturally homogeneous and that their demographic knowledge and the demographic milieu in which they live will be at least somewhat similar. It will also increase the likelihood that the workshop participants will be able to interact, having had common experiences and perhaps common social environments and political orientation.

Several important logistic, political, and substantive

criteria should be considered before a workshop location is determined and workshop participants are invited. These criteria include the willingness of a host country to provide appropriate facilities, and the political importance of the country from the perspective of the U.S. government. Perhaps the most important criteria are the needs of the host country and of its relevant professional staff, because the host country frequently contributes a disproportionately large number of workshop participants.

While no member of the workshop team was able to visit Gabon, several general comments regarding planning for the Gabon regional workshops are pertinent in this discussion. For example, Libreville, Gabon was chosen as the site for a 1981 regional mapping workshop because of the willingness of the host country to provide appropriate facilities. However, given the knowledge that about half the workshop participants were Gabonese and that the workshop was held a year after the Gabonese Census (and presumably nine years before the next census) the appropriateness of both the location and mix of participants must be questioned. In this case, the location and mix of the participants seems to have been less than optimal. (Additional comments regarding this workshop and the effectiveness of the mapping materials used there are in Appendix H.)

#### G. Recommendations

3.1 AID should continue to support three types of training workshops run by BuCen: (a) general census planning and implementation workshops, either country specific or for groups of countries, giving attention in some cases to other data collection methods, especially surveys; (b) mapping workshops; (c) special topic workshops, especially census evaluation and census data utilization. In carrying out this program, AID and BuCen should continue to coordinate with other groups that carry out and support training activities, especially the UN and groups supported by AID.

3.2 BuCen and AID should confer and coordinate closely on trainers, so that workshop participants receive the benefit of the most qualified trainers, drawing fully on expertise throughout the Bureau and on qualified outside consultants when necessary. In particular, there could be greater use of Bureau staff with international experience, e.g., staff in the International Demographic Data Center for census evaluation workshops.

3.3 When a workshop is planned for a country for which only limited demographic and population census information is available, BuCen should send an advance person three to four months before the workshop to do the following: (a) gather relevant demographic materials and planning statements for the forthcoming census; (b) meet with the relevant senior host country

personnel to maximize the spirit of cooperation for workshop planning, and to ascertain that the workshop is scheduled for the appropriate time; (c) learn about data or political problems that could impede the workshop (and the forthcoming census); (d) help arrange physical facilities and supplies; and, most important, (e) help select appropriate workshop participants. These steps are particularly important when planning African workshops. AID should recognize the crucial nature of these advance planning visits, and provide the necessary support for them.

3.4 The planning for country and regional workshops should differ in the following ways:

a. Country POPSTAN workshops should be oriented toward less educated and less knowledgeable participants. At the same time, more technical presentations are required for the middle level technicians at these workshops, because the latter persons may be more directly involved in census planning and implementation.

b. In workshops that include both middle and upper level bureaucrats, split sessions should be considered. Another approach worth trying is to conduct policy-type sessions for one or two days at the beginning and end of a workshop, and encourage senior officials to attend these sessions.

c. Since middle level technicians probably will constitute the largest group attending country POPSTAN workshops, the data collection segments of the POPSTAN materials should be emphasized and given the largest proportion of workshop time. Also, more time should be spent on realistic field exercises.

3. The particular circumstances of the African context should be considered when arranging workshops in African countries. These circumstances include: possibly more difficult logistic arrangements; participants having on average less training and less census experience than participants from other parts of the world; greater difficulty obtaining data for local examples. Thus, more advance planning and an advance trip are usually required when organizing an African workshop.

3.5 POPSTAN workshop participants should be selected from countries which will hold their censuses within the next two or three years. For mapping workshops, lead times of at least two years are necessary if the training is to be used efficiently. Likewise, participants attending special topic workshops should be selected with attention to use of the training received, e.g., a census evaluation workshop is good for participants in countries that will shortly or have recently taken a census.

3.6 Regional workshops for Africa should be limited to participants from clusters of countries, and these workshops

should focus on specified topics, such as new data compilation techniques.

3.7 When workshops include large numbers of participants who may not be directly involved in the censuses, instructors should discuss (a) how procedures can be modified for sample survey data collection, and (b) appropriate methods for collecting and processing a wider variety of social, economic, and demographic data (e.g., health, labor force, and income/asset information).

3.8 BuCen should conduct periodic workshops and refresher courses for BuCen trainers.

3.9 BuCen may have more long range impact on census quality through training of the trainers from developing countries. If such a program is developed, BuCen could provide consultation for country workshops designed and sponsored by the countries. This is a new type of activity that AID and BuCen should mutually explore.

3.10 BuCen should continue to provide support in the form of staff and materials for regional workshops organized (by other agencies) to provide training for sample surveys, mapping, census design, and data analysis.

3.11 Finally, we urge that senior administrators at BuCen, including the director of ISPC and the assistant director for international programs, continue to coordinate with AID and to monitor the planning, organization, and implementation of workshops, so that agreed upon RSSA objectives are achieved efficiently and in a timely manner. If it is not possible, for budget reasons, to maintain a separate unit to operate a RSSA supported training materials and workshops program, BuCen and AID might consider merging these RSSA activities with another appropriate BuCen unit.

#### IV. OTHER ISSUES

In this chapter we briefly consider a few additional issues concerning the POPSTAN program: long range planning; evaluation; workshop follow-up; coordination among groups that carry out census training activities; and the 1990 round of censuses. Recommendations are listed in Section F.

##### A. Long Range Planning

We noted earlier that the RSSAs are amended annually, and often not signed until well into the fiscal year. Instead of this short range planning approach, we recommend a longer range planning cycle. Since countries with upcoming censuses can benefit most from POPSTAN workshops held at appropriate times before the census, and since special topic workshops also need to be correctly phased (insofar as possible given that they are regional, and hence the dates of several censuses are under consideration), a planning time frame of more than one year is required. Also, there are the normal time requirements to arrange sites and carry through on workshop planning details. Furthermore, several groups are involved in census training activities; longer range planning cycles can help all of these groups plan and coordinate their training projects more efficiently.

We recommend that AID and BuCen adopt rolling three year planning cycles. That is, a three year plan should be worked out initially; then each year this plan would be adjusted as necessary, e.g., due to a changed census date in a country scheduled for a POPSTAN workshop, and a new third year would be added to the plan. Under this approach, during the remaining months of FY 1983, AID and BuCen would create a plan for fiscal years 1984-1986, with funding included in the FY 1984 RSSA amendment to cover that year's activities. During FY 1984 the plans for 1985 and 1986 would be adjusted as necessary, and a plan for 1987 added.

Along with this planning cycle, we encourage BuCen and AID to develop PERT charts for planning and monitoring purposes. These charts would indicate the schedules for planning and implementing the steps in each agreed upon activity.

##### B. Evaluation

Related to planning is evaluation. It would be useful for AID and BuCen to evaluate the effectiveness of the workshops on a more regular basis. We noted in Chapter III that the participant evaluation form might be improved. In addition, questions of program effectiveness can be addressed. For example, do the workshop participants use their training for census activities, say during the two or three years following the workshop? This

evaluation process could be carried out annually by AID and BuCen staff when the new rolling three year plan is being developed.

### C. Workshop Follow-up

A gap in the current training activities is the lack of consistent mechanisms for follow-up after regional or country specific training activities have been completed. At present there is no standard way for a country to request additional assistance or to suggest ways for improving the quality of the training activity. For example, in some cases there is no designated individual in either the local embassy, USAID, or BuCen who a host country participant or host country official can contact regarding workshops or possible additional assistance. To remedy this situation, a USAID staff member could be designated as the follow-up contact person.

In addition, in some countries the channels of communication between USAID missions, BuCen, and country officials could be clarified, so that when an LDC participant or official seeks information about census training or other BuCen services, a mechanism exists for expediting a response. It is in the interests of all parties to maximize the likelihood that an effective response will occur, and to minimize the possibility of an LDC individual feeling slighted because no response was received to a communication. To complete this follow-up process, and given the number of BuCen units and individuals who are directly or indirectly connected with the training activities, it is appropriate that one BuCen staff member coordinate the follow-up steps at BuCen. Normally this would be the same person who carries out training activity liaison with AID, and with relevant national and international organizations such as EWPI, the UN Statistical Office, regional UN organizations, and other contractors. An analogous position should exist within AID, and the principal coordination between AID and BuCen for census training should be between these two individuals. Essentially, the program operates this way now, and we encourage AID and BuCen to give attention to follow-up activities.

### D. Coordination Among Groups that Conduct or Support Census Training

Coordination among groups that conduct or support census training occurs now principally through informal channels. ISPC staff confer with UN Statistical Office staff; upcoming workshops are discussed when a BuCen staff member participates in a training workshop run by another group; and so on. Although we do not wish to propose additional costly meetings, there could be utility in periodic meetings of representatives from relevant groups in the nearby Washington area, who are engaged in census training activities or materials development. Such meetings might occur

once a year and include representatives of AID, BuCen, UNSO, Westinghouse (the DDD project includes some training activities), and, if the timing is such that a representative from EWPI is in Washington, someone from EWPI also. In addition, it would be good to bring in one or two nearby outsiders who have extensive LDC census experience. Along with coordination items, the agendas for these meetings could include attention to items A, B, and C above. We believe that this modest coordination effort would improve the impact of the limited funds available from AID for census training work.

A topic to consider early on in these coordination meetings is what new or updated materials would be most useful for the 1990 round of censuses. The development of these materials needs to be initiated very soon, e.g., FY 1983 or FY 1984 at the latest, if they are to be available for the planning and implementation of censuses in the 1990 round, to which we turn next.

#### E. The 1990 Round of Censuses

The team believes that AID should continue to support the improvement of census capabilities and data collection in developing countries, through the 1990 round of censuses. This AID assistance should include the BuCen POPSTAN program, modified as described in this report. The team also believes that BuCen should have a strong and continuing program of technical assistance to developing countries for the improvement of national census and statistics programs. The Bureau has an extensive record of providing such assistance. Planning for a census in the 1990 round is already underway in some countries. We encourage BuCen to determine what role it can most usefully have in the 1990 round of censuses, to formulate a program, and to seek adequate funding. Although such a program is broader than the training effort funded by AID under RSSA 4-75, AID financial support for the continuing POPSTAN training effort could be a core component of a larger BuCen program. In developing this broader program, BuCen would naturally take account of other AID supported projects, for example DDD and other BuCen international projects, and EWPI training activities. Also, the development of this program should be closely coordinated with the United Nations and its regional offices, the International Statistics Institute, IASI, and other bilateral, multilateral, and independent groups that provide support or technical assistance to LDCs for their censuses. Because of AID funding limitations, this broader BuCen program would require support from other sources.

#### F. Recommendations

4.1 AID and BuCen should adopt a rolling three year planning cycle, revised annually to add a new third year and to take into account changed circumstances in the LDCs.

4.2 AID and BuCen should evaluate the training program, including the workshops and materials development and dissemination. This evaluation process could be carried out annually by staff from both agencies.

4.3 AID and BuCen should give additional systematic attention to workshop follow-up activities, such as the handling of requests for information or assistance. This attention is needed particularly in countries that have small USAID mission or embassy staffs.

4.4 AID and BuCen should take the lead in arranging annual small scale coordination meetings that would bring together representatives of groups engaged in census training activities or materials development.

4.5 BuCen is encouraged to expand its program of technical assistance for LDC censuses, in addition to the training activities supported under RSSA 4-75.

## NOTES

- 1 In this document we frequently use the terms "AID should" and "BuCen should", in the interest of clarity and conciseness. We find this usage preferable to the more cumbersome phrase "the evaluators recommend". repeated over and over. Moreover, the use of "should" to express evaluating team recommendations is common and acceptable in APHA sponsored evaluations.
- 2 In materials provided at the end of November, 1982, BuCen notes that \$2.46 million was provided, exclusive of participant travel, and that \$2.25 million of this sum was actually expended on the development of training materials and the implementation of the workshops, FY 1978 - FY 1982. Unexpended funds were transferred to separate participant funds or to other projects.
- 3 This analysis is based on data provided by the U.S. Bureau of the Census. Participant information for the Sierra Leone country workshop in July-August, 1982 was added to the total. Participants in the September, 1982 Philippines workshop are not included.
- 4 Estimates from Appendix E. This estimate includes unspecified numbers of individuals who may have attended a Washington workshop or Census training program. It includes participants of 1982 Sierra Leone workshop but excludes participants in 1982 Philippines census evaluation workshop. Totals may include individuals who attended more than one workshop.

APPENDIX A

Item 1

Trip Report - Frank L. Mott  
Travel to Freetown, Sierra Leone  
July 31 to August 10, 1982

for

Evaluation of U.S. Bureau of the Census  
Country Workshop in Freetown, Sierra Leone

The objectives of the visit to Freetown, Sierra Leone were (1) to interview participants in the Sierra Leone country workshop, (2) to interview appropriate government and university officials regarding the effectiveness of the workshop, and (3) to interview Sierra Leone government officials who had attended BuCen regional workshops in Cairo or Nairobi. A complete list of individuals interviewed in Freetown is attached. It includes country workshop participants, regional workshop participants, government officials, U.S. Embassy officials, and U.S. Census Bureau workshop trainers. A comprehensive statement based on these interviews is included in the evaluation team report and its appendices.

One important objective of this visit was to evaluate the efficacy of a country workshop in an African environment with and without the possibility of a personal advance planning visit. Thus, I made every effort during my site visit to include interviews with non-workshop country officials knowledgeable about the Sierra Leone demographic and Census planning status. This issue is considered in detail in the evaluation team report.

I had originally intended to include a brief trip to Libreville, Gabon in my Africa trip, to evaluate the 1981 Gabon Census mapping workshop. Transportation logistics negated this possibility. Some comments regarding the Gabon workshop are included in the team report.

## Individuals Personally Interviewed

### 1. Workshop Participants

Armand Thomas, Acting Director, Demographic Research and Training Unit, Fourah Bay College.

Benedict Allie, Field Supervisor, Central Statistics Office

Arthur Rhodes, Social Development Worker, Ministry of Social Welfare and Rural Development

Charles Macauley, Statistical Field Clerk, Central Statistics Office

Ralph Johnson, Industrial Relations Section, Ministry of Labor

Frederick Walker, Field Supervisor, Demographic Unit, Fourah Bay College

Ansumana Kamara, Births and Deaths Office, Medical Statistics Unit

John Samu, Department of Demography, Njala University College

Saida Koroma, Field Enumerator, Central Statistics Office

Joseph E. Bangali, Data Processing Officer, Planning Evaluation Monitoring and Services Unit, Ministry of Agriculture

Reynold E. Belle Taylor, Demographic Survey Staff Supervisor, Demographic Research and Training Unit, Fourah Bay College

### 2. Regional Workshop Participants

G. John, Planning Officer, Ministry of Development and Economic Planning, Central Planning Unit (Attended Cairo regional workshop)

Abdul Rahman, Chief, Field Division, Central Statistics Office (attended Kenya regional workshop)

Gerald Wood, Head, Demographic and Vital Statistics Section, Central Statistics Office (attended Kenya regional workshop)

3. Others in Sierra Leone

Professor G. M. K. Kpedekpo, I.L.O. Population Planning Adviser, Ministry of Development and Economic Planning, Central Planning Unit (also P.O. Box 1011, Freetown)

Dr. E. C. Benjamin, Director of Statistics, Central Statistics Office

Alex Dickie, U.S.A.I.D. Representative, American Embassy, Freetown

Yomi Decker, U.S.A.I.D. Staff, American Embassy, Freetown

Therese Healey, U.S. Ambassador, American Embassy, Freetown

Joe Quinn, Agricultural Program Coordinator, Far World Bank, Freetown

Samuel A. T. Horton, Professional Head, Medical Statistics Unit, Freetown

4. Interviews in the United States or Sierra Leone with Census Personnel

Vivian Toro, Programmer, I.S.P.C., U.S. Bureau of the Census

James M. Aanestad, Assistant Division Chief, I.S.P.C., U.S. Bureau of the Census

Leo Dougherty, Survey Statistician, I.S.P.C., U.S. Bureau of the Census (headed Census workshop team to Sierra Leone)

Nina J. Pane Pinto, Chief, Census and Survey Methods Branch, I.S.P.C., U.S. Bureau of the Census

Jim Davis, Cartographer, U.S. Bureau of the Census

## APPENDIX A

### Item 2

Trip Report - H. Bradley Wells  
Travel to Manila, Philippines  
August 30 - September 6, 1982  
and  
Honolulu, Hawaii,  
September 6-12, 1982

1. Purpose of Travel - All travel was done to carry out assigned tasks as a member of the American Public Health Association team responsible for evaluating the accomplishments of the United States Census Bureau (BuCen) under RSSA-4-75 with the United States Agency for International Development (AID).

2. Manila

Tasks assigned included:

- (a) Observation of the Workshop on Census Evaluation, August 30 - September 3, 1982.
- (b) Attempt to interview six Filipinos who had attended other BuCen or East West Population Institute (EWPI) census related training programs.
- (c) Work with Dr. Robert Lapham for one day in coordinating our tasks in Manila and in preparing the evaluation report.

Because of a traveling schedule mix-up, arrival in Manila was on August 30 rather than August 29 and, therefore, the start and the first one and one half hours of the opening sessions of the workshop were mixed. All other workshop sessions were observed except for Wednesday and Thursday afternoons when visits were made to USAID and the National Census and Statistics Organization (NCSO).

On the morning of September 2, at the request of the workshop coordinator, I briefly described the Birth Registration Tests conducted in the U.S. in 1940, 1950, and 1968.

Five of the six former participants were employees of the NCSO; two were available in Manila and were interviewed; one (later interviewed by Dr. Lapham) was conducting a training seminar, one was at Australian National University completing a masters degree program, and the other was on leave.

Dr. Lapham arrived as scheduled on Saturday, September 4. Saturday and Sunday were spent drafting sections of the report.

Observations and recommendations based on the Manila visit are included in the Evaluation Report.

3. East-West Population Institute (EWPI)

The major purpose of visiting the EWPI was to determine the amount and type of BuCen cooperation with and involvement in the census-related training programs conducted by the EWPI during 1978-1982. Additional aims were:

- a) to determine the extent to which POPSTAN publications and the Manual on Mapping had been and are currently used in EWPI training programs, and
- b) to determine how individual staff members evaluated the usefulness of the BuCen training materials.

Ms. Janet Mason, Administrative Officer, coordinated the visit, provided a list of 13 training programs which EWPI has conducted and a list of BuCen staff who have participated in 10 of the programs.

Two training program coordinators were interviewed at EWPI and the telephone numbers of four others who are now on the mainland were obtained.

Observations and recommendations based upon the EWPI visit are included in the Evaluation Report.

PERSONS INTERVIEWED IN MANILA, PHILIPPINES

USAID

Dr. Steve Sinding, Director (Chief), Health, Nutrition and  
Population

Ms. Zinnia Rionda, Project Officer

National Census and Statistics Office

Dr. Tito Mijares, Director

Mr. Felix T. Antonio, Chief Cartographer

Mr. Octavid M. Obedoza, Senior Statistician, Management and  
Planning Staff

PERSONS INTERVIEWED IN HONOLULU, HAWAII  
September 7-8, 1982

East-West Population Institute

Dr. Lee-Jay Cho, Director

Ms. Alice Harris, Resource Materials Specialist

Dr. James A. Palmore, Research Associate and Director,  
Population Studies Program, University of Hawaii

Mr. Robert Hearn, Managing Editor, Asia and Pacific Census  
Forum

Ms. Janet Mason, Administrative Officer

Dr. Robert D. Retherford, Research Associate and Assistant  
Director for Graduate Study

Dr. Peter N. D. Pirie, Research Associate and Professor of  
Geography, University of Hawaii

Dr. Robert W. Gardener, Research Associate

USAID

Dr. John Chao

## APPENDIX A

### Item 3

Indonesia Trip Report  
Robert J. Lapham  
August 28 - September 3, 1982  
for  
Evaluation of U.S. Bureau of the Census POPSTAN Project

The objectives of the visit to Indonesia were to interview participants in previous POPSTAN workshops, to discuss the POPSTAN workshops and materials with appropriate Indonesian and USAID officials, and to seek clues regarding utilization and effectiveness of the POPSTAN materials. A small portion of the time in Indonesia was also allocated to discussions concerning the NAS fertility determinants project (e.g., the conference in November 1982) and research on the measurement of program effectiveness.

Interviews were held with four POPSTAN workshop participants, 3 who attended the 1979 mapping workshop in Jakarta, Indonesia, and a programmer who attended the CONCOR workshop at the East-West Population Institute in 1979. Meetings to discuss the use of POPSTAN materials and the usefulness of POPSTAN workshops were held with officials at the Central Bureau of Statistics, the National Family Planning coordinating Board, and USAID. The results of these interviews and meetings will be reflected in the evaluation team report.

Attached is a list of persons visited in Indonesia. Two other workshop attendees I had hoped to see were not available; one (Machin Ervan) is attending a Department of Interior Geological Survey mapping workshop in Iowa. (After interviewing available workshop participants in Jakarta, I decided that it was probably not worth the expense, and administrative trouble for the Indonesians, to attempt to interview workshop participants now stationed in Sulewesi or Sumatra. Rather, it seemed more appropriate to use the limited time to review the POPSTAN program with officials in Jakarta. USAID Jakarta concurred in this view.)

Report on Trip to Indonesia  
Robert J. Lapham  
August 30 - September 3, 1982  
for  
Evaluation of U.S. Bureau of the Census POPSTAN Project

List of Persons Visited in Indonesia

Central Bureau of Statistics

Mr. Padang Simandjuntak, staff member, Cartography Division  
(Reprography)  
Mr. Suradin, staff member, Cartography Division (Reprography)  
(Mr. Suradin and Mr. Padang attended the POPSTAN mapping  
workshop, Jakarta, 1979.)  
Ms. Awalina Hadipramono, computer programmer (attended the CONCOR  
workshop, EWPI, 1979)  
Mr. Si Gde Mamas, Deputy Director (for Census and Surveys)  
Ms. Sri Poedjastuti, Chief, Bureau of Population Studies  
Mr. B. Suwandhi, Chief, Food Crops Statistics Division  
Dr. Richard Sturgis, consultant (Population Council)

Jakarta Provincial Statistics Office

Mr. Purwatanoyo, Cartography Division  
(attended the POPSTAN mapping workshop, Jakarta, 1979)

National Family Planning Coordinating Board (BKKBN)

Dr. Haryono Suyono, Deputy for Family Planning  
Dr. Peter Sumbung, Deputy for Administration  
Dr. Pujo Rahardjo,  
Mr. Sudamardi  
Mr. Tom D'Agnes, consultant (USAID)

USAID

Charles Johnson, Chief, Office of Population  
Morrie V. Blumberg, Office of Population  
David Piet, Office of Population

Others

Dr. Masri Singarimbun, Director, Population Institute, Gadjara Mada  
University  
Mr. Gary Lewis, Westinghouse Health Systems (in Jakarta on CPS  
survey)

## APPENDIX A

### Item 4

Trip Report  
POPSTAN Evaluation Team  
Robert J. Lapham

Manila, Philippines  
September 5-10, 1982

The purpose of the trip to the Philippines was to observe the POPSTAN census evaluation workshop and to interview persons who attended previous workshops. Attention was also given to discussions with local officials about arrangements for POPSTAN workshops and future needs.

The detailed observations of the workshop are incorporated in the evaluation team report. Most workshop sessions held September 6-9 were observed, and individual discussions about the workshop (including logistical arrangements) were held with participants. I had a fair amount of contact also with workshop staff. In addition, discussions about POPSTAN were held with USAID officials (Sindig and Dumm), the Dean of the Population Institute at the University of The Philippines (Mercedes Concepcion), and the Director of the National Census and Statistical Office (Tito Mijares). The meetings with these individuals also included discussion of other activities such as the forthcoming AID supported DDD project and the November 1982 NAS Fertility Determinants Conference.

On Sunday, September 5, I worked with Bradley Wells coordinating the work that he had accomplished during the previous week with the activities I would undertake during the week of September 6, reviewing our observations to date, and outlining and preparing sections of the report that could be prepared at that point, principally the evaluation of POPSTAN materials.

Discussions were also held with Laurie Lewis, ESCAP Regional Advisor on Censuses and Surveys. He gave some lectures at the workshop, and he and I conferred about the workshop focus, content, organization, and training personnel. Bradley Wells had been asked to lecture during the first week of the workshop, and I was asked to do so during week two. I spoke on the complementarity of the data collection systems, and gave examples of the use of census data in constructing estimates of fertility and mortality.

A list of persons visited is attached.

Trip Report  
POPSTAN Evaluation Team  
Robert J. Lapham

Manila, Philippines  
September 5-10, 1982

List of Persons Visited

Workshop

Participants (see attached list)

|                      |                      |
|----------------------|----------------------|
| Staff - Nancy McGirr | Bureau of the Census |
| - William O'Leary    | " " " "              |
| - David Bateman      | " " " "              |
| - Paul Biemer        | " " " "              |

Laurie Lewis, ESCAP Regional Advisor (Demography)

Evaluation Team - Bradley Wells

Others:

Daria G. Luna, Chief, Mapping Division, National Census and Statistics Office (participant in previous POPSTAN mapping workshop)

Dr. Mercedes Concepcion, Dean, University of the Philippines Population Institute (UPPI)

Dr. Tito Mijares, Executive Director, National Census and Statistics Office

Dr. Amanda Valenzuela, Dean, School of Public Health

Steven Sinding, Chief, Population and Health, USAID, Manila

John Dumm, Population and Health, USAID, Manila

John Laing, Population Council and UPPI

## APPENDIX B

### Related Training Programs

Several bilateral and international groups carry out training programs designed to improve the skills of LDC personnel who work on the organization and implementation of census programs and on the preparation and analysis of census data. The East-West Population Institute (EWPI) has carried out a series of Census Training Programs for Asian country census personnel; in recent years this EWPI program has received AID support. Examples of topics covered recently include mapping and evaluation; in addition, EWPI conducts short-duration technical meetings for more in-depth study by fewer individuals of specified census topics. BuCen maintains close ties with these EWPI training programs, providing BuCen staff as lecturers and resource persons.

BuCen operates a one year basic training program in the International Statistical Programs Center (ISPC). Students are sponsored by several groups, including AID missions, UN agencies, and government statistical agencies. This training program covers a wider range of subject matter than the POPSTAN project, e.g., agricultural surveys and censuses and computer data systems. BuCen also runs other training programs of shorter duration. Other AID contractors run workshops that frequently give attention to one or more aspects of censuses, e.g., the DUALabs and NTS on computer software for processing and editing census data, and the NAS on use of census (and other) data to estimate levels and trends of fertility and mortality.

The UN Regional Demographic Training Centers by definition conduct training programs that include, but are not limited to, census topics. These centers, located in Santiago (CELADE), Cairo (CDC), Bombay, and Bangkok (ESCAP) provide short-term as well as one and two year certificate granting training programs. In addition, other UN regional agencies such as ECWA and ECA conduct training programs that have included census topics. For example, in January 1980 ECWA carried out a Regional Census Training Workshop for staff members from statistical agencies and related groups in Arabic speaking countries. Two programs exist in West Africa, IFORD in Yaounde, Cameroon (French language) and RIPS in Accra, Ghana (English language).

French organizations also assist with training efforts, although much of the work of groups such as ORSTOM and INSEE has been on the implementation and analyses of surveys. For example, manuals on demographic survey methodology were developed in the 1970s jointly by INED, ORSTOM and INSEE.

Thus, there is a substantial amount of training and technical assistance work related to censuses, and the above listing is not

exhaustive. Moreover, there is much short-term and long-term technical assistance provided by bilateral and multilateral as well as private organizations. Nevertheless, LDC training needs for all phases of censuses remain substantial, particularly in Africa.

## APPENDIX C

### Examination of POPSTAN Part E: Intercensal Household Survey Program for POPSTAN

The purpose of Part E in the POPSTAN series is to describe the utility, organization, and problems to be solved in an intercensal household survey program. The volume covers in detail program objectives, content, sampling design and problems, administrative structures, enumeration plans, processing operations, and publication and use of data. The volume is comprehensive, and it presents a number of excellent points for government officials concerned with the establishment of an intercensal survey program. This is not the place to detail all of the important points correctly emphasized; they include as just a few examples: the appropriateness of an intercensal program to provide information at the national level or on broad geographic areas; use of a one-week recall period for employment status rather than the one-month period recommended for use in the POPSTAN census; the use of PPS in the sample design; the review of enumerators' work by crew leaders during the field operations; emphasizing the importance of not pressing the analysis beyond the level of validity of the statistics: and so on.

Thus, the volume provides a good background document for officials and advisors involved in the development of intercensal survey programs. However, there are a number of ways in which the volume could have been improved. Although we do not recommend that BuCen rewrite Part E of POPSTAN, we discuss Part E problems, some more important and some less important, in the hope that these concerns will be considered by BuCen when developing materials in the future, including new workshop training materials (handouts, visual aids, etc.). The major identified problems are noted below, together with two examples of minor problems.

#### Major Problems

1. As indicated in the discussion of earlier volumes the intercensal household survey program volume lacks adequate attention to the LDC context. Among the many examples that could be noted, we list just three.

The first example comes from Chapter 3, cf page 27: there is no discussion of how to handle new shantytown areas in expanding cities, i.e., how to deal with the open boundaries for such EA's or entirely new areas at the edges of many LDC cities around the world, and certainly in POPSTAN. The same point could be made regarding the discussion on page 32 subsampling new construction. The volume treats this topic as though all new housing units in POPSTAN were easily identifiable. This is doubtful, and the problem should be addressed from an LDC perspective. (The

discussion on page 32 reads more like it were occurring in the suburbs of Cincinnati rather than the bidonvilles of Baru.)

Second, there is no mention of contacting and working with local area leaders (the muchtar, kapalaḍesa, etc.)--such persons can be extremely helpful in insuring respondent participation in LDCs--in contrast to the type of statement found on page 53 regarding sending letters from senior NSO officials to refusal households.

The third example comes from the uses of data section. The following quote has a strong western flavor: "The fact that statistics may affect individual action may be demonstrated by the often erratic behavior of commodity markets in response to the issuance of favorable or adverse economic data".

2. The development of the necessary sample size for a survey program that will provide information within accepted limits is described in Chapter 3. Details are presented on how to deal with sampling variance including an allowance for a moderately clustered sample. Most surprisingly, however, there is no mention of the bias factor, nor even mention of the MSE model. For POPSTAN, as elsewhere, surely the bias component will be a major problem, and allowance for it should be considered in designing the survey program sample. Respondent bias, interviewer bias, and so on, will all enter the picture. Also, the non-response adjustment procedures will lead to bias. We find this omission particularly puzzling given the depth of professional talent available at the Bureau, e.g., David Bateman's work on MSE in conjunction with PES.

3. The proposed home-study training program in Part E is inappropriate and inadequate. Most LDC situations will not adapt well to home study training, nor to the limited number of training days provided in group sessions. This strong comment relates to the problem of non-attention to LDC settings. A training program built around home study is likely to lead to ill-equipped enumerators. This is especially so when combined with the inadequate length of group training and the extremely small amount of field training envisaged (one day, followed by one-half day to discuss the results of 6-8 interviews done in the field the previous day). (See pages 48-49 cf.) Likewise inadequate is the retraining every six months or so, which later on includes training on new questionnaires as additional topics are added to the survey program. It would seem more appropriate for an LDC like POPSTAN to have longer training of enumerators--say up to two weeks--with more back and forth field work/discussion of completed interview forms. Incidentally, this approach would provide more test interviews for use in developing the computer programs described elsewhere in Part E. Also, the crew leaders should do a

modest number of interviews (perhaps 10-12) during their training and have these checked by the supervisor and assistant.

4. The suggested natality questionnaire (page 86) has a serious flaw: it does not ask whether or not each child is "still living". In other words, the standard set of Brass questions is not complete. This is most unfortunate, since almost all demographers who work with LDC countries strongly encourage the inclusion of the standard Brass questions (which also include whether or not the child is still living at home). Recall that this is an intercensal survey program designed (per page 3) among other things to "appraise the impact of population growth" for which information is needed on births and deaths. While good, the periodic collection of retrospective information on births and deaths will not be complete. Therefore, standard indirect estimation procedures, that combine information obtained in the Brass questions with the births during the last year (or other recent period), could provide useful tools for assessing fertility and child mortality. The inclusion of the "still living" information in the natality questionnaire not only provides the basis for estimating infant mortality; in addition, it improves the natality information since the respondent is signaled more strongly that the interviewer is seeking information on all births, and not just information on children still alive.

5. Finally, we note that POPSTAN permits any responsible adult to provide the information for the natality questionnaire. We doubt that this is wise for POPSTAN. If there is to be attention to natality in selected rounds, the manual should discuss the potential advantages of having this round include direct interviewing of female respondents. The discussion would include the need in most cases for female interviewers, and so on. Several countries have used female interviews to collect natality information, e.g., Algeria in one round of their multi-round demographic survey, 1969-70.

Turning to minor considerations, we provide two illustrative examples. First, the discussion of population adjustment on page 61 leaves out any mention of field checks, which could be done at least on a sample basis. Frequently it is more possible (and certainly better) in LDCs to conduct some field checks rather than depending solely on machine/office editing to make adjustments. Second, the title of Chapter E.7 includes "analysis", but the chapter has very little information on how to carry out analysis per se. It describes publication of data in forms that can be useful to a variety of audiences, but this is not analysis, and indeed, the chapter correctly cautions against providing too much "interpretation" when publishing the basic information obtained through the survey program.

APPENDIX D

Dissemination of POPSTAN and Mapping Materials

Table D.1. Number of Manuals Sent Out by Country

Table D.2. Manuals Sent to Workshops

Note: This information is as supplied by the Bureau of the Census. See text, Chapter II, for a discussion of the uncertainty regarding the numbers shown in Table 1.

AS OF AUGUST 1, 1982

Table D.1  
NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY        | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|----------------|---------|--------|---------|---------------------------|--------|---------|
|                | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Afghanistan    | 4       |        |         | 1                         |        |         |
| American Samoa | 2       |        |         |                           |        |         |
| Angola         | 1       | 1      |         |                           |        |         |
| Antiga         | 3       |        |         | 18                        |        |         |
| Argentina      | 7       | 5      | 11      | 7                         | 5      | 14      |
| Australia      | 10      |        |         | 8                         |        |         |
| Bahamas        | 2       |        |         | 1                         |        |         |
| Bahrain        | 3       |        |         | 1                         |        |         |
| Bangladesh     | 20      |        |         | 7                         |        |         |
| Barbados       | 6       |        |         | 26                        |        |         |
| Belgium        | 1       |        |         | 1                         |        |         |
| Belize         | 2       |        |         |                           |        | 11      |
| Benin          | 1       |        |         |                           |        |         |
| Bermuda        | 2       |        |         | 1                         |        |         |
| Bolivia        | 7       |        | 6       | 4                         |        | 11      |
| Botswana       | 5       |        |         | 2                         |        |         |
| Brazil         | 8       |        |         | 5                         |        | 7       |
| Brunei         | 1       |        |         |                           |        |         |
| Burma          | 6       |        |         | 1                         |        |         |
| Burundi        | 1       |        |         |                           | 6      |         |
| Cameroun       | 10      | 11     |         | 4                         | 5      |         |

D-2

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY                  | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|--------------------------|---------|--------|---------|---------------------------|--------|---------|
|                          | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Canada                   | 17      |        |         | 23                        |        |         |
| Canal Zone               | 1       |        |         | 6                         |        |         |
| Caroline Islands         | 1       |        |         |                           |        |         |
| Cayman Islands           | 2       |        |         | 1                         |        |         |
| Central African Republic | 3       |        |         | 1                         | 1      |         |
| Chad                     | 2       |        |         | 4                         |        |         |
| Chile                    | 7       | 4      |         | 5                         |        | 9       |
| China                    | 5       |        |         |                           |        |         |
| Colombia                 | 6       |        | 9       | 3                         |        | 11      |
| Congo                    |         | 1      |         |                           | 1      |         |
| Cook Island              | 3       |        |         |                           |        |         |
| Costa Rica               | 29      |        | 15      | 31                        |        | 15      |
| Cuba                     | 2       |        | 1       | 1                         |        |         |
| Cyprus                   | 2       |        |         | 1                         |        |         |
| Dominica                 | 2       |        |         | 1                         |        | 2       |
| Dominican Republic       | 2       |        | 2       | 1                         |        | 9       |
| Ecuador                  | 15      |        | 21      | 6                         |        | 18      |
| Ecuadorial Guinea        |         |        | 1       |                           |        | 1       |
| Egypt                    | 49      |        |         | 31                        |        |         |
| El Salvador              | 4       |        | 8       | 1                         |        | 9       |
| England                  | 19      |        |         | 14                        |        |         |

0-3

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY         | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|-----------------|---------|--------|---------|---------------------------|--------|---------|
|                 | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Ethiopia        | 19      |        |         | 10                        |        |         |
| Fiji            | 3       |        |         |                           |        |         |
| France          | 10      |        |         | 5                         |        |         |
| Gabon           | 9       |        |         | 9                         |        |         |
| Gambia          | 4       |        |         | 1                         |        |         |
| Ghana           | 19      |        |         | 17                        |        |         |
| Gilbert Islands | 1       |        |         |                           |        |         |
| Greece          | 1       |        |         | 1                         |        |         |
| Grenada         | 3       |        |         |                           |        |         |
| Guadeloupe      | 1       | 1      |         |                           |        |         |
| Guam            | 2       |        |         |                           |        |         |
| Guinea          | 7       | 2      |         | 1                         | 2      |         |
| Guyana          | 6       |        |         | 5                         |        | 6       |
| Haiti           |         | 4      | 1       |                           | 4      | 1       |
| Honduras        | 1       |        | 4       |                           |        | 4       |
| Hong Kong       | 5       |        |         | 3                         |        |         |
| Hungary         | 1       |        |         | 1                         |        |         |
| Honduras        |         |        |         |                           |        |         |
| India           | 32      |        |         | 82                        |        |         |
| Indonesia       | 32      |        |         | 42                        |        |         |
| Iraq            | 4       |        |         | 7                         |        |         |

4-4

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY     | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|-------------|---------|--------|---------|---------------------------|--------|---------|
|             | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Israel      | 1       |        |         |                           |        |         |
| Italy       | 1       |        |         | 11                        |        |         |
| Ivory Coast | 3       | 2      |         | 2                         | 2      |         |
| Jamaica     | 9       |        |         | 13                        |        |         |
| Japan       | 8       |        |         | 9                         |        |         |
| Jordan      | 3       |        |         | 1                         |        |         |
| Kenya       | 11      |        |         | 2                         |        |         |
| Lebanon     | 1       |        |         |                           |        |         |
| Lesotho     | 3       |        |         | 3                         |        |         |
| Liberia     | 15      |        |         | 4                         |        |         |
| Madagascar  | 2       | 3      |         | 1                         | 2      |         |
| Malawai     | 1       |        |         |                           |        |         |
| Malaysia    | 8       |        |         | 4                         |        |         |
| Maldives    | 3       |        |         |                           |        |         |
| Mali        | 2       | 3      |         | 1                         | 1      |         |
| Mauritania  | 1       |        |         |                           |        |         |
| Mauritius   | 35      |        |         | 3                         |        |         |
| Mexico      | 15      |        | 9       | 14                        |        | 26      |
| Montserrat  | 2       |        |         | 1                         |        |         |
| Morocco     | 4       | 4      |         | 1                         | 52     |         |
| Mozambique  | 1       |        |         |                           |        |         |

0-5

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY            | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|--------------------|---------|--------|---------|---------------------------|--------|---------|
|                    | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Nepal              | 18      |        |         | 6                         |        |         |
| Netherlands        | 2       |        |         | 2                         |        |         |
| New Caledonia      | 2       |        |         | 1                         |        |         |
| New Zealand        | 6       |        |         | 4                         |        |         |
| Nicaragua          | 2       |        | 6       | 1                         |        | 3       |
| Niger              | 1       | 3      |         |                           | 4      |         |
| Nigeria            | 46      |        |         | 6                         |        |         |
| Niue Islands       | 1       |        |         |                           |        |         |
| North Sumatra      | 2       |        |         |                           |        |         |
| Oman, Sultanate of | 1       |        |         | 1                         |        |         |
| Pacific Islands    | 4       |        |         |                           |        |         |
| Pakistan           | 39      |        |         | 4                         |        |         |
| Panama             | 4       |        | 3       | 3                         |        | 6       |
| Papua New Guinea   | 10      |        |         | 4                         |        |         |
| Paraguay           | 4       |        | 32      | 3                         |        | 37      |
| Peru               | 11      |        | 9       | 3                         |        | 17      |
| Philippines        | 32      |        |         | 58                        |        |         |
| Poland             | 2       |        |         | 2                         |        |         |
| Portugal           | 1       |        |         | 1                         |        |         |
| Puerto Rico        | 1       |        | 3       | 1                         |        | 11      |
| Rwanda             |         | 3      |         |                           | 1      |         |

9-0

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY                | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|------------------------|---------|--------|---------|---------------------------|--------|---------|
|                        | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Saint Christopher (WI) | 6       |        |         | 1                         |        |         |
| St. Vincent            | 1       |        |         |                           |        |         |
| Saudi Arabia           | 19      |        |         |                           |        |         |
| Senegal                |         | 8      |         |                           | 8      |         |
| Sierra Leone           | 11      |        |         | 7                         |        |         |
| Singapore, Republic of | 7       |        |         | 2                         |        |         |
| Solomon Islands        | 1       |        |         |                           |        |         |
| Somalia                | 11      |        |         | 3                         |        |         |
| South Korea            | 31      |        |         | 26                        |        |         |
| Spain                  | 1       |        |         | 1                         |        |         |
| Sri Lanka              | 41      |        |         | 31                        |        |         |
| Sudan                  | 11      |        |         | 1                         |        |         |
| Suriname               | 1       |        |         | 1                         |        |         |
| Swaziland              | 1       |        |         |                           |        |         |
| Switzerland            | 6       |        |         | 2                         |        |         |
| Syria                  | 8       |        |         | 1                         |        |         |
| Taiwan                 | 8       |        |         | 4                         |        |         |
| Tanzania               | 7       |        |         | 2                         |        |         |
| Thailand               | 39      |        |         | 41                        |        |         |
| Togo                   | 2       | 1      |         | 1                         | 3      |         |
| Trinidad & Tobago      | 5       |        |         | 54                        |        |         |

0-7

7

NUMBER OF MANUALS  
SENT OUT BY COUNTRY

| COUNTRY              | POPSTAN |        |         | MAPPING MANUAL & WORKBOOK |        |         |
|----------------------|---------|--------|---------|---------------------------|--------|---------|
|                      | ENGLISH | FRENCH | SPANISH | ENGLISH                   | FRENCH | SPANISH |
| Tunisia              | 3       | 3      |         | 1                         | 3      |         |
| Turkey               | 3       |        |         |                           |        |         |
| Turks & Caicos       | 1       |        |         |                           |        |         |
| Tuvalu Islands       | 1       |        |         |                           |        |         |
| Uganda               | 11      |        |         | 14                        |        |         |
| United Arab Emirates | 1       |        |         |                           |        |         |
| Upper Volta          | 3       | 6      |         | 1                         | 3      |         |
| United Nations       | 57      | 37     |         |                           |        |         |
| United States        | 303     | 2      | 12      | 409                       | 12     | 30      |
| Venezuela            | 7       |        | 6       | 3                         |        | 87      |
| Virgin Islands       | 3       |        |         | 1                         |        |         |
| West Germany         | 3       |        |         | 28                        |        |         |
| West Indies          | 1       |        |         |                           |        |         |
| Western Samoa        | 1       |        |         | 1                         |        |         |
| Yemen                | 5       |        |         |                           |        |         |
| Yugoslavia           | 1       |        |         | 1                         |        |         |
| Zaire                | 13      | 2      |         |                           | 2      |         |
| Zambia               | 45      |        |         | 2                         |        |         |
| Zimbabwe             | 5       |        |         |                           |        |         |
| TOTALS               | 1,435   | 69     | 159     | 1,252                     | 117    | 345     |

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Table D.2  
MANUALS SENT TO WORKSHOPS

| <u>Date</u> | <u>Place</u>  | <u>Number and Type of Manuals</u>  |
|-------------|---|--|
| 5/2/78      | IAGS - Cartographic School<br>for a workshop to Leroy<br>Anestad                          | 30 copies of Mapping and Workbook (EN)   |
| 8/4/78      | UN -- Garcia-Frias<br>for Peru Workshop   | 80 copies of Mapping and Workbook (EN)   |
| 11/14/78    | UN -- Garcia-Frias  | 40 copies of Mapping and Workbook (EN)   |
| 11/27/78    | IAGS - Cartographic School<br>for Kenneth Rinehart  | 25 copies of Mapping and Workbook (EN)   |
| 3/5/79      | BARBADOS POPSTAN WORKSHOP<br>to use at the workshop                                       | 25 copies of Mapping and Workbook (EN)   |
| 4/3/79      | Korea<br>for a workshop   | 25 copies of Mapping and Workbook (EN)   |
| 4/12/79     | INDONESIA MAPPING WORKSHOP<br>for use at the workshop                                     | 30 copies of Mapping and Workbook (EN)   |
| 6/4/79      | SUDAN MAPPING WORKSHOP<br>for use at the workshop   | 25 copies of Mapping and Workbook (EN)   |
| 8/27/79     | UN -- Garcia-Frias<br>for Syrian Workshop   | 60 copies of POPSTAN -- Parts A & B (EN)<br>25 copies of Mapping and Workbook (EN) |
| 8/29/79     | East-West Center<br>to Mike Levin<br>(25 for use in the Census<br>Editing Group Workshop) | 50 copies of POPSTAN -- Parts A & B (EN)   |
| 8/21/79     | MAURITIUS POPSTAN WORKSHOP<br>for use at the workshop                                     | 25 copies of POPSTAN -- Parts A & B (EN)<br>25 copies of Mapping and Workbook (EN) |
| 11/20/79    | UN -- Natalie Robinson<br>for internal use  | 25 copies of Mapping and Workbook (EN)   |

|         |   |   |
|---------|---|---|
| 6/12/80 | UN -- Natalie Robinson  | 25 copies Mapping and Workbook (SP)   |
| 2/23/81 | UN -- Natalie Robinson<br>for internal use                                    | 25 copies Mapping and Workbook (FR)   |
| 3/3/81  | GABON MAPPING WORKSHOP<br>for use at the workshop                             | 25 copies of Mapping and Workbook (FR)  |
| 3/10/81 | TUNISIA POPSTAN WORKSHOP<br>for use at the workshop                           | 30 copies of POPSTAN -- Part A (FR)<br>30 copies of Mapping and Workbook (FR)                           |
| 5/5/81  | EGYPT POPSTAN WORKSHOP<br>for use at the workshop                             | 30 copies of POPSTAN -- Parts A, B,<br>C, D, E, F, and G (EN)<br>30 copies of Mapping and Workbook (EN) |
| 5/12/81 | AID Section - Am/Embassy/Quito<br>sent to Mr. Vincent Cusumano                | 25 copies of POPSTAN -- Parts A & B (EN)  |
| 7/13/81 | Central Statistical Office<br>Addis Ababa, Ethiopia<br>sent to Badulabi Hasen | 5 sets of POPSTAN -- Parts A-G (EN)<br>5 sets of Mapping and Workbook (EN)                              |
| 9/15/81 | Luis E. Miranda Villasenor<br>Mexico City, Mexico                             | 2 set of POPSTAN -- Parts A & B (SP)<br>10 sets of Mapping and Workbook (SP)                            |
| 9/15/81 | Am/Embassy/Bujumbura<br>for Mr. Felicien Nkuzimana                            | 6 copies of Mapping and Workbook (FR)   |
| 2/2/82  | USAID/Manila<br>for the use of Nella R.<br>Marquez                            | 2 copies of POPSTAN -- Parts A-G (EN)   |
| 3/22/82 | Oscar Sandoval Torres<br>San Jose, Costa Rica                                 | 10 copies Mapping and Workbook (SP)   |
| 5/25/82 | PANAMA<br>for use in the Household<br>Surveys Workshop                        | 16 copies of POPSTAN --<br>Parts A, B, and C (SP)   |
| 6/18/82 | SIERRA LEONE POPSTAN WORKSHOP<br>for use in the workshop                      | 25 copies of POPSTAN -- Parts A-G (EN)<br>5 copies of Mapping and Workbook (EN)                         |
| 6/23/82 | Emory Phlegar, Chief, IAGS<br>Fort Clayton, Panama                            | 20 copies of Mapping and Workbook (SP)  |

Totals of Pages 1 and 2:

|                               |            |    |     |
|-------------------------------|------------|----|-----|
| MAPPING MANUALS and Workbooks | -- English | -- | 395 |
|                               | Spanish    | -- | 65  |
|                               | French     | -- | 86  |

|                  |   | English | Spanish | French |
|------------------|---|---------|---------|--------|
| POPSTAN -- Parts | A | 197     | 43      | 30     |
|                  | B | 197     | 43      |        |
|                  | C | 62      | 16      |        |
|                  | D | 62      |         |        |
|                  | E | 62      |         |        |
|                  | F | 62      |         |        |
|                  | G | 62      |         |        |

SUMMARY OF THE TWO PROCEEDING PAGES

APPENDIX E. Details on Workshop Assistance and Training Provided

Table E.1 WORKSHOPS: NUMBER OF PARTICIPANTS CLASSIFIED BY COUNTRY, TYPE AND SPONSOR FY 1978 - FY 1982

8/30/82

|                               | FISCAL YEAR 78 |         | FISCAL YEAR 79 |         |            |         |          |                 |            |          |
|-------------------------------|----------------|---------|----------------|---------|------------|---------|----------|-----------------|------------|----------|
|                               | POPSTAN        | UN      | POPSTAN        | MAPPING | E-W CENTER |         |          | UN              | ECCM       | SIAP     |
|                               |                | POPSTAN |                |         | MAPPING    | EDITING | ANALYSIS | QUALITY CONTROL | POPULATION | TRAINING |
| AFGHANISTAN.....              |                |         |                |         |            | 1       |          |                 |            |          |
| AMERICAN SAMOA.....           |                |         |                |         |            |         |          |                 |            |          |
| ANTIGUA.....                  |                |         |                |         |            |         |          | 4               |            |          |
| ARGENTINA.....                | 2              |         |                |         |            |         | 1        |                 |            |          |
| BAHAMAS.....                  |                |         |                |         |            |         |          | 1               |            |          |
| BANGLADESH.....               |                |         |                | 1       | 1          | 2       | 1        |                 |            | 2        |
| BARBADOS.....                 |                |         | 5              |         |            |         |          | 1               |            |          |
| BELIZE.....                   |                |         | 2              |         |            |         |          | 1               |            |          |
| BENIN.....                    |                |         |                |         |            |         |          |                 |            |          |
| BERMUDA.....                  |                |         |                |         |            |         |          | 1               |            |          |
| BOLIVIA.....                  |                |         |                |         |            |         | 1        |                 |            |          |
| BOTSWANA.....                 |                |         | 1              |         |            |         |          |                 |            |          |
| BRAZIL.....                   |                |         |                |         |            |         | 1        |                 |            |          |
| BRITISH VIRGIN ISLANDS.....   |                |         |                |         |            |         |          | 2               |            |          |
| BRUNEI.....                   |                |         |                |         |            |         |          |                 |            | 1        |
| BURMA.....                    |                |         |                |         |            |         |          |                 |            | 3        |
| BURUNDI.....                  |                |         |                |         |            |         |          |                 |            |          |
| CAMEROON.....                 |                |         |                |         |            |         |          |                 |            |          |
| CAROLINE ISLANDS.....         |                |         |                |         |            |         |          |                 |            | 1        |
| CENTRAL AFRICAN REPUBLIC..... |                |         |                |         |            |         |          |                 |            |          |

1-3

4

Bureau part

Assess  
part 1

FISCAL YEAR 78

FISCAL YEAR 79

1-2

|                         | FISCAL YEAR 78 |            | FISCAL YEAR 79 |         |            |         |          |                 |            |          |
|-------------------------|----------------|------------|----------------|---------|------------|---------|----------|-----------------|------------|----------|
|                         | POPSTAN        | UN POPSTAN | POPSTAN        | MAPPING | E-W CENTER |         |          | UN              | ECCM       | SIAP     |
|                         |                |            |                |         | MAPPING    | EDITING | ANALYSIS | QUALITY CONTROL | POPULATION | TRAINING |
| CHAD.....               |                |            |                |         |            |         |          |                 |            |          |
| CHILE.....              | 4              |            |                |         |            |         |          | 1               |            |          |
| CHINA, Republic of..... |                |            |                |         | 1          |         |          |                 |            |          |
| COLOMBIA.....           | 1              |            | 2              |         |            |         |          | 1               |            |          |
| CONGO.....              |                |            |                |         |            |         |          |                 |            |          |
| COSTA RICA.....         | 2              |            | 7              |         |            |         |          | 1               |            |          |
| CUBA.....               |                |            |                |         |            |         |          | 1               |            |          |
| DOMINICA.....           |                |            | 1              |         |            |         |          |                 | 2          |          |
| DOMINICAN REPUBLIC..... |                |            |                |         |            |         |          | 2               |            |          |
| ECUADOR.....            | 5              |            | 2              |         |            |         |          | 3               |            |          |
| EGYPT.....              |                |            | 3              |         |            |         |          |                 |            |          |
| EL SALVADOR.....        | 4              |            | 2              |         |            |         |          | 1               |            |          |
| ETHIOPIA.....           |                | 1          | 1              |         |            |         |          |                 |            |          |
| FIJI.....               |                |            |                |         |            |         |          |                 |            |          |
| GABON.....              |                |            |                |         |            |         |          |                 |            |          |
| GHANA.....              |                | 2          |                |         |            |         |          |                 |            |          |
| GRENADA.....            |                |            | 2              |         |            |         |          |                 | 2          |          |
| GUAM.....               |                |            |                |         |            | -1      |          |                 |            |          |
| GUATEMALA.....          | 1              |            | 1              |         |            |         |          | 1               |            |          |
| GUI NEA.....            |                |            |                |         |            |         |          |                 |            |          |
| GUYANA.....             |                |            | 1              |         |            |         |          |                 |            |          |

FISCAL YEAR 78

FISCAL YEAR 79

HAITI.....  
 HONDURAS.....  
 HONG KONG.....  
  
 INDIA.....  
 INDONESIA.....  
 IRAN.....  
  
 JAMACIA.....  
 JAPAN.....  
 JORDAN.....  
  
 KENYA.....  
 KOREA.....  
  
 LIBERIA.....  
  
 MADAGASCAR.....  
 MALAYSIA.....  
 MALDIVES.....  
 MALI.....  
 MAURITANIA.....  
 MAURITIUS.....  
 MEXICO.....

| POPSTAN | UN      | POPSTAN | HAPPING | E-W CENTER |         |          | UN              | ECCM       | SIAP     |
|---------|---------|---------|---------|------------|---------|----------|-----------------|------------|----------|
|         | POPSTAN |         |         | HAPPING    | EDITING | ANALYSIS | QUALITY CONTROL | POPULATION | TRAINING |
|         |         |         |         |            |         |          | 1               |            |          |
| 3       |         | 1       |         |            |         |          | 1               |            |          |
|         |         |         |         |            | 1       |          |                 |            |          |
|         |         |         | 2       |            | 2       | 2        |                 |            | 1        |
|         |         |         | 12      | 1          | 1       | 2        |                 |            |          |
|         |         |         |         | 1          |         |          |                 |            |          |
|         |         |         |         |            |         |          |                 | 1          |          |
|         |         |         |         |            | 1       |          |                 |            |          |
|         |         |         | 1       |            |         |          |                 |            |          |
|         |         |         |         | 1          | 2       | 1        |                 |            | 1        |
|         |         | 3       | 2       |            |         |          |                 |            |          |
|         |         |         |         |            |         |          |                 |            |          |
|         |         |         |         | 1          | 2       |          |                 |            |          |
|         |         |         |         |            |         |          |                 |            | 1        |
|         |         |         |         |            |         |          |                 |            |          |
|         | 1       | 8       |         |            |         |          |                 |            |          |
|         |         | 1       |         |            |         |          | 3               |            |          |

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| FISCAL YEAR 78        |         |         | FISCAL YEAR 79 |         |            |         |          |                 |            |          |
|-----------------------|---------|---------|----------------|---------|------------|---------|----------|-----------------|------------|----------|
| POPSTAN               | UN      | POPSTAN | POPSTAN        | MAPPING | E-W CENTER |         |          | UN              | ECCH       | SIAP     |
|                       | POPSTAN |         |                |         | MAPPING    | EDITING | ANALYSIS | QUALITY CONTROL | POPULATION | TRAINING |
| MONTERRAT.....        |         |         | 2              |         |            |         |          |                 | 2          |          |
| MOROCCO.....          |         |         |                |         |            |         |          |                 |            |          |
| NAMIBIA.....          |         |         |                |         |            |         |          |                 |            |          |
| NEPAL.....            |         |         |                | 1       |            | 2       |          |                 |            | 2        |
| NEW ZEALAND.....      |         |         |                |         |            | 2       |          |                 |            |          |
| NICARAGUA.....        | 1       |         |                |         |            |         |          | 1               |            |          |
| NIGER.....            |         |         |                |         |            |         |          |                 |            |          |
| NIGERIA.....          |         | 1       |                |         |            |         |          |                 |            |          |
| PAKISTAN.....         |         |         |                |         | 1          | 2       |          |                 |            |          |
| PANAMA.....           | 2       |         | 1              |         |            |         |          | 1               |            |          |
| PAPUA-NEW GUINEA..... |         |         |                |         | 1          |         | 1        |                 |            |          |
| PARAGUAY.....         | 2       |         | 1              |         |            |         |          | 1               |            |          |
| PERU.....             | 1       |         |                |         |            |         |          | 8               |            |          |
| PHILIPPINES.....      |         |         |                | 1       | 1          | 2       |          |                 |            | 3        |
| RWANDA.....           |         |         |                |         |            |         |          |                 |            |          |
| SAIPAN.....           |         |         |                |         |            |         | 1        |                 |            | 1        |
| SENEGAL.....          |         |         |                |         |            |         |          |                 |            |          |
| SIERRA LEONE.....     |         |         |                |         |            |         |          |                 |            |          |
| SINGAPORE.....        |         |         |                |         | 1          | 2       |          |                 |            |          |
| SOMALIA.....          |         | 1       | 2              | 3       |            |         |          |                 |            |          |

4-3

FISCAL YEAR 78

FISCAL YEAR 79

ST. KITTS-NEVIS-  
ANGUILLA.....  
ST. LUCIA.....  
ST. VINCENT.....  
SRI LANKA.....  
SUDAN.....  
  
TAIWAN.....  
TANZANIA.....  
THAILAND.....  
TOGO.....  
TRINIDAD-TOBAGO.....  
TRUST TERRITORIES  
OF THE PACIFIC.....  
TUNISIA.....  
TURKS & CAICOS.....  
  
UGANDA.....  
UNITED ARAB  
REPUBLIC.....  
UNITED STATES.....  
UPPER VOLTA.....  
URUGUAY.....  
  
VENEZUELA.....

| FISCAL YEAR 78 |         | FISCAL YEAR 79 |         |            |         |          |                 |            |          |
|----------------|---------|----------------|---------|------------|---------|----------|-----------------|------------|----------|
| POPSTAN        | UN      | POPSTAN        | MAPPING | E-W CENTER |         |          | UN              | ECCH       | SIAP     |
|                | POPSTAN |                |         | MAPPING    | EDITING | ANALYSIS | QUALITY CONTROL | POPULATION | TRAINING |
|                |         | 2              |         |            |         |          |                 | 2          |          |
|                |         | 1              |         |            |         |          |                 | 2          |          |
|                |         |                | 2       | 1          | 2       |          |                 |            | 1        |
|                |         | 2              | 11      |            |         |          |                 |            |          |
|                |         |                |         |            | 1       | 1        |                 |            |          |
|                |         |                |         | 1          | 1       | 1        |                 |            | 1        |
|                |         | 2              |         |            |         |          |                 | 1          |          |
|                |         |                |         |            | 1       |          |                 |            |          |
|                |         | 1              |         |            |         |          |                 | 2          |          |
|                | 2       |                |         |            |         |          |                 |            |          |
|                |         | 1              |         |            |         |          |                 |            |          |
|                |         |                |         | 1          |         |          |                 |            |          |
|                |         |                |         |            |         |          |                 |            |          |
|                |         |                |         |            |         |          |                 |            |          |
| 5              |         | 3              |         |            |         |          | 2               |            |          |

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| FISCAL YEAR 78                  |           | FISCAL YEAR 79 |           |            |           |           |                 |            |           |           |
|---------------------------------|-----------|----------------|-----------|------------|-----------|-----------|-----------------|------------|-----------|-----------|
| POPSTAN                         | UN        | POPSTAN        | MAPPING   | E-W CENTER |           |           | UN              | ECCM       | SIAP      |           |
|                                 | POPSTAN   |                |           | MAPPING    | EDITING   | ANALYSIS  | QUALITY CONTROL | POPULATION | TRAINING  |           |
| ZAIRE.....                      |           |                |           |            |           |           |                 |            |           |           |
| ZAMBIA.....                     | 1         |                |           |            |           |           |                 |            |           |           |
| ZIMBABWE.....                   |           |                |           |            |           |           |                 |            |           |           |
| <b>TOTALS</b><br>(by workshops) | <b>33</b> | <b>9</b>       | <b>62</b> | <b>36</b>  | <b>13</b> | <b>28</b> | <b>10</b>       | <b>32</b>  | <b>26</b> | <b>18</b> |

7-3

df

|                               | FISCAL YEAR 80 |         |            |            |                        | FISCAL YEAR 81 |         | FISCAL YEAR 82 |                   | F 778-80<br>ax:1<br>TOTAL PA.1<br>(BY COUNTRY) 80 |
|-------------------------------|----------------|---------|------------|------------|------------------------|----------------|---------|----------------|-------------------|---|
|                               | POPSTAN        | MAPPING | E-W CENTER |            | UN.                    | POPSTAN        | MAPPING | POPSTAN        | CENSUS EVALUATION |   |
|                               |                |         | EDITING    | EVALUATION | POPULATION/<br>HOUSING |                |         |                |                   |   |
| AFGHANISTAN.....              |                |         |            |            |                        |                |         |                |                   | 1   |
| AMERICAN SAMOA.....           |                |         | 1          |            |                        |                |         |                |                   | 1   |
| ANTIGUA.....                  |                |         |            |            |                        |                |         |                |                   | 4   |
| ARGENTINA.....                |                |         |            |            |                        |                |         |                |                   | 3   |
| BAHAMAS.....                  |                |         |            |            |                        |                |         |                |                   | 1   |
| BAHAMAS.....                  |                |         |            |            |                        | 1              |         |                |                   | 11  |
| BANGLADESH.....               | 2              |         | 1          |            |                        |                |         |                |                   | 6   |
| BARBADOS.....                 |                |         |            |            |                        |                |         |                |                   | 3   |
| BELIZE.....                   |                |         |            |            |                        |                |         |                |                   | 4   |
| BENIN.....                    | 2              | 2       |            |            |                        |                |         |                |                   | 1   |
| BERMUDA.....                  |                |         |            |            |                        |                |         |                |                   | 1   |
| BOLIVIA.....                  |                |         |            |            |                        |                |         |                |                   | 5   |
| BOTSWANA.....                 | 2              |         |            |            | 2                      |                |         |                |                   | 1   |
| BRAZIL.....                   |                |         |            |            |                        |                |         |                |                   | 2   |
| BRITISH VIRGIN ISLANDS.....   |                |         |            |            |                        |                |         |                |                   | 1   |
| BRUNEI.....                   |                |         |            |            |                        |                |         |                |                   | 3   |
| BURMA.....                    |                |         |            |            |                        |                |         |                |                   | 1   |
| BURUNDI.....                  |                |         |            |            |                        |                | 1       |                |                   | 1   |
| CAMEROON.....                 | 8              | 2       |            |            |                        |                |         |                |                   | 10  |
| CAROLINE ISLANDS.....         |                |         |            |            |                        |                |         |                |                   | 1   |
| CENTRAL AFRICAN REPUBLIC..... |                |         |            |            |                        |                | 2       |                |                   | 2   |

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|                         | FISCAL YEAR 80 |         |            |            |                        | FISCAL YEAR 81 |         | FISCAL YEAR 82 |                      | TOTAL<br>(BY COUNTRY) |
|-------------------------|----------------|---------|------------|------------|------------------------|----------------|---------|----------------|----------------------|-----------------------|
|                         | POPSTAN        | MAPPING | E-W CENTER |            | UN                     | POPSTAN        | MAPPING | POPSTAN        | CENSUS<br>EVALUATION |                       |
|                         |                |         | EDITING    | EVALUATION | POPULATION/<br>HOUSING |                |         |                |                      |                       |
| CHAD.....               | 1              | 1       |            |            |                        |                |         |                |                      | 2                     |
| CHILE.....              | 1              |         |            |            |                        |                |         |                |                      | 6                     |
| CHINA, Republic of..... |                |         |            |            |                        |                |         |                |                      | 1                     |
| COLOMBIA.....           | 1              | 1       |            |            |                        |                |         |                |                      | 6                     |
| CONGO.....              | 1              |         |            |            |                        |                |         |                |                      | 1                     |
| COSTA RICA.....         |                |         |            |            |                        |                |         |                |                      | 10                    |
| CUBA.....               |                | 1       |            |            |                        |                |         |                |                      | 2                     |
| DOMINICA.....           |                |         |            |            |                        |                |         |                |                      | 3                     |
| DOMINICAN REPUBLIC..... | 1              | 1       |            |            |                        |                |         |                |                      | 4                     |
| ECUADOR.....            | 2              | 1       |            |            |                        |                |         |                |                      | 13                    |
| EGYPT.....              | 2              |         |            |            |                        | 4              |         |                |                      | 9                     |
| EL SALVADOR.....        | 2              | 2       |            |            |                        |                |         |                |                      | 11                    |
| ETHIOPIA.....           |                |         |            |            |                        | 3              |         |                |                      | 5                     |
| FIJI.....               |                |         | 1          | 1          |                        |                |         |                |                      | 2                     |
| GABON.....              | 3              |         |            |            |                        |                | 12      |                |                      | 15                    |
| GHANA.....              |                |         |            |            |                        |                |         |                |                      | 2                     |
| GRENADA.....            |                |         |            |            |                        |                |         |                |                      | 4                     |
| GUAM.....               |                |         |            |            |                        |                |         |                |                      | 1                     |
| GUATEMALA.....          | 2              | 2       |            |            |                        |                |         |                |                      | 7                     |
| GUINEA.....             | 3              |         |            |            |                        |                |         |                |                      | 3                     |

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|                 | FISCAL YEAR 80 |         |            |            | FISCAL YEAR 81               |         | FISCAL YEAR 82 |         | TOTAL<br>(BY COUNTRY) |                      |
|-----------------|----------------|---------|------------|------------|------------------------------|---------|----------------|---------|-----------------------|----------------------|
|                 | POPSTAN        | MAPPING | E-W CENTER |            | UN<br>POPULATION/<br>HOUSING | POPSTAN | MAPPING        | POPSTAN |                       | CENSUS<br>EVALUATION |
|                 |                |         | EDITING    | EVALUATION |                              |         |                |         |                       |                      |
| GUYANA.....     |                |         |            |            |                              |         |                |         | 1                     |                      |
| HAITI.....      | 2              |         |            |            |                              |         |                |         | 3                     |                      |
| HONDURAS.....   | 1              | 2       |            |            |                              |         |                |         | 8                     |                      |
| HONG KONG.....  |                |         | 1          |            |                              |         |                |         | 2                     |                      |
| INDIA.....      | 2              |         | 1          | 2          |                              |         |                |         | 12                    |                      |
| INDONESIA.....  |                |         | 1          |            |                              |         |                |         | 17                    |                      |
| IRAN.....       |                |         | 1          |            |                              |         |                |         | 2                     |                      |
| JAMACIA.....    |                |         |            |            |                              |         |                |         | 1                     |                      |
| JAPAN.....      |                |         | 1          |            |                              |         |                |         | 2                     |                      |
| JORDON.....     |                |         |            |            |                              |         |                |         | :                     |                      |
| KENYA.....      |                |         |            |            | 1                            |         |                |         | 2                     |                      |
| KOREA.....      |                |         | 1          | 2          |                              |         |                |         | 8                     |                      |
| LIBERIA.....    | 3              |         |            |            |                              | 2       |                |         | 10                    |                      |
| MADAGASCAR..... |                | 1       |            |            |                              | 2       |                |         | 3                     |                      |
| MALAYSIA.....   |                |         |            |            |                              |         |                |         | 3                     |                      |
| MALDIVES.....   |                |         |            |            |                              |         |                |         | 1                     |                      |
| MALI.....       | 3              | 2       |            |            |                              | 2       | 3              |         | 10                    |                      |
| MAURITANIA..... | 1              | 2       |            |            |                              |         | 1              |         | 4                     |                      |

6-3

|                       | FISCAL YEAR 80 |         |            |            |                        | FISCAL YEAR 81 |         | FISCAL YEAR 82 |                      | TOTAL<br>(BY COUNTRY) |
|-----------------------|----------------|---------|------------|------------|------------------------|----------------|---------|----------------|----------------------|-----------------------|
|                       | POPSTAN        | MAPPING | E-W CENTER |            | UN                     | POPSTAN        | MAPPING | POPSTAN        | CENSUS<br>EVALUATION |                       |
|                       |                |         | EDITING    | EVALUATION | POPULATION/<br>HOUSING |                |         |                |                      |                       |
| MAURITIUS.....        |                |         |            |            |                        | 1              |         |                |                      | 10                    |
| MEXICO.....           |                |         |            |            |                        |                |         |                |                      | 4                     |
| MONTSERRAT.....       |                |         |            |            |                        |                |         |                |                      | 4                     |
| MOROCCO.....          | 1              |         |            |            |                        |                |         |                |                      | 1                     |
| NAHIBIA.....          |                |         |            |            | 1                      |                |         |                |                      | 1                     |
| NEPAL.....            | 1              |         | 1          |            |                        |                |         |                |                      | 7                     |
| NEW ZEALAND.....      |                |         | 1          |            |                        |                |         |                |                      | 3                     |
| NICARAGUA.....        |                | 3       |            |            |                        |                |         |                |                      | 5                     |
| NIGER.....            | 3              | 2       |            |            |                        |                | 1       |                |                      | 6                     |
| NIGERIA.....          | 1              |         |            |            |                        |                |         |                |                      | 2                     |
| PAKISTAN.....         |                |         | 1          | 2          |                        |                |         |                |                      | 6                     |
| PANAMA.....           |                | 10      |            |            |                        |                |         |                |                      | 14                    |
| PAPUA-NEW GUINEA..... |                |         | 1          |            |                        |                |         |                |                      | 3                     |
| PARAGUAY.....         | 7              | 1       |            |            |                        |                |         |                |                      | 12                    |
| PERU.....             | 2              | 4       |            |            |                        |                |         |                |                      | 15                    |
| PHILIPPINES.....      | 2              |         | 1          | 1          |                        |                |         |                |                      | 11                    |
| RWANDA.....           | 1              |         |            |            |                        |                |         |                |                      | 1                     |
| SAIPAN.....           |                |         |            |            |                        |                |         |                |                      | 2                     |
| SENEGAL.....          | 2              | 7       |            |            |                        | 2              | 1       |                |                      | 12                    |
| SIERRA LEONE.....     | 2              |         |            |            |                        | 1              |         | ( 26 )         |                      | 3                     |

010

|  | FISCAL YEAR 80 |         |            |            | FISCAL YEAR 81               |         | FISCAL YEAR 82 |         | TOTAL<br>(BY COUNTRY) |                      |
|--|----------------|---------|------------|------------|------------------------------|---------|----------------|---------|-----------------------|----------------------|
|  | POPSTAN        | MAPPING | E-W CENTER |            | UN<br>POPULATION/<br>HOUSING | POPSTAN | MAPPING        | POPSTAN |                       | CENSUS<br>EVALUATION |
|  |                |         | EDITING    | EVALUATION |                              |         |                |         |                       |                      |
| SINGAPORE.....                           |                |         | 1          |            |                              |         |                |         | 4                     |                      |
| SOHALLIA.....                            | 2              |         |            |            |                              | 2       |                |         | 10                    |                      |
| ST. KITTS-NEVIS-<br>ANGUILLA.....        |                |         |            |            |                              |         |                |         | 4                     |                      |
| ST. LUCIA.....                           |                |         |            |            |                              |         |                |         | 2                     |                      |
| ST. VINCENT.....                         |                |         |            |            |                              |         |                |         | 3                     |                      |
| SRI LANKA.....                           | 11             |         | 1          | 1          |                              |         |                |         | 19                    |                      |
| SUDAN.....                               | 6              |         |            |            |                              | 2       |                |         | 21                    |                      |
| TAIWAN.....                              |                |         |            | 1          |                              |         |                |         | 3                     |                      |
| TANZANIA.....                            |                |         |            |            | 1                            |         |                |         | 1                     |                      |
| THAILAND.....                            |                |         |            |            |                              |         |                |         | 4                     |                      |
| TOGO.....                                | 2              | 2       |            |            |                              | 1       |                |         | 5                     |                      |
| TRINIDAD-TOBAGO.....                     |                |         | 1          |            |                              |         |                |         | 4                     |                      |
| TRUST TERRITORIES<br>OF THE PACIFIC..... |                |         |            | 1          |                              |         |                |         | 2                     |                      |
| TUNISIA.....                             | 2              | 2       |            |            |                              | 6       |                |         | 10                    |                      |
| TURKS & CAICOS.....                      |                |         |            |            |                              |         |                |         | 3                     |                      |
| UGANDA.....                              | 2              |         |            |            | 2                            | 1       |                |         | 7                     |                      |
| UNITED ARAB<br>REPUBLIC.....             |                |         |            |            |                              |         |                |         | 1                     |                      |
| UNITED STATES.....                       |                |         |            | 1          |                              |         |                |         | 2                     |                      |
| URUGUAY.....                             | 1              |         |            |            |                              |         |                |         | 1                     |                      |

11-3

|                       | FISCAL YEAR 80 |         |            |            |                        | FISCAL YEAR 81 |         | FISCAL YEAR 82 |                      | TOTAL<br>(BY COUNTRY) |
|-----------------------|----------------|---------|------------|------------|------------------------|----------------|---------|----------------|----------------------|-----------------------|
|                       | POPSTAN        | MAPPING | E-W CENTER |            | UN                     | POPSTAN        | MAPPING | POPSTAN        | CENSUS<br>EVALUATION |                       |
|                       |                |         | EDITING    | EVALUATION | POPULATION/<br>HOUSING |                |         |                |                      |                       |
| VENEZUELA.....        | 25 *           |         |            |            |                        |                |         |                |                      | 35                    |
| ZAIRE.....            | 1              | 2       |            |            |                        |                | 1       |                |                      | 4                     |
| ZAMBIA.....           |                |         |            |            | 4                      |                |         |                |                      | 5                     |
| ZIMBABWE.....         |                |         |            |            |                        | 3              |         |                |                      | 3                     |
| TOTALS (BY WORKSHOPS) | 123            | 56      | 17         | 12         | 11                     | 35             | 24      |                |                      |                       |

\* CSM provided 1 instructor and materials for an in-country Venezuela workshop.  
The Venezuelan Government paid for the rest of the workshop.

E-12

PARTICIPANTS

|       | <u>Total</u> | <u>Paid for<br/>Out of<br/>RSSA Funds</u> |
|-------|--------------|---|
| FY 78 | 42           | -   |
| FY 79 | 225          | 47  |
| FY 80 | 219          | 87  |
| FY 81 | 59           | 33  |
| FY 82 |              |   |

CENTRAL FUNDED PARTICIPANTS BY WORKSHOP AND BY FISCAL YEAR

|                 |    |                 |    |              |    |                    |  |
|-----------------|----|-----------------|----|--------------|----|--------------------|--|
| FY 79: Barbados | 15 | FY 80: Cameroon | 21 | FY 81: Egypt | 13 | FY 82: Philippines |  |
| Costa Rica      | 8  | Kenya           | 17 | Gabon        | 11 |                    |  |
| Indonesia       | 7  | Panama          | 10 | Tunisia      | 9  |                    |  |
| Mauritius       | 12 | Paraguay        | 11 |              | 33 |                    |  |
| Sudan           | 5  | Senegal         | 19 |              |    |                    |  |
|                 | 47 | Sri Lanka       | 9  |              |    |                    |  |
|                 |    |                 | 87 |              |    |                    |  |

APPENDIX E (Continued)

Table E.2 TRAINING AND TECHNICAL ASSISTANCE PROVIDED BY THE  
1980 ROUND OF CENSUSES PROJECT 1978-1982

Region

AFRICA

| <u>Country</u>    | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u>         |
|-------------------|-----------------------|-----------------|-----------------------------|-------------------------------|-----------------|---------------------|
| <u>Botswana</u>   | 1981                  | Popstan         |                             | 1                             | BuCen           | 1979                |
|                   |                       | Popstan         |                             | 2                             | BuCen           | 1980                |
|                   |                       | CONCOR          |                             | 1                             | NTS             | 1982                |
| <u>Burundi</u>    | 1979                  | Mapping         |                             | 1                             | BuCen           | 1981                |
| <u>Cameroon</u>   | 1976                  | Popstan         |                             | 8                             | BuCent          | 1980 <sup>1/2</sup> |
|                   |                       | Mapping         |                             | 2                             | BuCen           | 1980                |
| <u>Ethiopia</u>   | 1982/83               | Popstan         |                             | 1                             | BuCen           | 1979                |
|                   |                       | Popstan         |                             | 3                             | BuCen           | 1981                |
|                   |                       | CONCOR          |                             | 1                             | NTS             | 1982                |
| <u>Gabon</u>      | 1980                  | Popstan         |                             | 3                             | BuCen           | 1980 <sup>?</sup>   |
|                   |                       | Mapping         |                             | 12                            | BuCen           | 1981                |
| <u>Kenya</u>      | 1979                  | Popstan         |                             | 1                             | BuCen           | 1979 <sup>?</sup>   |
|                   |                       | CONCOR          |                             | 2                             | NTS             | 1982                |
| <u>Lesotho</u>    | 1976                  | CONCOR          |                             | 1                             | NTS             | 1982                |
| <u>Liberia</u>    | 1984                  | Popstan         |                             | 3                             | BuCen           | 1979                |
|                   |                       | Mapping         |                             | 2                             | BuCen           | 1979                |
|                   |                       | Popstan         |                             | 3                             | BuCen           | 1980                |
|                   |                       | Popstan         |                             | 2                             | BuCen           | 1980                |
|                   |                       | CONCOR          |                             | 1                             | NTS             | 1982                |
| <u>Malawi</u>     | 1974/75<br>1984/85    | CONCOR          |                             | 1                             | NTS             | 1982                |
| <u>Mali</u>       |                       |                 | hardware inventory          |                               | Delta           | 1979                |
|                   |                       | Popstan         |                             | 3                             | BuCen           | 1980                |
|                   |                       | Mapping         |                             | 2                             | BuCen           | 1980                |
|                   |                       | Popstan         |                             | 2                             | BuCen           | 1981                |
|                   |                       | Mapping         |                             | 3                             | BuCen           | 1981                |
| <u>Mauritania</u> | 1976/86               | Popstan         |                             | 1                             | BuCen           | 1980 <sup>?</sup>   |
|                   |                       | Mapping         |                             | 2                             | BuCen           | 1980 <sup>?</sup>   |
|                   |                       | Mapping         |                             | 1                             | BuCen           | 1980 <sup>?</sup>   |

Region

AFRICA

| <u>Country</u>      | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u> |
|---------------------|-----------------------|-----------------|-----------------------------|-------------------------------|-----------------|-------------|
| <u>Niger</u>        |                       |                 | hardware inventory          |                               | Delta           | 1979        |
|                     | 1977/87               | Popstan Mapping |                             | (3)                           | BuCen           | 1980        |
|                     |                       | Mapping         |                             | (2)                           | BuCen           | 1980        |
|                     |                       |                 |                             | (1)                           | BuCen           | 1981        |
| <u>Nigeria</u>      | <del>1973</del>       | Popstan         |                             | (1)                           | BuCen           | 1980        |
| <u>Rwanda</u>       | 1978                  | Popstan         | COCENTS                     | (1)                           | BuCen           | 1980        |
|                     |                       |                 |                             |                               | Delta           | 1980        |
| <u>Senegal</u>      | 1986<br>(1974)        | Popstan Mapping |                             | (2)                           | BuCen           | 1980        |
|                     |                       | Popstan Mapping |                             | (2)                           | BuCen           | 1981        |
|                     |                       |                 | hardware inventory          | (1)                           | BuCen           | 1981        |
|                     |                       |                 |                             |                               | Delta           | 1979        |
| <u>Sierra Leone</u> | (1984-85)             | Popstan         |                             | (2)                           | BuCen           | 1980        |
|                     |                       | Popstan         |                             | (4)                           | BuCen           | 1981        |
|                     |                       | Popstan         |                             | (1)                           | BuCen           | 1982        |
|                     |                       | Popstan         |                             | (1)                           | BuCen           | 1982        |
| <u>Somalia</u>      | 1984                  |                 | hardware assessment         |                               | Delta           | 1979        |
|                     |                       | Popstan Mapping |                             | (2)                           | BuCen           | 1979        |
|                     |                       | Popstan         |                             | (3)                           | BuCen           | 1979        |
|                     |                       | Popstan         |                             | (2)                           | BuCen           | 1980        |
|                     |                       | Popstan         |                             | (2)                           | BuCen           | 1981        |
| <u>Sudan</u>        | 1982                  | Popstan Mapping |                             | (2)                           | BuCen           | 1979        |
|                     |                       | Popstan         |                             | (11)                          | BuCen           | 1979        |
|                     |                       | Popstan         |                             | (6)                           | BuCen           | 1980        |
|                     |                       | Popstan         |                             | (2)                           | BuCen           | 1981        |
|                     |                       | CONCOR          |                             | (1)                           | NTS             | 1982        |
| <u>Tanzania</u>     | 1978                  | CONCOR          | COCENTS                     | (1)                           | NTS             | 1982        |
|                     |                       |                 |                             |                               | Delta           | 1982        |
| <u>Togo</u>         | 1981                  | Popstan Mapping |                             | (2)                           | BuCen           | 1980        |
|                     |                       | Popstan         |                             | (2)                           | BuCen           | 1980        |
|                     |                       |                 |                             | (1)                           | BuCen           | 1981        |
| <u>Uganda</u>       | 1980                  | Popstan         |                             | (2)                           | BuCen           | 1980        |
|                     |                       | Popstan         |                             | (1)                           | BuCen           | 1981        |
|                     |                       |                 | COCENTS                     |                               | Delta           | 1980        |
|                     |                       | CONCOR          |                             | (1)                           | NTS             | 1982        |

Region

AFRICA

| <u>Country</u>     | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u>      | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u> |
|--------------------|-----------------------|-----------------|----------------------------------|-------------------------------|-----------------|-------------|
| <u>Upper Volta</u> |                       |                 | hardware inventory               |                               | Delta           | 1979        |
|                    | 1985                  | Popstan Mapping |                                  | 4                             | BuCen           | 1980        |
|                    |                       | Popstan Mapping |                                  | 3                             | BuCen           | 1980        |
|                    |                       | Popstan Mapping |                                  | 2                             | BuCen           | 1981        |
|                    |                       | Popstan Mapping |                                  | 2                             | BuCen           | 1981        |
| <u>Zaire</u>       | 1983                  | Popstan Mapping |                                  | 1                             | BuCen           | 1980        |
|                    |                       | Popstan Mapping |                                  | 2                             | BuCen           | 1980        |
|                    |                       | Popstan Mapping |                                  | 1                             | BuCen           | 1981        |
| <u>Zimbabwe</u>    |                       | Popstan         | software and hardware assessment | 3                             | BuCen           | 1981        |
|                    |                       |                 |                                  |                               | Delta           | 1981        |

Region

ASIA

| <u>Country</u>     | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u> |
|--------------------|-----------------------|-----------------|-----------------------------|-------------------------------|-----------------|-------------|
| <u>Bangladesh</u>  | 1981                  | Mapping         |                             | 1                             | BuCen           | 1979 ✓      |
|                    |                       | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Analysis        |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Training        |                             | 2                             | SIAP*           | 1979        |
|                    |                       | Popstan         |                             | 2                             | BuCen           | 1980 ✓      |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | Popstan         |                             | 1                             | BuCen           | 1980 ✓      |
|                    |                       | CONCOR          |                             | 2                             | NTS             | 1981 ✓      |
| <u>Burma</u>       | 1983                  | Training        |                             | 3                             | SIAP            | 1979        |
| <u>India</u>       | 1981                  | Mapping         |                             | 2                             | BuCen           | 1979 ✓      |
|                    |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Analysis        |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Training        |                             | 1                             | SIAP            | 1979        |
|                    |                       | Popstan         |                             | 2                             | BuCen           | 1980 ✓      |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | Evaluation      |                             | 2                             | E-W Ctr.        | 1980        |
|                    |                       | CONCOR          |                             | 2                             | NTS             | 1981        |
| <u>Indonesia</u>   | 1980                  | Mapping         |                             | 12 <sup>??</sup>              | BuCen           | 1979 ✓      |
|                    |                       | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Analysis        |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
| <u>Nepal</u>       | 1981                  | Mapping         |                             | 1                             | BuCen           | 1979 ✓      |
|                    |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Training        |                             | 2                             | SIAP            | 1979        |
|                    |                       | Popstan         |                             | 1                             | BuCen           | 1980 ✓      |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | CONCOR          |                             | 1                             | NTS             | 1981        |
| <u>Pakistan</u>    | 1981                  | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | Evaluation      |                             | 2                             | E-W Ctr.        | 1980        |
| <u>Philippines</u> | 1980                  | Mapping         |                             | 1                             | BuCen           | 1979 ✓      |
|                    |                       | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |
|                    |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |
|                    |                       | Popstan         |                             | 2                             | BuCen           | 1980 ✓      |
|                    |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | Evaluating      |                             | 1                             | E-W Ctr.        | 1980        |
|                    |                       | CONCOR          |                             | 1                             | NTS             | 1981        |
| CONCOR             | CONCOR                |                 | 1.5                         | Delta                         | 1980            |             |

\* Statistics Institute for Asia and the Pacific.

Region

ASIA

| <u>Country</u>   | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u> |      |
|------------------|-----------------------|-----------------|-----------------------------|-------------------------------|-----------------|-------------|------|
| <u>Sri Lanka</u> | 1981                  | Mapping         |                             | 2                             | BuCen           | 1979        |      |
|                  |                       | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |      |
|                  |                       | Editing         |                             | 2                             | E-W Ctr.        | 1979        |      |
|                  |                       | Training        |                             | 1                             | SIAP            | 1979        |      |
|                  |                       | Popstan         |                             | 11                            | BuCen           | 1980        |      |
|                  |                       | Editing         |                             | 1                             | E-W Ctr.        | 1980        |      |
|                  |                       | Evaluation      |                             | 1                             | E-W Ctr.        | 1980        |      |
|                  |                       | Popstan         |                             | 2                             | BuCen           | 1981        |      |
|                  |                       | CONCOR          |                             | 1                             | NTS             | 1981        |      |
| <u>Thailand</u>  | 1980                  | Mapping         |                             | 1                             | E-W Ctr.        | 1979        |      |
|                  |                       | Editing         |                             | 1                             | E-W Ctr.        | 1979        |      |
|                  |                       | Analysis        |                             | 1                             | E-W Ctr.        | 1979        |      |
|                  |                       | Training        |                             | 1                             | SIAP            | 1979        |      |
|                  |                       |                 | quality control             |                               |                 | Delta       | 1979 |
|                  |                       |                 | CONCOR                      |                               |                 | Delta       | 1980 |

Region

NEAR EAST

| <u>Country</u> | <u>Date of Census</u> | <u>Workshop</u>               | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u>         | <u>Date</u>          |
|----------------|-----------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------|----------------------|
| <u>Egypt</u>   | 1976                  | Popstan<br>Popstan<br>Popstan |                             | 3<br>2<br>1                   | BuCen<br>BuCen<br>BuCen | 1979<br>1980<br>1981 |
| <u>Jordan</u>  | 1979                  | Mapping                       |                             | 1                             | BuCen                   | 1979                 |
| <u>Tunisia</u> | 1979                  | Popstan<br>Mapping            |                             | 2<br>2                        | BuCen<br>BuCen          | 1980<br>1980         |

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Region

LATIN AMERICA

| <u>Country</u>            | <u>Date of Census</u> | <u>Workshop</u> | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u> | <u>Date</u> |      |
|---------------------------|-----------------------|-----------------|-----------------------------|-------------------------------|-----------------|-------------|------|
| <u>Costa Rica</u>         | 1983                  | Popstan         |                             | 2                             | BuCen           | 1978        |      |
|                           |                       | Popstan         |                             | 7                             | BuCen           | 1979        |      |
|                           |                       | Quality Control |                             | 1                             | UN/BuCen        | 1979        |      |
| <u>Dominican Republic</u> | 1980                  |                 | computer assistance         |                               | Delta           | 1980        |      |
|                           |                       | Popstan         |                             | 1                             | BuCen           | 1980        |      |
|                           |                       | Mapping         |                             | 1                             | BuCen           | 1980        |      |
|                           |                       | Quality Control |                             | 2                             | UN/BuCen        | 1979        |      |
| <u>Ecuador</u>            | 1984                  | Popstan         |                             | 5                             | BuCen           | 1978        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1979        |      |
|                           |                       | Quality Control |                             | 3                             | UN/BuCen        | 1979        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       | Mapping         |                             | 1                             | BuCen           | 1980        |      |
| <u>El Salvador</u>        | 1980                  | Popstan         |                             | 4                             | BuCen           | 1978        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1979        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       | Mapping         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       | Quality Control |                             | 1                             | UN/BuCen        | 1979        |      |
|                           |                       | CONCOR          | CONCOR                      |                               |                 | Delta       | 1979 |
| <u>Guatemala</u>          | 1981                  | Popstan         |                             | 1                             | BuCen           | 1978        |      |
|                           |                       | Popstan         |                             | 1                             | BuCen           | 1979        |      |
|                           |                       | Quality Control |                             | 1                             | UN/BuCen        | 1979        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       | Mapping         |                             | 2                             | BuCen           | 1981        |      |
| <u>Haiti</u>              | 1981                  | Quality control |                             | 1                             | UN/BuCen        | 1979        |      |
|                           |                       | Popstan         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       |                 | CONCOR                      |                               |                 | Delta       | 1981 |
|                           |                       |                 | COCENTS                     |                               |                 | Delta       | 1982 |
| <u>Honduras</u>           | 1982                  | Popstan         |                             | 3                             | BuCen           | 1978        |      |
|                           |                       | Popstan         |                             | 1                             | BuCen           | 1979        |      |
|                           |                       | Quality Control |                             | 1                             | UN/BuCen        | 1979        |      |
|                           |                       | Popstan         |                             | 1                             | BuCen           | 1980        |      |
|                           |                       | Mapping         |                             | 2                             | BuCen           | 1980        |      |
|                           |                       |                 | COCENTS                     |                               |                 | Delta       | 1981 |
|                           | Software Assistance   |                 |                             | Delta                         | 1982            |             |      |

Region

LATIN AMERICA

| <u>Country</u>  | <u>Date of Census</u> | <u>Workshop</u>                          | <u>Technical Assistance</u> | <u>Number of Participants</u> | <u>Provider</u>                  | <u>Date</u>                  |
|-----------------|-----------------------|--|-----------------------------|-------------------------------|----------------------------------|------------------------------|
| <u>Jamaica</u>  |                       |  | data processing<br>COCENTS  |                               | Delta<br>Delta                   | 1979<br>1979                 |
| <u>Paraguay</u> | 1982                  | Popstan<br>Popstan<br>Popstan<br>Mapping |                             | 2<br>1<br>7<br>1              | BuCen<br>BuCen<br>BuCen<br>BuCen | 1978<br>1979<br>1980<br>1980 |
| <u>Peru</u>     | 1981                  | Popstan<br>Quality Control<br>CONTROL    |                             | 1<br>8                        | BuCen<br>UN/BuCen<br>Delta       | 1978<br>1979<br>1981         |

APPENDIX F  
SUPPLEMENTARY INFORMATION ON THE SIERRA LEONE WORKSHOP

INTRODUCTION

This is a comprehensive report of the political, social and economic situation in Sierra Leone as it relates to the needs for and potential effectiveness of a BUCEN country workshop at this time. Highlights of this report are excerpted in the body of the team report. The principal objectives of this report are (1) to suggest the ways in which appropriate advance planning for a country workshop can enhance the likelihood that the workshop will meet its stated objectives and (2) to provide background material for the USAID and BUCEN in the event further USAID activities are planned for Sierra Leone.

The effectiveness of a specific population-related technical assistance mission such as a Census training workshop in a developing country is at least to some extent contingent on an understanding of the local social and political situation, at least in so far as it impinges on population considerations. The Census training workshop held in Sierra Leone in July/August 1982, while in some respects highly effective, could certainly have been improved if the U.S.A.I.D. and the U.S. Bureau of the Census had had greater knowledge of the planning status for the forthcoming Sierra Leone Census, the "population politics" linked with this planning and the demographic posture of the country, as defined by the preceding 1974 Census. Included in this is of course an understanding of the weaknesses and limitations (data as well as structural problems) of the preceding Censuses. While it is not always possible to have completely adequate up-to-date knowledge about the status of a developing country's population and how it inter-relates with local political considerations, it is frequently possible

with a nominal effort at relatively modest cost to gain numerous insights (as well as much data) about the status of a country in which one plans to provide technical assistance. Country-specific knowledge is of particular importance when one plans a technical assistance mission such as a Census workshop at a country-specific level. For example, the Census workshop which was held in Sierra Leone could have benefitted greatly from an advance visit of several days by a knowledgeable individual who could have gathered an extensive body of material relating to the demographics of the country, the problems with the preceding Census and the actual and proposed plans for the forthcoming Census. All of the attached material, which can now be inputted into any future assistance plans for Sierra Leone, could have been available for the preceding workshop. This includes several summary Census volumes based on the 1974 Census, several papers which evaluated the quality of the 1974 Census, and a document which includes a tentative plan for the next Census. Perhaps most importantly, the above planning information in conjunction with insights gained on site regarding the extremely limited planning to date for the next Census might have suggested that Census technical assistance might have been more effectively utilized by the government of Sierra Leone at a later date when their planning was more advanced and their staffing for the forthcoming Census already underway. The following section describes in some detail relevant information gathered by the evaluation team member in Sierra Leone.

#### POPULATION AND POLITICS IN SIERRA LEONE:

##### RELEVANT WORKSHOP BACKGROUND MATERIAL

The first post-independence Census was held in Sierra Leone in 1963. This effort was supported extensively by the U.S. Bureau of the Census which provided a number of technical experts for lengthy time periods as well as

considerable equipment, some of which is still being used. The U.S. Census did not contribute to the subsequent 1974 Census effort. The bulk of the funding for the 1974 Census came from the United Nations. Dr. E.C. Benjamin, the current director of the Central Statistics Office, which will run the Census operation, was second in charge for the 1974 Census, so there is some continuity at least at the top level between the last and the forthcoming Census.

The pretest for the last Census was held in April 1973. Originally intended for April 1974, the Census was finally carried out in December 1974. Early head counts by detailed area and sex became available in August 1975. The total announced at that time was 2,729,479. Breakdowns by age came a little later. The "official" Census estimate, ratified by the legislature, was announced in mid-1981, fully six years after the preliminary count, and was 2,735,159--only about 7,000 different from the earlier estimate. The results had been used fairly extensively prior to the official ratification of the Census. For example, there was a conference on population and economic planning in 1980 which extensively used the 1974 Census results (report available). In addition, local area population data had been used internally within various ministries for a number of years.

#### Need for More Comprehensive Advance Planning

Considerable schizophrenia has been associated with releasing of any Census numbers in Sierra Leone. Different people provided this evaluation team member with different stories regarding what was or was not available. When Census workshop personnel attempted to obtain 1974 Census material for use in the workshop just prior to when it started, they were led to believe they weren't available. Additional probing during the evaluation team

members' visit located four official volumes of Census materials (attachments to this report) including volumes on (1) age and sex structure, (2) fertility, (3) mortality and (4) migration. Ultimately these materials were obtained both from Mr. Armand Thomas (head of the demographic unit at Fourah Bay College) and Dr. E.C. Benjamin (the head of the Central Statistics Office). Whereas Dr. Benjamin originally showed considerable reticence regarding making available Census materials or even discussing the Census, by the end of the evaluator's week in Sierra Leone he had become much more helpful. This is not unusual as developing world government officials frequently need to be approached several times before one can gain their confidence sufficiently to have a forthright conversation.

In addition, after some probing, a copy of a seminar held in 1981 which focused specifically on the uses of the 1974 Census as well as an evaluation of its weaknesses (by Dr. Benjamin) was located (copy enclosed). When the workshop personnel had inquired regarding evaluation materials they were left with the feeling that none were available. This particular document, particularly the section focusing in 1974 Census problems, would have been very useful for the workshop.

Finally, in a meeting with Dr. G.M.K. Kpedekpo, the I.L.O. demographic adviser to the Ministry of Development and Economic Planning, a copy of the (unofficial--not yet approved) Government of Sierre Leone submission to the U.N.F.P.A. requesting five year funding for the 1984 Census was obtained (report enclosed). This report, which was prepared by Dr. Benjamin, C.S.O. head, included a detailed year by year planning statement with regard to the forthcoming Census. Yet, Dr. Benjamin had indicated earlier on to the workshop team that no planning materials were available when they asked him for any available planning items they could use for the workshop. While

specifics of this plan might not have been usable in the workshop, the general format or planned structure would certainly have been of value. Also, insights gained from the plan as well as conversations with Dr. Benjamin might have indicated that a later date for the workshop was preferable.

### Population Politics

A number of reasons have been suggested regarding the delay by the Government of Sierra Leone in releasing their last Census figures and in their firming up plans for the next Census. These reasons should perhaps be treated cautiously. However, the frequency with which some of them have been suggested warrants their inclusion here:

(1) The government is interested in maximizing the total population of the country because larger population is associated with a greater probability of foreign aid. They were disappointed with the original estimate of about 2.7 million as they were expecting a larger figure. (This figure implies a growth rate of about 2 percent from the preceding Census. More recent growth rate estimates (see the enclosed summary volume of the 1974 Census) suggest a C.B.R. of 49 per thousand and C.D.R of 27 for a growth rate of about 2.2 percent. The likelihood is that this growth rate will increase precipitously in the immediate future, given the current extraordinary infant mortality estimate of about 225 per 1000 births--a figure which could come down sharply over the next few years.)

(2) Sierra Leone is currently applying to the U.N. for status as a "least developed" country. If they receive this status they are entitled to proportionately more aid. A major criteria for this determination is a country's per capita income. Thus, the government has been particularly interested in maximizing its population in order to minimize its per capital

income. This has been mentioned by more than one individual (Kpedekpo emphasized this as a reason for maximizing population size). This will probably continue to be an issue with their next Census.

(3) Sierra Leone has two dominant tribes, the Mende and the Temne, each about 30 percent of the population. It has been suggested that concern by each of these groups regarding their position of societal dominance was related to the delay in releasing the Census figures (the Mende are 30.0 percent and the Temne 30.7 percent, according to the 1974 Census). Also, it has been suggested that regional concerns regarding voting power, which is related to population numbers, also affected the Census. These two factors are undoubtedly of lesser importance than items (1) and (2).

(4) There is apparently some evidence that the number of voters in the 1976 national election, in which the population 18 and over was eligible to vote, was disproportionately large compared with the 18 and over population in the 1974 Census. This has caused some concern.

(5) Regarding publication of the 1974 Census results, there is clearly a shortage of funds both for publication and for further data processing. This is unfortunate, as these costs are in all likelihood relatively modest compared with the earlier costs of collecting and processing the data. This is perhaps an area where U.S.A.I.D. and the U.S. Government could make a meaningful contribution. As already mentioned, the only available data are the four fairly abbreviated reports prepared by a U.N. advisor (Dr. C. Okoye).

#### Status of the 1984 Census

All of the above factors in all likelihood have contributed to the delayed release of the 1974 Census results and in all likelihood will affect the next Census. In a sense, lack of strong official support for the Census

workshop program must be considered within the context of the above. It is now August 1982 and no official statement regarding the December 1984 Census is yet forthcoming. This partly reflects funding uncertainties and probably also reflects a number of the other above factors. As noted, the Government of Sierra Leone is negotiating with the U.N.F.P.A. regarding monetary and logistic support for their next Census. The major problem, apparently, is the unwillingness of the Sierra Leone Government to make a substantial financial commitment of their own. As a matter of policy, the U.N. does not want to fund the whole Census and is insisting on at least partial payment from the Sierra Leone Government.

As of this time, the Central Statistical Office is operating with minimal staff because of a severe funding constraint. The head of the field division indicated that he has not been able to run a sample survey since 1978. He has a nominal staff which is paid every month but really has nothing to do. The relative inactivity of this staff will make it even more difficult to fully operationalize for the next Census.

Also, the Government of Sierra Leone has contracted with the U.N.D.P. for a national manpower survey. Apparently at this time the government feels the manpower survey is a higher priority item than the next Census. This is particularly true given the knowledge that the manpower survey has been funded whereas funds for the next Census remain uncertain. The Central Statistical Office does not feel it can handle both of these surveys at one time. This will in all likelihood contribute to a delay in the next Census.

Given the above problems and the fact that we are already in mid-1982, several Sierra Leone officials admitted that it is unlikely that their next Census will take place before sometime in 1985. However, at the same time, it is likely that the U.N. will ultimately support the next Sierra Leone Census

effort. A U.N.F.P.A. population mission to Sierra Leone last year strongly recommended this support and it is likely that U.N. funds will ultimately be forthcoming.

### Programming Constraints

A major problem regarding processing of the 1974 Census relates to the fact that there is only one large computer in Sierra Leone. This is located in the Central Statistical Office. It is quite old and has an estimated "down time" of about 60 percent. In addition, there are only a limited number of competent programmers. The U.N. is apparently funding a new Wang computer which will be installed in order to meet the data processing needs for the forthcoming Manpower survey. This computer will then be available for the next Census. It is worth reiterating that much of this information could have been obtained several months ago, and would have been useful input into determinations regarding the substance and timing for a Census training workshop in Sierra Leone.

## EVALUATION OF THE WORKSHOP

### Regional Versus Country Workshops

Before specifically considering the Sierra Leone workshop, a few general comments are in order. Most importantly, it is emphasized that the criteria for evaluating country-specific and regional workshops may be quite different. Regional workshops include participants from a large number of frequently diverse countries. The participants are generally fairly high level bureaucrats from their country's civil service and are as likely as not to be generalists as technicians with expertise in a particular area. While

the participants may well be qualified and interested, being allowed to participate in a regional workshop may also frequently be a reward for good service.

Given the traits and range of abilities of the regional participants, a regional workshop should in all likelihood be aimed at a higher (but more general) audience and must of necessity consider demographic, social and perhaps political considerations of interest to a diverse group. To some extent, this negates the possibility for considering in any detail the specific demographic needs and/or problems of a particular country.

In contrast, participants in country workshops are much more likely to be lower level technicians from the various ministries, as these are the people who probably can be spared for extensive time periods. Also, and of more than just negligible importance, the benefits accruing to attending a country workshop (where payment is minimal and the opportunity to travel to new and exciting places is non-existent) are not of a magnitude sufficient to attract any but the most dedicated senior official. Also, it must be emphasized that it is extremely difficult to get senior and junior people from the same ministry to attend the same workshop. Once junior people are accepted into a workshop, only the least status-conscious of the senior staff (a rarity!) would be willing to participate in the same workshop.

In terms of substance, given the different audiences, regional and country workshops should have considerably different focuses. The technicians and field staff who are more likely to attend a country workshop can gain much more from detailed instruction focusing as much as possible on specific data collection, tabulation and analysis issues related to their own country. Where regional workshops must, for example, of necessity frequently deal with demographic issues in a general manner, country workshops should to the

maximum extent feasible concentrate on the specifics of the particular country. While it is acknowledged that sometimes individuals from a specific country may be sensitive to criticisms relating to the data system of their own country, this issue can be relatively easily diffused with sensitive competent trainers (and the Census instructors witnessed in Sierra Leone certainly fell in this category). What the above suggests is that the more country-specific knowledge which can be incorporated into a country workshop, the more likely the workshop will meet the needs of the participants.

#### General Considerations for a Country Workshop

If U.S.A.I.D. wishes to maximize the likelihood that both junior and senior officials be included in a country workshop, several alternative strategies might be considered. First, the workshop might focus on general issues of interest to senior staff during the first and last few days, and senior staff could be encouraged to attend just on these days. Second, parallel workshops could be run for at least part of the time period, with the separate sessions oriented somewhat differently towards the needs of the junior and senior officials.

In general, split workshops or else a refocussing of emphasis might be considered when it is clear that the workshop participants represent a heterogeneous group. For example, in the case of Sierra Leone, it was clear at the inception of the workshop that at best a large minority of the participants would in all likelihood be involved in the forthcoming Census exercise. However, almost all of the participants at some time or another either are or will be involved in sample survey data collection efforts. This being the case, a greater focus on sample surveys might have resulted in a more functionally useful workshop. Related to this, a greater emphasis on

field activities, considering the nuts and bolts of running a rural demographic survey would perhaps have had a greater payoff than, for example, the fairly extensive treatment of computer and programming operations. Incidentally, in general, the programming component is perhaps the most difficult to incorporate into a workshop of this type. In the case of Sierra Leone, very few workshop participants had any background in this area. Also, obviously, a few days treatment of the subject is inadequate except in so far as it leaves the average participant slightly less insecure when he or she needs to talk with programmers. In contrast, a few days on how to collect data in the field leaves a participant knowledgeable enough to make a major contribution in this area. It is this writer's view that the days spent on computer and programming orientation might be more fruitfully used in further training about data collection techniques, tabulation procedures or other phases of small or large sample survey procedures.

Virtually all of the issues raised above are consistent with the notion that more often than not, for a country-specific workshop, the returns to having an "advance person" visit the country perhaps several months prior to the planned workshop, would be considerable. Such a person could (1) gather relevant demographic materials and planning statements for the forthcoming Census (when they are not available in Washington as in the Sierra Leone situation; (2) meet with the relevant senior host country personnel so as to maximize the "spirit of cooperation" between the countries; (3) learn about what data/political problems may exist which could impede the expeditious running of the workshop (and the forthcoming Census); (4) minimize the logistics problems regarding physical facilities and supplies; and, most importantly, (5) strive to maximize the likelihood that the right people will be participating in the workshop.

In the case of Sierra Leone, an "advance person" would (1) have been able to supply the Census Bureau personnel in advance with detailed information about the demographic situation in Sierra Leone as well as information regarding the planning (or lack of planning) underway for the forthcoming Census; (2) clarified issues about where the workshop was to be held, clarified issues regarding the possibilities for transportation or per diem payments; and, most importantly, (3) increased the likelihood that the "right" people (those who anticipated being involved in the Census) were invited to the workshop. This would have included consideration of the most appropriate timing for the workshop. As of July 1982, plans for the 1984 Census were clearly tentative and many of the individuals who will be intimately involved in the 1984 Census (or perhaps 1985, if it is delayed) have not yet been selected. Indeed, the director of the Central Statistics Office indicated that he will request further training assistance once top level Census staff have been selected. In all likelihood, this will not occur for a few months. An "advance person," after discussing this issue with appropriate Sierra Leone and U.S.A.I.D. officials might well have concluded that the workshop might better accomplish its stated objectives if delayed for a few months until the Census operation was fully operative and staffed. At that time, the most appropriate individuals to be trained could have been more easily selected. This is not to suggest that those individuals who attended the workshop did not gain many useful skills. Rather, the implication is that a much better return to the U.S.A.I.D. investment might have been made if a relatively small monetary investment had been made by sending an appropriate individual several months in advance to clarify many of the above issues.

## Effectiveness of the Sierra Leone Country Workshop

The Sierra Leone workshop included 25 participants, with only five being from the Central Statistics Office (C.S.O.), the agency which will be responsible for the 1984 Census. However, this understates the actual utility of this workshop for the Census, as an additional six participants are associated with Fourah Bay College and will in all likelihood be involved in the next Census operation. Also, the likelihood is that several others will be seconded to the C.S.O. at their request as Census time draws near. Both the director of Statistics and the head of the Field Division in the C.S.O. indicated that they would strive to use non-C.S.O. personnel who attended the Census workshop in the Census Operation. When directly queried, of 23 participants who responded, 11 indicated that they will be directly involved in the Census (mostly in field operations), 6 indicated they didn't know, 3 responded that they "hoped they would be," 1 said "maybe" and only 2 said no. The affiliations of all the participants may be found in an appendix. Attendance was outstanding throughout the duration of the workshop.

While there was no clear consensus among the participants regarding which parts of the workshop were most useful, several areas were mentioned more frequently as being directly useful for their specific jobs or as providing information where they had previously had a major knowledge gap. Twelve of the workshop participants indicated that they had gained new important knowledge about how to properly design a questionnaire. Nine indicated that the information they gained about how to flowchart Census processes (such as deleting coverage errors) will stand them in good stead. Eight participants specified "data collection" in general, computer editing, "data processing" or development of tabulation plans as important areas in which they now felt more qualified. While admittedly impressionistic, the workshop evaluator was left

with the impression (from both respondents as well as instructor) that the components of the workshop which focused on data collection--questionnaire construction, actual data collection in the field, and coding--were probably the most useful for participants of this particular workshop. More extensive preparation for the field exercise and actual time in the field would have been useful.

It was clear that the class included a wide range of abilities and interests. Their educational backgrounds ranged from Form V (some secondary school) to masters degree level. Only four had any programming knowledge. This great diversity (which may turn out not to be atypical for country workshops) can pose some training problems. However, the instructors appeared to do a good job of striking a balance between the needs and capabilities of the poorer and better students. The instructors also seemed very sensitive to whether or not they were losing their audience and did a superior job in bringing technical discussions down to a level which could be understood by most of the class. They were well versed in teaching students from developing countries; they talked carefully and slowly, using easily understood terminology. They were clearly interested in and concerned about their students--and the students were sensitive to this. Class rapport was good. There were some instances, however, where instruction could have been improved by splitting the class according to either specific interests (e.g., programming, data analysis) or capability. The presence of two instructors, while also advantageous for other reasons (instructor morale, possibility for the observing instructor to provide individual assistance where a student is obviously struggling), can permit divided instruction in at least some instances--albeit this may be difficult to undertake without prior planning.

The instructors were obviously well respected both by the participants as

well as by the ministerial officials whose cooperation was essential. It is felt that at least part of this respect reflected their ties with the U.S. Census Bureau and the United States Government. The Census Bureau is well known and highly thought of by the Statistical Office personnel. As already noted, Sierra Leone's first post-independence Census was accomplished largely with the assistance of the U.S. Census Bureau, and the evaluation team member visiting Sierra Leone was frequently reminded of this in conversation. When considering other non-governmental organizations for providing overseas training of this type, this U.S. Census Bureau "goodwill," which may be found in many developing countries, should not be discounted.

The physical facilities provided for the workshop were excellent (see photographs). The workshop was provided a classroom in the Institute for Public Administration and Management of the University of Sierra Leone. The room was large and well-lit with a large blackboard. The desks were adequate as was the ventilation. The sessions were run from 9 A.M. to 2:30 P.M. with a couple of short breaks. While the sessions tended to drag a bit toward the end of the day, there was no good alternative to this scheduling. The alternative of breaking the sessions in the middle of the day, with separate morning and afternoon sessions leaves the participants inattentive and unalert for the mid and late afternoon sessions (in a hot tropical country where air conditioning is not available).

In summary, the workshop would have to be rated as successful, as many of the participants (although probably not as many as one would like) will be able to use the skills they acquired in the next Census. More extensive "pre-planning" might have increased the numbers who will be involved in the Census. More extensive treatment of the data collection phase of a Census operation (with a greater emphasis on local issues, data collection problems),

more time spent on sample survey data collection techniques (for those who will not be involved in the Census) and perhaps split sessions aiming at disparate audiences might be considered in the future. Separate issues relating to the utility of the Popstan manuals will be considered below.

Finally, the political importance of country workshops such as this one should not be underestimated. In a country such as Sierra Leone which has limited financial resources, a small pool of trained personnel, and conflicting priorities for limited resources, a workshop such as this one can sometimes be the factor which precipitates a surge of Census interest. According to Mr. Armand Thomas, the director of the Demographic Unit at Fourah Bay College and Dr. Benjamin, the director of the Central Statistics Office, this workshop (and its attendant publicity) might well have been the event which moves the 1984 Sierra Lone Census onto center stage.

#### OTHER REGIONAL WORKSHOP CONSIDERATIONS

While no member of the workshop team was able to go to Gabon, several general comments regarding planning for the regional workshops are also in order. While it is acknowledged that political and logistic considerations are of great importance in deciding where and when to locate regional workshops, these rationales should be carefully weighed against considerations specific to the needs of the countries involved. For example, Libreville, Gabon was chosen as the site for a 1981 regional mapping workshop because of the willingness of the host country to provide appropriate facilities. However, given the knowledge that about half the workshop participants were Gabonese and that the workshop was held a year after the Gabonese Census (and presumably nine years before the next Census) the appropriateness of both the location and mix of participants must be questioned. While political and

logistic considerations are obviously a major consideration in the selection of location and participants, it is suggested that the over-riding rationale should be that the workshop candidates are appropriately matched with the training objectives of the workshop. In the case of Gabon, the location and mix of the participants seems to have been less than optimal.

The team member visiting Sierra Leone took the opportunity while there to meet with three Sierra Leoneese who had attended Census Bureau regional workshops in Nairobi or Cairo. In all three instances, it appears that the regional workshops greatly enhanced the capabilities of the participants for census and survey research activities. Two of the three participants are senior officials in the Central Statistics Office and will be directly involved in the forthcoming Sierra Leone Census in senior supervisory capacities (see attachment for specific identification of participants). In spite of their extensive experience, they both indicated that the knowledge they gained from the regional workshop left them with a more comprehensive perspective regarding all the phases of a Census operation. Thus, in addition to being able to better train their own staff, they will be able to interact more effectively with other government officials who will be involved in the Census because they will have a better understanding of their roles in the Census activity.

The third participant is employed in the planning ministry. While he will not have direct line responsibility in the Census, he will be a member of the Census planning committee which will coordinate the Census data needs of the various ministries. Thus, much of the knowledge he gained regarding the breadth of a Census operation will be of considerable value when evaluating the feasibility of incorporating the data needs of a diverse group of potential data users.

All three of the regional participants interviewed in Sierra Leone felt strongly that the regional seminars should be aimed at a more general audience of middle and higher level bureaucrats, where the principal consideration is that they get the "big picture." In contrast, country workshops need to focus to a greater extent on detailed material specific to the country which leave the participants with a good understanding of how to actually collect and process the data; the more "hands on" field experience, the better. All three participants also felt that the workshop would have been greatly enhanced if it had run several weeks longer--with additional emphasis particularly on quality control aspects of data collection and processing and more time spent on non-Census sample survey data collection methods.

#### UTILITY OF THE POPSTAN MANUALS AND SUGGESTIONS FOR IMPROVEMENT

Evaluation of the various Popstan materials should be considered from the perspective of two functions--utility for regional or country workshops and as a general reference for Census-related activities in developing countries. The overall format of the manuals which is geared towards a systematic implementation of a Census in a mythical developing country has inherent strengths and weaknesses. The strengths include its structure, which attempts to lay out in a step by step manner "how to carry out a Census," the succinct well-written reading style and, to a considerable degree, the way in which it frequently translates complex materials into an easy to understand and follow format.

It's principal weaknesses relate to the attempt to be too many things for different kinds of audiences and the tendency for repetitiveness inherent in the format, which starts with a general volume and then repeats many of the same topics in greater detail within the Popstan framework. A general comment

which has been made both by Census personnel as well as by many workshop participants is that volume A provides an excellent synthesis of subject areas to be considered in a Census but that in many instances the other volumes, particularly B and C (the volumes which represent the core of the material for a country Census works .op) frequently are heavily repetitious of material already covered in Volume A. This is because the specific Popstan case study begins with Volume B and in many instances repeats earlier material in order to relate it directly to Popstan.

As an additional general comment, it is felt that the particular Popstan format, in addition to being repetitious, does not perhaps represent the most efficient way to present materials which of necessity must (in some instances) be frequently updated reflecting changes in the state of the art and which is utilized to varying degrees by technical and non-technical personnel with differing and frequently highly specialized needs. A preferable format which could meet the needs of a wider range of individuals might be one general volume considering all Census issues (as Volume A is now constituted) followed by a far greater number of more specialized and, in some instances, more comprehensive manuals on topics such as training techniques, interview construction, sampling, programming, and tabulation procedures. This approach would have a number of advantages. First, it would permit the development of highly comprehensive materials on specialized topics which would meet the needs of individuals in the field who will be presenting specialized workshops or who are technicians working in a specialized area. As new technology appears, the costs involved in updating one specialized manual would be far less than having to revise a larger less focused manual (as the Popstan manuals are currently constituted). The logistics and time frame for updating would be shorter. Also, from the perspective of the U.S. Census Bureau,

requests for specific topical information could be met without having to send out the voluminous Popstan package. Finally, a specialized user could expeditiously find what he needs without having to sift through bits and pieces of several manuals and the Census training would have less need for supplementary materials when focusing on a specific subject area in their lectures--an occurrence quite common in Sierre Leone and the Phillipines. It should be emphasized that a general volume such as Volume A would remain as the basic reading material for lectures intended to provide a general orientation for Census personnel.

The volumes, as presently constituted, are of uneven quality. This partly reflects the great difficulty in preparing technical materials intended for highly diverse audiences (from secondary school level through college, from high level administrators to lower level subject matter specialists). It is also related to the great difference between preparing technical instruction on subject matters which to differing degrees can be adequately covered in a finite number of pages (e.g., contrast the technical requirements for understanding proper questionnaire construction with those needed to understand programming!). Programming is one area which obviously cannot be comprehensively covered in manuals of this type and sampling is another. These topics should either be covered by more extensive materials or else perhaps truncated and considered in only a most superficial level.

Other specific comments made by Sierra Leone participants included a desire for more detailed treatment of how to train individuals for Census field activities, and a more intelligible and balanced treatment of content and coverage error evaluation. Coverage and content error evaluation as well as general issues associated with errors in reporting could, perhaps, have been considered far more comprehensively and effectively in a separate

specialized report.

Perhaps the single biggest gap in the manual series was the lack of any extensive discussion of age and other kinds of reporting errors which can be idiosyncratic to particular cultures. It had been anticipated that Volume F (Variations for Local Conditions) would have extensively considered issues related, for example, to differences in data collection needs and reporting errors between various Asian and African cultures. This could have included, for example, a discussion of "purdah" within the Muslim culture, age misreporting errors in various cultures, how births and infant deaths are considered differently in different cultures, differences in the meaning and interpretation of the concept of marriage and so on. In some ways, the hypothetical Popstan format constrained discussions which focus on heterogeneity between cultures. Also, it would have been preferable to include more material in the manuals which clearly came from developing societies, rather than relying so heavily on forms and formats drawn from the U.S. experience. In general, Volume F (Variations for Local Conditions) is really mis-named. A volume truly dealing with cultural variations is needed.

If the current format is continued, it is suggested that each section include a list of references/bibliography as well as Census offices/branches/divisions to contact for additional information on specific topics. It should be emphasized that the principal utility of the manuals is as a shelf reference for developing work technicians and administrators. The value of the manuals for meeting this need would be enhanced if bibliographies/sources for additional technical contacts were included.

Perhaps the weakest component of the Popstan series is the workbook. It was not used at all in the Sierra Leone workshop. The Census instructors felt the workbook materials were too low level--and this was a workshop that

included some participants who had not completed secondary school. This reviewer, a professional demographer, found the workbook questions to be frequently ambiguous and also interpretable only within the context of a particular paragraph on a particular page in one of the earlier volumes. From a pedagogical perspective, the questions included in the workbook frequently did not "teach" Census-related material in any generalizable sense. Also, from the perspective of a country workshop, it would be advantageous to maximize the inclusion of training material and questions drawing on the local experience. This could be done by developing general questions which could easily be made country-specific prior to a particular country workshop.

With regard to the Sierra Leone workshop, not surprisingly, the participants found manuals A, B and C to be the most useful, as these were the manuals most extensively used by the participants. However, a number of participants commented on the repetitiveness of the material in manuals B and C. Also, a frequent comment was that the manuals would ultimately be most useful as reference materials when the Sierra Leone Census actually begins.

#### DEMOGRAPHIC TRAINING IN SIERRA LEONE:

##### IT'S LINK TO THE WORKSHOP AND THE CENSUS

The Demographic Unit in Fourah Bay College is the major demographic training institute in Sierra Leone. Armand Thomas is the acting director and a Mr. Myers is the only other staff member. The unit was founded in 1973 under U.N. auspices. At present there is no international funding support. Their U.N. support for library materials recently ended so all their journal subscriptions and continued accession of many relevant books will cease.

The Institute does not offer degrees itself but services a number of social science departments, including geography, sociology, and economics. It

offers four demography courses at increasing levels of difficulty with the primary emphasis being on the relationships between population and economic development. The courses mesh substantive material and demographic techniques at increasingly sophisticated levels as one moves from the most basic to most advanced courses.

Several research projects are underway including: (1) a study on women and demographic change in Sierra Leone. The data for this survey are currently being processed in New York. (2) A comprehensive atlas and tabular material based on 1974 Census data. Armand Thomas showed me a number of the materials related to this project and they were very well done. He is looking for a commercial publisher. Given the very limited Census materials which are (or will become) available, this material could substantially augment the pool of demographic knowledge about Sierra Leone. (3) A Family Planning Study by Mr. Myers, and (4) a (tentatively planned) study on the incidence of river blindness in northern Sierra Leone.

The unit has no local access to a computer. Funds for materials, books and training are urgently needed. The unit also would like to send senior people abroad for advanced degrees. Armand Thomas has been admitted to the Johns Hopkins Ph.D. program and Mr. Myers to the program at Pennsylvania, but both were forced to decline because of lack of funds. The unit has three good high school graduates who could benefit from the I.S.P.C. training program. Mr. Raymond Edwin Belle-Taylor, who works in the unit, has completed the I.S.P.C. one-year program and according to Armand Thomas benefitted considerably. Whereas he was a marginal employee before he attended the program, he is now extremely useful. He has organized and run small scale rural surveys all on his own--based almost completely on what he learned in Washington.

Armand Thomas will be in the middle of the fourthcoming 1984 Census activities. He has a good working relationship with Dr. Benjamin, the head of the C.S.O. Also, Dr. Benjamin is on the Board of Directors of the Demographic Unit. The unit is in a position to take on a number of Census-related activities over the next few years including coding, data analysis, and perhaps most importantly, training of Census personnel. The fact that a number of Fourah Bay staff members have just completed the Census workshop will greatly augment their ability to take on these activities. However-- money will be needed!

APPENDIX G  
SUPPLEMENTARY INFORMATION ON THE PHILIPPINES WORKSHOP

- (2) Timetable/Outline "Technical Workshop on Evaluation of A Census"
- (3) List of materials distributed to participants
- (4) Census Evaluation - Questionnaire
- (5) Outline - Biographical Sketch

(9)

List of Participants - Regional Workshop  
Evaluation of Census Data - Manila, Philippines  
August 30 - September 17, 1982

| <u>Country</u> | <u>Name and Title</u>  | <u>Degree(s), University, Date</u>  |
|----------------|--|---|
| Bangladesh     | Abdul <u>Baten</u> , Director<br>Data Processing Wing<br>Bureau of Statistics  | Bachelors Degree in Economics &<br>Mathematics<br>Karachi Univ., Pakistan, 1962                         |
| India          | J.C. <u>Kalra</u> , Deputy Director<br>of Census Operations (Punjab)   | M.S.C. Mathematics, One year<br>statistics at Univ. of Calcutta   |
|                | A.W. <u>Mahatme</u> , Joint Director<br>of Census Operations   | M.S.C. Mathematics & Statistics,<br>University of Bombay, 1948  |
|                | M.L. <u>Sharma</u> , Deputy Director<br>of Census Operations   | M.A. Economics & Statistics,<br>Vikram University, India, 1959  |
| Indonesia      | Sugeng <u>Margono</u>  |   |
|                | Sri Pamoedjo <u>Rahardjo</u> ,<br>Deputy Director Institute<br>of Demography   | Ph.D. Sociology, Florida State<br>University, 1981<br>M.A. Economics, University of<br>Indonesia, 1973  |
|                | Toto Enda <u>Sastrasuanda</u><br>Chief, Methods Division<br>Bureau of Analysis and<br>Development, Central Bureau<br>of Statistics | M.S.C. Statistics, 1980,<br>Certificate in Demographic<br>Training, 1968, Bogor Inst. of<br>Agriculture |
| Korea          | Tai-Hun <u>Kim</u> , Chief, Pop.<br>Census Section, Pop. Stat.<br>Div., National Bureau of<br>Statistics                           | B.A. Economics, Korea Univ., 1970<br>M.A. Demography, The Australian<br>National University, 1981       |
| Nepal          | Laxman Bahadur <u>Basnet</u> ,<br>Gazetted Officer II Class  | M. Phil., Cairo Demographic<br>Center, 1982   |
|                | Keshav Raj <u>Sharma</u> , Deputy<br>Director, Census Organ.   | M.A. Mathematics, Tribhuvan<br>Univ., 1970<br>M.A., Georgetown Univ., 1981                              |

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| <u>Country</u> | <u>Name and Title</u>   | <u>Degree(s), University, Date</u>  |
|----------------|---|---|
| Pakistan       | Muhammad Aslam <u>Chaudhry</u> ,<br>Deputy Census Commissioner  | M.A. Statistics, Punjab Univ.,<br>Lahare, Pakistan, 1968<br>M. Phil. Demography, U.N. Cairo<br>Demographic Centre, Cairo, Egypt,<br>1978                        |
|                | Rana Insaf Ali <u>Khan</u> , Deputy<br>Census Commissioner  | Masters in Economics, Pakistan,<br>1965<br>One Year Demographic Training at<br>East-West Population Institute<br>Honolulu, Hawaii, 1976                         |
| Philippines    | Socorro <u>Abejo</u> , Census<br>Statistician   | B.S. Statistics, University of<br>the East, Manila, Philippines   |
|                | Nida <u>Altares</u> , Census<br>Statistician  | B.S. Chem. Engineering, Adamson<br>University, 1978<br>Candidate for Masters in Applied<br>Statistics, Polytechnic Univ. of<br>the Philippines, Oct. 1979-Pres. |
|                | Maria Angeles <u>Bautista</u> ,<br>Census Statistician  | B.S. Mathematics, St. Louis<br>Univ., 1979<br>Candidate for Masters in Applied<br>Statistics, Poly. Univ. of the<br>Philippines, 1980-Present                   |
|                | Rosalinda <u>Bautista</u> , Census<br>Statistical Coordinator   | B.S. Statistics, Univ. of the<br>Philippines, 1978<br>Candidate for Masters in Applied<br>Statistics, Poly. Univ. of the<br>Philippines                         |
|                | Mari Agnes <u>Nano</u> , Census<br>Statistician   | B.S. Mathematics, Pamantasan ng<br>Lungsod ng Maynila, 1980<br>Candidate for Masters in Applied<br>Statistics, Poly. Univ. of the<br>Philippines, 1980-Present  |
|                | Roseo T. <u>Oracion</u> , Census<br>Statistician I  | BSME, University of the East,<br>1979   |
| Sri Lanka      | Swarnalatta <u>Ukwatta</u> ,<br>Statistical Officer   | Special Degree - Developmental<br>Studies, Univ. of Sri Lanka,<br>Vidyodaya Campus, 1977  |
| Thailand       | Chintana <u>Pejaranonda</u> ,<br>Statistician, Chief,<br>Demographic Technique Unit<br>Chulalongkorn University | B.Com.  |

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TECHNICAL WORKSHOP ON EVALUATION OF A CENSUS

WEEK ONE

|             | August 30<br>Monday                  | August 31<br>Tuesday | September 1<br>Wednesday | September 2<br>Thursday                          | September 3<br>Friday                                |
|-------------|--------------------------------------|----------------------|--------------------------|--|--|
| 8:30-10:00  | Welcoming ceremony                   | Cohort Analysis      | Cohort Analysis          | Comparison of totals from administrative records | Immigration and emigration                           |
| 10:30-12:00 | Overview of an evaluation program    |                      |                          | Balancing formula                                | Effect on population estimates                       |
| 1:15-2:30   | Sources and classification of errors | <u>Laboratory</u>    | <u>Laboratory</u>        | <u>Laboratory</u>                                | The U.S. evaluation program using analytical methods |
| 2:45-4:00   |                                      |                      |                          | Evaluative studies of techniques                 |  |

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TECHNICAL WORKSHOP ON EVALUATION OF A CENSUS

WEEK TWO

|                 | September 6<br>Monday                     | September 7<br>Tuesday                             | September 8<br>Wednesday                                | September 9<br>Thursday | September 10<br>Friday                         |
|-----------------|---|--|---|-------------------------|--|
| 8:30-<br>10:00  | Assessing<br>accuracy of<br>census data   | <u>Laboratory</u>                                  | <u>Laboratory</u><br>Worked<br>example                  | PES<br>Methodology      | Presentation<br>of laboratory<br>results       |
| 10:30-<br>12:00 | Content errors &<br>Age-sex<br>evaluation |  |   |                         | Dual system<br>estimation                      |
| 6-5             |   |  |   |                         |  |
| 1:15-<br>2:30   | Age-sex<br>evaluation                     | Adjusting<br>data on the<br>basis of<br>evaluation | Intro. to<br>coverage error                             | <u>Laboratory</u>       | Application<br>of<br>dual system<br>estimation |
| 2:45-<br>4:00   |   |  | Organization<br>& Administration<br>of a PES<br>program |                         | <u>Laboratory</u>                              |

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TECHNICAL WORKSHOP ON EVALUATION OF A CENSUS

WEEK THREE

|                 | September 13<br>Monday                               | September 14<br>Tuesday                          | September 15<br>Wednesday          | September 16<br>Thursday                      |  |
|-----------------|--|--|------------------------------------|---|--|
| 8:30-<br>10:00  | Longitudinal<br>Studies                              | General model<br>content error<br>evaluation     | <u>Laboratory</u><br>(cont)        | Reinterview<br>Surveys                        |  |
| 10:30-<br>12:00 | Other coverage<br>error<br>measurement<br>techniques | Correlated<br>component<br>analysis              | Class presentation<br>of results   | Other<br>methods for<br>content<br>evaluation |  |
|                 |  |  |                                    |   |  |
| 1:15-<br>2:30   | Review of<br>basic<br>concepts                       | Implementation<br>of interpenetration<br>studies | Repeated<br>Measurement<br>Designs | <u>Laboratory</u>                             |  |
| 2:45-<br>4:00   | Intro. to<br>Content<br>Error                        | <u>Laboratory</u>                                |                                    | Closing<br>ceremony                           |  |

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MATERIALS DISTRIBUTED TO MANILA WORKSHOP PARTICIPANTS

References

Feeney, Griffeth. 1979. A Technique for correcting Age Distributions for Heaping on Multiples of Five. Asian and Pacific Census Forum 5(3): 12-14. (Responses to article in Census Forum 6(1), 6(4) and 7(2))

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\* For distribution at workshop

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  - \* PART B Chapter 10 Coverage Evaluation Program
  - \* PART D Chapter 11 Coverage Evaluation and Special Reports
- U.S. Bureau of the Census. 1973. 1970 Census of Population and Housing: Evaluation and Research Program PHC (E)-7. The Medicare Record Check: An Evaluation of the Coverage of Persons 65 Years of Age and Over in the 1970 Census.
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(12)

**Census Evaluation Workshop  
Manila**

1. Does your country routinely measure the completeness of coverage of population in your censuses?
  
2. What kind of methodology is used?
  
3. How extensive is the geographic detail for which coverage estimates are prepared?
  
4. Are the census data adjusted and, if so, what specific uses are made of the adjusted series?
  
5. Are census data (unadjusted) used for some purposes whereas adjusted figures are used for others?
  
6. Is the question of census undercount an important issue in your country?

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U.S. DEPARTMENT OF COMMERCE  
Bureau of the Census  
International Statistical Program Center  
Washington, D.C. 20233

BIOGRAPHICAL SKETCH

NAME:

COUNTRY:

BIRTHPLACE:

BIRTHDATE:

PRESENT POSITION:

PRESENT DUTIES:

EDUCATION:  
(University, degree, year)

SPONSOR:

NAME OF WORKSHOP: Census Evaluation CSM

LOCATION OF WORKSHOP: Manila, Philippines

DATE OF WORKSHOP: August 30 - September 16, 1982

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APPENDIX H

Notes from interview with Mr. Jim Davis (BUCEN) and from his Gabon trip report relating to the Gabon workshop and the utility of the Mapping Manual.

Regarding the Gabon Workshop

A. From Jim Davis' Trip Report

(1) "... an advance man two or three months in advance of the workshop ... would have been able to get a better sense of the local situation than was possible by telegram and ... much more important ... discuss more fully with the Gabonese what would be required of them (space, transportation)."

(2) "As at the earlier Dakar workshop, there was an enormous range of knowledge and expectations among the participants."

"We wonder whether ... problem might be somewhat alleviated in future workshops by the sending of a more detailed description of workshop content to embassies and missions."

B. From Interview with Jim Davis

(1) It would have been useful to integrate the mapping workshop material more fully within a general Census (or Popstan?) framework. In particular, the nature of the connections between data collection techniques and how they are linked to mapping.

(2) The mapping workshop was "after the fact" for the twelve Gabonese, whose Census has already been completed.

(3) The satellite image component of the workshop was not effective.

(4) The workshop would have been more effective if the maps used for instruction had actually been linked with old Gabonese Census materials.

(5) Perhaps more could have been done with aerial photography but he would have needed more copies of the same map and a greater number of (expensive) pocket stereoscopes.

Regarding the Mapping Manual

(From Personal Interview with Jim Davis)

- (1) In general, the mapping manual is excellent (the french version in this case) and was readily used and understood by the participants.
- (2) The importance of the coding linkage to specific geographic areas (Chapter 15) could be emphasized more.
- (3) Generally, the manual and the workbook worked quite well together.
- (4) P. 104-105 in the manual are relatively useless. Perhaps they rely too much on U.S. examples.
- (5) It would perhaps be preferable if there were more emphasis in the manual on mapping for sample surveys--techniques of more generalizable value to many of the workshop participants.
- (6) Chapter 12, dealing with problem areas, was not too helpful, Chapters 9 and 10 are very good.

APPENDIX I.

Table I. 1

SUMMARY OF EXPENDITURES FOR WORKSHOPS CONDUCTED BY CENSUS OR CENSUS ASSISTED UNDER 1980 WORLD CENSUS RSSA

|       | AID & Non-AID Workshops               |                                     |                                |                                      |   | CENSUS CONDUCTED WORKSHOPS <sup>3/</sup> |                                 |                   |                                  |                    |                         |  |                         |                               |                   | UN, EMP, CIEMES, ETC. WORKSHOPS/SEMINARS <sup>4/</sup> |                          |                         |                                   |                    |   |                    |                            |                     |  |                    |
|-------|---------------------------------------|-------------------------------------|--------------------------------|--------------------------------------|---|--|---------------------------------|-------------------|----------------------------------|--------------------|-------------------------|--|-------------------------|-------------------------------|-------------------|--|--------------------------|-------------------------|-----------------------------------|--------------------|---|--------------------|----------------------------|---------------------|--|--------------------|
|       | Costs for All Workshops <sup>2/</sup> |                                     |                                |                                      |   | Total Cost Workshops                     |                                 |                   |                                  |                    | Cost to AID             |  |                         |                               |                   | Free to AID  |                          |                         |                                   |                    | Total Cost Workshops                    |                    |                            |                     |  |                    |
|       | BSSA Funds <sup>1/</sup>              |                                     | Costs for All Workshops        |                                      |   | Number Held                              | Cost to AID & Free              |                   | Total AID Costs                  |                    |                         | Airfare, per diem, other workshop expenses |                         | Staff Salaries, GS-11 & Above |                   | Total Contributed Salary Costs                         |                          | Number Workshops Budget | Total Cost Workshops              |                    | Cost To AID                             |                    |                            |                     | Total Census Contributed Costs for Staff |                    |
|       | Total Available (000) (1)             | Actual Total Expenditures (000) (2) | Total Col 7 + Col 1a (000) (3) | Cost to AID Col 9 + Col 20 (000) (4) | Contributed Costs Col 15 + Col 24 (000) (5) |  | Amount Col 9 + Col 15 (000) (7) | Average (000) (8) | Amount Col 11 + Col 13 (000) (9) | Average (000) (10) | Total Amount (000) (11) | Average (000) (12)                         | Total Amount (000) (13) | Average (000) (14)            | Amount (000) (15) | Average (000) (16)                                     | Assistance Provided (17) |                         | Amount Col 20 + Col 24 (000) (18) | Average (000) (19) | Total Amount Col 20 + Col 23 (000) (20) | Average (000) (21) | Travel Per Diem (000) (22) | Salaries (000) (23) | Amount (000) (24)                        | Average (000) (25) |
| FY 78 | 512                                   | 493                                 | 96                             | 82                                   | 14  | 4  | 47                              | 11.8              | 33                               | 8.3                | 3                       | 0.8  | 30                      | 7.5                           | 14                | 3.5  | 4                        | 49                      | 12.2                              | 49                 | 12.2                                    | 36                 | 14                         | -                   | -  |                    |
| FY 79 | 588                                   | 563                                 | 223                            | 202                                  | 21  | 5  | 142                             | 28.4              | 136                              | 27.2               | 51                      | 10.2(a)                                    | 86                      | 16.2(b)                       | 6                 | 1.0  | 10                       | 81                      | 8.1                               | 66                 | 6.6                                     | 23                 | 43                         | 18                  | 1.5                                      |                    |
| FY 80 | 532                                   | 535                                 | 230                            | 203                                  | 26  | 6  | 195                             | 32.5              | 177                              | 29.5               | 84                      | 14.0                                       | 97                      | 15.5(b)                       | 17(b)             | 2.8  | 4                        | 36                      | 8.0                               | 26                 | 6.5                                     | 17                 | 9                          | 9                   | 4.3                                      |                    |
| FY 81 | 429                                   | 361                                 | 121                            | 115                                  | 6   | 3  | 121                             | 40.3              | 175                              | 38.3               | 59                      | 19.7                                       | 56                      | 18.7(b)                       | 4(c)              | 2.0  | -                        | -                       | -                                 | -                  | -                                       | -                  | -                          | -                   | -  |                    |
| FY 82 | 336(e)                                | 297(e)                              | 104                            | 68                                   | 36  | 2  | 104                             | 52.0              | 64                               | 34.0               | 43                      | 21.7(a)                                    | 25                      | 12.5(c)                       | 34(c)             | 18.8   | -                        | -                       | -                                 | -                  | -                                       | -                  | -                          | -                   | -  |                    |
| Total | 2,457(f)                              | 2,249(f)                            | 773                            | 670(f)                               | 103   | 21                                       | 608                             | 29.0              | 529                              | 25.6               | 240                     | 11.4                                       | 346                     | 16.4                          | 79                | 3.8  | 14                       | 166                     | 9.2                               | 141                | 7.8                                     | 76                 | 66                         | -                   | -  |                    |

NOTE: During FY 78, AID requested all future workshops be held overseas. However, staff did conduct one workshop for Training Branch participants in FY 79; the costs for this workshop are not included in the table. Also, not included are costs associated with attending international meetings or travel associated with material preparation. Costs for preparation for FY 83 The Gambia Workshop expended in FY 82 indicated in parentheses.

1/ Does not include participant funds. Total expenditures obtained from end of year financial report, "actuals".

2/ Costs do not include salaries for executive-level staff, administrative office, para-professionals/clerical staff. Contributed costs included salaries for Bureau, UN, IASI, etc., BuCan-recruited staff used for workshops at no cost to AID.

3/ Salaries include: GS-11 and above professional staff and outside contractors used as instructors; preparation time in-country time, administrative time for correspondence, handling of participants by CSM staff, trip reports, etc. field exercises, supplies acquired in-country, etc.

Travel/per diem include: Brief visits in FY 79 and FY 80 (combined with other TDY trips), rental of classrooms, in-country transportation for field exercises, supplies acquired in in-country, etc.

FY 78: All Washington-based workshops; travel expenses for field demonstrations. Does not include Bureau, or mission experts who were used at no cost for 1 to 2 sessions. Does include contributed costs for experts used 3 or more sessions. Average grade level GS-14.

FY 79: 3 staff persons for workshop salary paid by BSSA; CSM arranged for 1 person from UN free for Mauritius Workshop. 3 workshops 3 weeks in length; minimal per diem costs. 2 workshops in Caribbean area; minimal airfare cost.

FY 80: 1 workshop 2 weeks in length and in Central America; minimal travel/per diem/salary. 4 workshops BSSA paid salary for 3 persons each. CSM arranged for 2 UN persons for 2 weeks each, 2 IASI/MS person one week each free. Salary costs for train persons estimated at GS-16 level.

FY 81: 2 UN persons from one week each, for 1 workshop.

FY 82: 3 Bureau persons free for Manila Workshop. New workshops more preparation time needed. Figures in parentheses for preparation of Gambia Workshop. New Workshop: other ISPC units contributed 2 months of GS-14 person; Bureau contributed 3 months GS-13 person for preparation of materials.

4/ Costs vary according to length of participation (1 to 4 weeks), location, staff sent; 1 person for 1 week at EMP1 average travel/per diem cost \$2,000 in 1978.

TABLE 1. Number of Workshops Specified in the FY 1978-FY1982 RSSA-4-75 Agreement, Total Budgets, and Estimated Budgets Professional Staff Time Available Per Workshop

| <u>Year</u> | <u>Number of Workshops Specified in the RSSAs<sup>a</sup></u> | <u>Budgets (in thousands)</u> |  | <u>Professional Staff (Months)</u> |                   |                                  |                               |
|-------------|---|-------------------------------|--|------------------------------------|-------------------|----------------------------------|-------------------------------|
|             |   | <u>Total</u>                  | <u>Estimated Proportion/Amount For Workshops<sup>b</sup></u> | <u>Estimated Per Workshop</u>      | <u>RSSA Total</u> | <u>Estimated Workshops Total</u> | <u>Estimated Per Workshop</u> |
| FY 1978     | 7   | \$492                         | 1/2/\$246  | \$35                               | 69                | 35                               | 5                             |
| FY 1979     | 6   | 588                           | 1/2/\$294  | 49                                 | 79                | 40                               | 6.7                           |
| FY 1980     | 6   | 787                           | 1/2/\$393  | 66                                 | 66                | 33                               | 5.5                           |
| FY 1981     | 3   | 567                           | 2/3/\$378  | 126                                | 46                | 30                               | 10                            |
| FY 1982     | 3 <sup>c</sup>  | 371                           | 3/4/\$278  | 93                                 | 44.5              | 33                               | 11                            |

<sup>a</sup>Slightly adjusted on the basis of discussions with BuGen staff, e.g., the RSSA for FY 1978 shows 8, but BuGen reports 7 plus 6 others at which some assistance was provided.

<sup>b</sup>The proportion available for workshops increased in recent fiscal years, because the development and production of the training materials was concentrated in the earlier fiscal years.

<sup>c</sup>In fact, only 2 workshops were held during this fiscal year.

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TABLE 2 Person Months of BuCen Professional Staff (GS-11 and above) Paid for Under RSSA 4-75 Agreements, Classified by Type of Activity

| <u>Year</u> | <u>BuCen (ISPC)<br/>Workshops</u> |                      | <u>Assistance<br/>to other<br/>workshops<br/>(EWPI, UN, etc.)</u> | <u>Materials<br/>Development</u> | <u>General<br/>Administration<br/>and Other</u> | <u>Total</u>             |
|-------------|-----------------------------------|----------------------|---|----------------------------------|---|--------------------------|
|             | <u>Person<br/>Months</u>          | <u>Average</u>       | <u>Person Months</u>  | <u>Person Months</u>             | <u>Person Months</u>                            | <u>Person<br/>Months</u> |
| FY 1978     | 10.0                              | 2.5                  | 2.5   | 73.0                             | 3.0   | 88.5                     |
| FY 1979     | 28.8                              | 5.8                  | 12.2  | 35.0                             | 4.0   | 80.0                     |
| FY 1980     | 43.0                              | 7.2                  | 3.5   | 9.0                              | 7.0   | 62.5                     |
| FY 1981     | 28.5                              | 9.5                  | --  | 10.0                             | 10.0  | 48.5                     |
| FY 1982     | 17.0                              | 8.5/7.3 <sup>a</sup> | 1.0 <sup>b</sup>  | 7.5                              | 8.5   | <u>34.0</u>              |
|             |                                   |                      |   |                                  |   | 313.5                    |

Source: Data supplied by BuCen 2/10/83

Note: The numbers of person months include BuCen staff and outside contractors. They do not include paraprofessional person months paid for under the RSSAs. The latter were substantial for some activities. For example, over the 5 years shown here, the numbers of paraprofessional months for materials development were 46, 39, 38, 24.5, and 6.5.

<sup>a</sup>Since 2.5 person months were used to prepare for the Gambia and Egypt workshops held in FY 1983 the 7.3 average for FY 1982 is more appropriate for comparative purposes.

<sup>b</sup>This is a slight anomaly, since the financial data show zero for this category in FY 1982.

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TABLE 3 Person Months of BuCen Professional Staff (GS-11 and above) Contributed by BuCen, Classified by Type of Activity

| <u>Year</u> | <u>BuCen (ISPC)<br/>Workshops</u> |                | <u>Assistance<br/>to other<br/>workshops<br/>(EWPI, UN, etc.)</u> | <u>Materials<br/>Development</u> | <u>General<br/>Administration<br/>and Other</u> | <u>Total</u>             |
|-------------|-----------------------------------|----------------|---|----------------------------------|---|--------------------------|
|             | <u>Person<br/>Months</u>          | <u>Average</u> | <u>Person Months</u>  | <u>Person Months</u>             | <u>Person Months</u>                            | <u>Person<br/>Months</u> |
| FY 1978     | 6.0                               | 1.5            | 2.0   | 6.0                              | 7.0   | 21.0                     |
| FY 1979     | 4.0                               | 0.8            | 2.0   | 6.0                              | 7.0   | 19.0                     |
| FY 1980     | 5.5                               | 0.9            | 0.5   | 5.0                              | 4.0   | 15.0                     |
| FY 1981     | 3.0                               | 1.0            | --  | 2.5                              | 6.0   | 11.5                     |
| FY 1982     | 3.0                               | 1.5            | --  | 12.0                             | 2.0   | <u>17.0</u>              |
|             |                                   |                |   |                                  |   | 83.5                     |

1985

TABLE 4 POPSTAN Materials Prepared by the Bureau of the Census:  
Amended Due Dates and Actual Delivery Dates

|   | Delivery Dates                      |                             |                                     |                             |                                     |                             |
|---|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
|   | English                             |                             | Spanish                             |                             | French                              |                             |
|   | <u>Amended Due Date<sup>a</sup></u> | <u>Actual Delivery Date</u> | <u>Amended Due Date<sup>a</sup></u> | <u>Actual Delivery Date</u> | <u>Amended Due Date<sup>a</sup></u> | <u>Actual Delivery Date</u> |
| <b>POPSTAN</b>                          |                                     |                             |                                     |                             |                                     |                             |
| A.                                      | March, 1979                         | May 1979                    | FY 1980                             | Sept. 1980                  | FY 1980                             | Sept. 1980                  |
| B.                                      | March, 1979                         | May 1979                    | FY 1980                             | Jan. 1981                   | FY 1980                             | July 1981                   |
| C.                                      | April, 1979                         | Aug. 1979                   | Dec. 1980 <sup>c</sup>              | March 1982                  | Dec. 1980 <sup>c</sup>              |                             |
| D.                                      | June, 1979                          | Sept. 1979                  | Dec. 1980                           |                             | Dec. 1980                           |                             |
| E.                                      | July, 1979                          | Aug. 1979                   | Dec. 1980                           |                             | Dec. 1980                           | Sept. 1982                  |
| F.                                      | September, 1979                     | March 1981                  | FY 1981 <sup>b</sup>                |                             | FY 1981 <sup>b</sup>                |                             |
| G.                                      | September, 1979                     | Nov. 1979                   | Dec. 1980                           | Sept. 1981                  | Dec. 1980                           | Oct. 1982                   |
| <b>Mapping for Censuses and Surveys</b> |                                     |                             |                                     |                             |                                     |                             |
| 1. Manual                               | March, 1978                         | March 1978                  | FY 1979                             | Sept. 1979                  | FY 1980                             | July 1980                   |
| 2. Workbook                             | March, 1978 (?)                     | April 1978                  | FY 1979 (?)                         | Sept. 1979                  | FY 1980                             | July 1980                   |

<sup>a</sup>Delivery date to printer, per RSSA amendments. These dates are from the FY 1979 PIO/T. Delivery dates during 1978 were specified in the FY 1978 RSSA documents.

<sup>b</sup>Arrange translation.

<sup>c</sup>The FY 1982 amendment specifies that "at least Part C of these two translations should be published in FY 1982."

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TABLE 5 Summary Information on the Distribution of POPSTAN and Mapping Manuals by the Bureau of the Census

| <u>Type of Manual</u>       | <u>Number Distributed to Institutions and Individuals</u> | <u>Number Distributed at Workshops</u> | <u>Total</u> |
|-----------------------------|---|--|--------------|
| POPSTAN                     |   |  |              |
| English                     | 1,435   | 197 <sup>a</sup>                       | 1,632        |
| Spanish                     | 159   | 43                                     | 202          |
| French                      | 69  | 30                                     | 99           |
| Subtotal                    | 1,663   | 270                                    | 1,933        |
| Mapping Manual and Workbook |   |  |              |
| English                     | 1,252   | 395                                    | 1,647        |
| Spanish                     | 345   | 65                                     | 410          |
| French                      | 117   | 86                                     | 203          |
| Subtotal                    | 1,714   | 546                                    | 2,260        |
| Total                       | 3,377   | 816                                    | 4,193        |

See text for note regarding uncertainty in these data.

<sup>a</sup>Parts A and B; only 62 copies of Parts C-G were distributed at the workshops.

TABLE 6 World Census Staff Workshops, 1979-1982

| <u>Country</u> | <u>Type</u>       | <u>Dates</u>                    |
|----------------|-------------------|---------------------------------|
| Barbados       | POPSTAN           | April 23 - May 11, 1979         |
| Indonesia      | Mapping           | June 4 - 23, 1979               |
| Sudan          | Mapping           | July 3 - 22, 1979               |
| Costa Rica     | POPSTAN (Sp)      | August 6 - 31, 1979             |
| Mauritius      | POPSTAN           | September 17 - October 12, 1979 |
| Senegal        | Mapping (Fr)      | February 4 - 22, 1980           |
| Sri Lanka      | POPSTAN           | February 18 - March 7, 1980     |
| Cameroon       | POPSTAN (Fr)      | March 17 - April 11, 1980       |
| Paraguay       | POPSTAN (Sp)      | May 7 - 30, 1980                |
| Panama         | Mapping (Sp)      | September 8 - 19, 1980          |
| Kenya          | POPSTAN           | September 1 - 26, 1980          |
| Gabon          | Mapping (Fr)      | April 13 - May 1, 1981          |
| Tunisia        | POPSTAN (Fr)      | April 30 - May 15, 1981         |
| Egypt          | POPSTAN           | May 31 - June 25, 1981          |
| Sierra Leone   | POPSTAN           | July 12 - August 6, 1982        |
| Philippines    | Census Evaluation | August 30 - September 16, 1982  |

PROPOSED WORKSHOP SCHEDULE FOR FY 1983

|            |                       |                               |
|------------|-----------------------|-------------------------------|
| The Gambia | Training for Trainers | October 15 - November 5, 1982 |
| Egypt      | Mapping               | January 17 - February 4, 1983 |

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TABLE 7 Numbers of Participants Attending BuCen Workshops, By Region and by the Relationship Between Timing of Workshops and Census Dates

|                      | Workshop           |                |               |           |              |
|----------------------|--------------------|----------------|---------------|-----------|--------------|
|                      | Total Participants | No Census Date | Before Census | Same Year | After Census |
| <b>Africa</b>        |                    |                |               |           |              |
| POPSTAN              | 103                | 9              | 69            | 7         | 18           |
| Mapping              | 60                 | 5              | 27            | 0         | 28           |
| <b>Asia</b>          |                    |                |               |           |              |
| POPSTAN              | 21                 | 0              | 16            | 5         | 0            |
| Mapping              | 19                 | 0              | 19            | 0         | 0            |
| <b>Near East</b>     |                    |                |               |           |              |
| POPSTAN              | 7                  | 0              | 0             | 0         | 7            |
| Mapping              | 3                  | 0              | 0             | 1         | 2            |
| <b>Latin America</b> |                    |                |               |           |              |
| POPSTAN              | 49                 | 0              | 46            | 3         | 0            |
| Mapping              | 9                  | 0              | 4             | 5         | 0            |
| Other                | 18                 | 0              | 18            | 0         | 0            |
| <b>Total</b>         |                    |                |               |           |              |
| POPSTAN              | 180                | 9              | 131           | 15        | 25           |
| Mapping              | 91                 | 5              | 50            | 6         | 30           |
| Other                | <u>18</u>          | <u>0</u>       | <u>18</u>     | <u>0</u>  | <u>0</u>     |
|                      | 289                | 14             | 199           | 21        | 55           |

Source: Appendix E, Training and Technical Assistance Provided Through 1980 Round of Censuses Project, 1978-1982.

TABLE 8 Use of Census Staff and Consultants in BuGen Workshops,  
April 1979-September 1982

English Speaking

POPSTAN: 5 Consultants, 17 Census

Other: 3 Consultants, 7 Census

Spanish

POPSTAN: 5 Consultants, 3 Census

Mapping: 1 Consultant, 1 Census

French

POPSTAN: 8 Consultants, 2 Census

Mapping: 4 Consultants, 2 Census

Total

POPSTAN: 18 Consultants, 22 Census

Mapping: 5 Consultants, 3 Census

Other: 3 Consultants, 7 Census

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26 Consultants, 32 Census

FIGURE 1.

Major Objectives of the Evaluation

1. General. How effective has this project been in assisting LDCs in implementing their censuses and processing data in timely fashion?
  - a. Collaboration with other International Statistical Institutions. How effective has BuCen been in collaborating with other international statistical institutions in providing technical assistance to LDC's? Have such activities been well coordinated so that workshops or seminars were complimentary and not duplicative of the efforts of other programs? In which area has BuCen been effective in collaborating with other statistical institutions? Has A.I.D. provided adequate guidance for the project?
  - b. Utilization of BuCen Resources. How BuCen resources have been utilized in implementing RSSA project activities? Staffing patterns? Facilities? To what extent other RSSA's (such as with A.I.D.'s S&T/DIU or various Regional Bureaus) have been coordinated and facilitated in implementing the project objectives?
  - c. Management/Administrative/Staffing Issues. Has BuCen provided competent staff for carrying out aspects of project activities? Has BuCen produced training materials and other reports according to the schedule outlined in annual RSSA? Has BuCen responded promptly to AID/W and Mission requests for assistance? How efficient has BuCen been in arranging workshops and administrating participant funds?
2. Workshops. Are workshops an appropriate means to achieve the project activities? Has BuCen been providing competent instructors in various workshops? Have the methods used to solicit participants to workshops been effective for recruiting only those who would contribute most to the implementation of national censuses? Were effective locations chosen for workshops? How many countries have profited from the workshops--can it be observed that the quality of census data improved and/or the duration of processing data shortened?
3. Manuals. (a) POPSTAN Manual. Are all materials included in various parts of POPSTAN manual necessary and sufficient for use by personnel in LDCs in planning a census, organizing a staff, designing questionnaires, pretesting, compiling, evaluating, analyzing, publishing census data on demographic, economic, and social characteristics within scheduled time period? Have the delays in producing the parts of the manual prevented its effective use by significant numbers of LDC's during the 1980 Round of Censuses? Are subject matters (including mathematical formulae)

Figure 1 cont.

discussed in various parts of the POPSTAN Manuals consistent with each other? Do the professional staff of international statistical institutions and LDC technicians consider the POPSTAN manual a useful tool (reference) for implementing a national census? Will the POPSTAN Manual be a useful reference beyond the period of 1980 round of censuses? (b) Mapping for Censuses and Survey. Are subject matters included in the 15 chapters of this census mapping manual comprehensive enough to meet the main cartographic needs relative to the implementation of a census in LDC's? Are the exercises included in the workbook realistic? Are techniques recommended in the Manual innovative enough to take advantage of recently developed technology? Do illustrations contained in the Manual contribute to the understanding of the objectives of mapping functions in a national census?

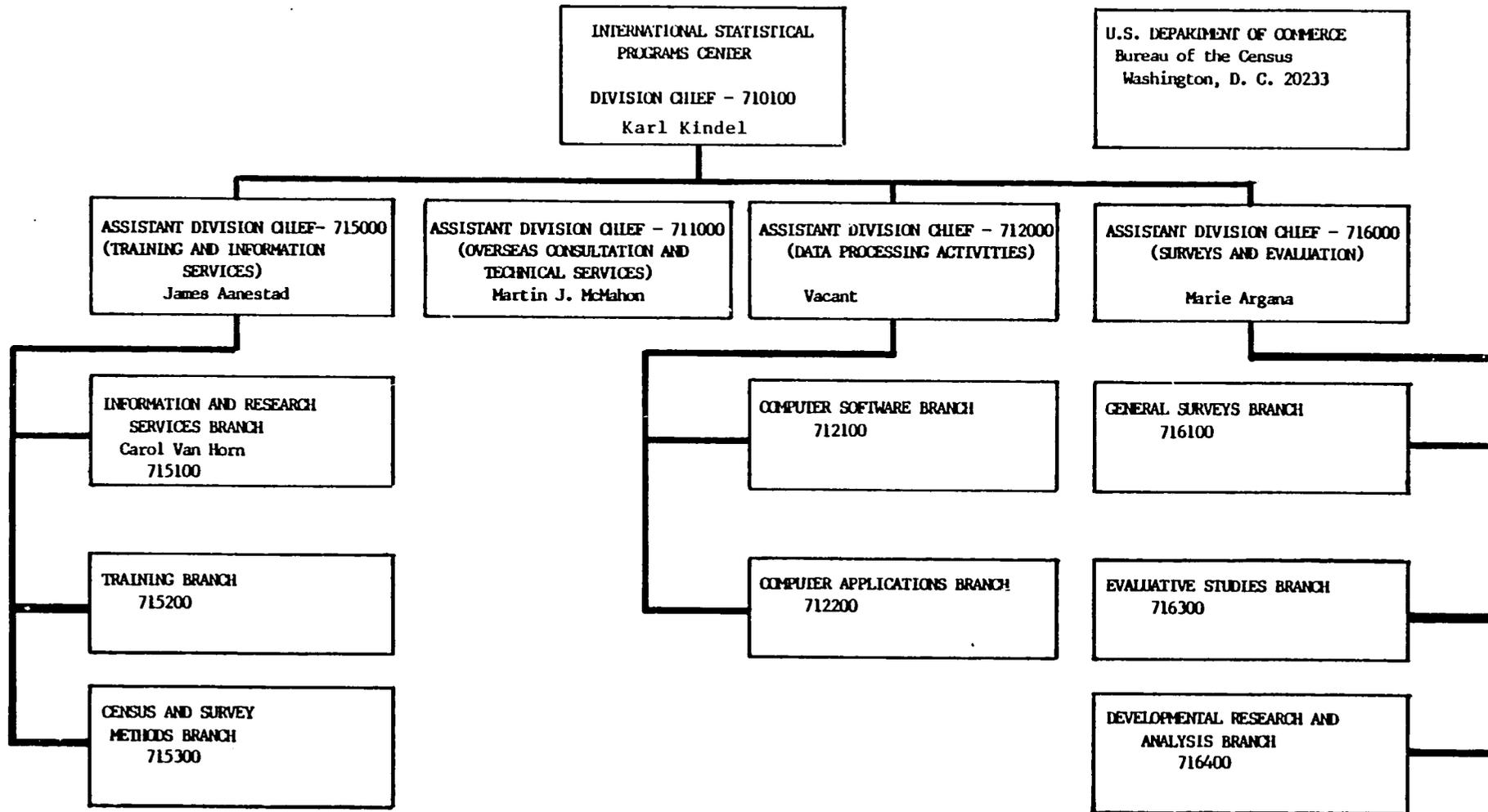
4. Recommendations. What are the evaluation team's recommendations for continuing support of census activities?

FIGURE 2

Major POPSTAN Project Tasks

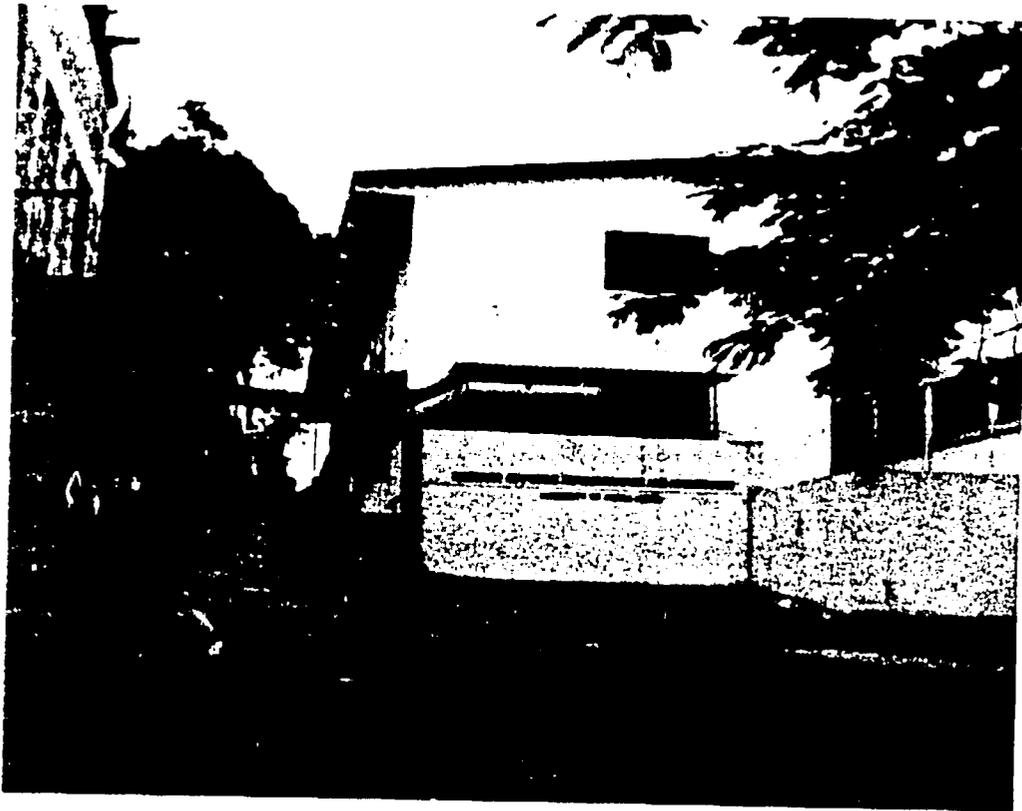
1. Preparation of Census training materials:
  - a. POPSTAN Case Study Manual. This Manual is comprised of seven parts which are designed to provide a case study example of the organization and operation of a census in developing countries in connection with the 1980 round of census program. The seven parts of POPSTAN manual are:
    - A. Program Considerations
    - B. Planning and Preparation for POPSTAN Census
    - C. Phase I, Complete Count for POPSTAN Census
    - D. Phase II, Census Sample for POPSTAN
    - E. Intercensal Household Survey Program for POPSTAN
    - F. Variations for Local Conditions
    - G. Workbook and Glossary
  - b. Manual of Mapping for Censuses and Survey. The first part of this Manual has 15 chapters ranging from organizing a mapping program to cartographic techniques and use of maps in censuses and surveys. The second part of the Manual is a workbook and glossary.
2. Conducting workshops, whether regional or country specific in various parts of the world, dealing with various aspects of census taking: mapping, census administration, census techniques, and census evaluation.
3. Collaboration with other international statistical organizations in providing technical assistance relative to census taking.
4. Integration with project activities being carried out by BuCen staff outside present RSSA: training materials developed under this project are used in ISPC's long-term training courses, workshops and technical assistance provided by BuCen with other RSSA/PASA funding (e.g. S&T/DIU projects).

Figure 3. ISPC Organizational Chart



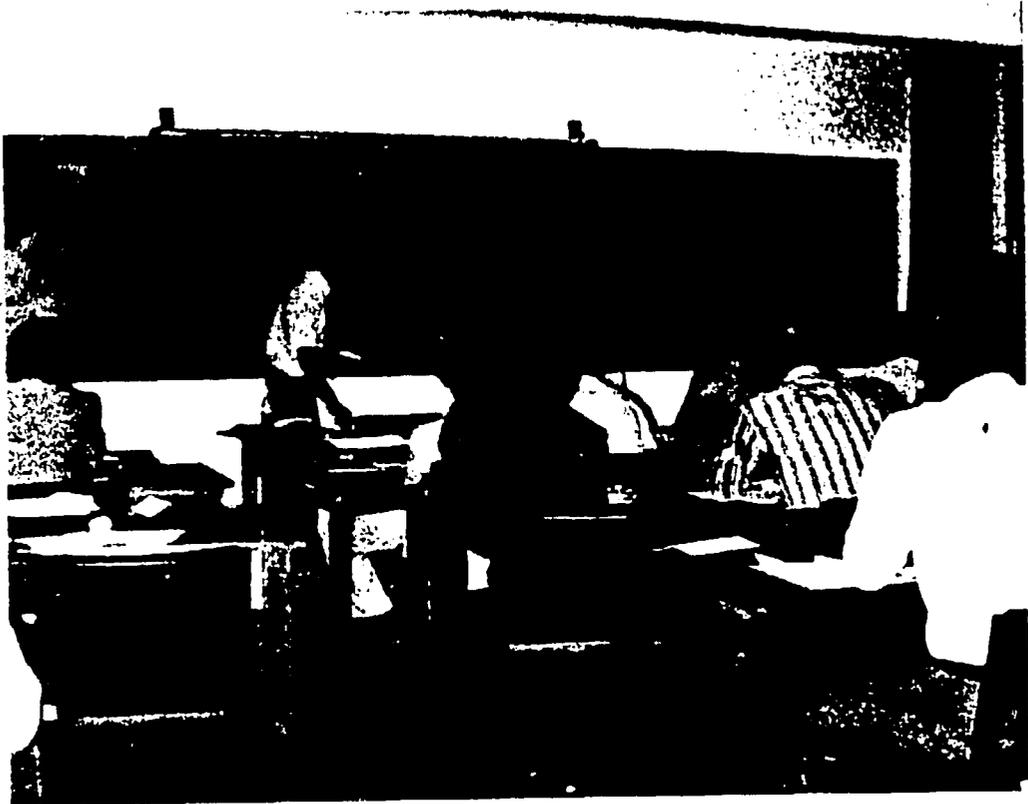
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Figure 4. Physical Arrangements 1982 Sierra Leone Workshop



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Figure 4 continued



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FIGURE 5. List of Items Available in Sierra Leone  
That Could Have Been Used in the Sierra  
Leone POPSTAN Workshop\*

- C. S. Okoye, (1979) An Evaluation of the Age and Sex Data of the 1974 Population Census of Sierra Leone Central Statistics Office, Census Analysis Project, Census Analysis Vol. 1, Freetown, Sierra Leone, March.
- C. S. Okoye, (1980) Mortality Levels and Differentials in Sierra Leone: An Analysis of the Mortality Data for the 1974 Population Census of Sierra Leone, Census Analysis Vol. 2, Central Statistics Office, Census Analysis Project, Freetown, Sierra Leone, February.
- C. S. Okoye, (1980) Fertility Levels and Differentials in Sierra Leone: An Analysis of the Fertility Data from the 1974 Population Census of Sierra Leone, Census Analysis Vol. 3, Central Statistics Office, Census Analysis Project, Freetown, Sierra Leone, September.
- C. S. Okoye, (1981) Population Distribution, Urbanization and Migration in Sierra Leone - An Analysis of the Sierra Leone 1974 Population Census Data, Census Analysis Vol. 4, U.N. Census Analyst, Census Analysis Project, Central Statistics Office, Freetown, March.
- C. S. Okoye, (1981) A Summary of the Findings of the Sierra Leone 1974 Population Census Analysis, U.N. Census Analysis Project, Central Statistics Office, Freetown, February.

Project Agreement Between the Government of Sierra Leone and United Nations Fund for Population Activities

UNFPA and the Government of Sierra Leone (1981) Proceedings of the Post-Census National Symposium on "Population and Planning for Development: The Sierra Leone 1974 Census in Perspective," Census Analysis Project SIL/78/P02, Central Statistics Office, Freetown, Sierra Leone, May.

August, 1982

\*A set of these materials is being delivered to AID.

**FIGURE 6. Chronological Listing of Selected Events Related to  
Planning for the Regional Workshop on Census Evaluation,  
Manila, Philippines, August 30-September 18, 1982**

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|                                 |   |
|---------------------------------|---|
| Fall, 1981                      | Decision made by BuCen/AID to hold Workshop in Manila in August and September, 1982   |
| Dec. 11, 1981                   | Draft outline for Workshop content completed  |
| Dec., 1981                      | Dr. Mijares, Director, NCSO Philippines, was contacted by senior officials of BuCen during ISI meetings in Buenos Aires about hosting the Workshop                                      |
| Jan. 4, 1982                    | Letter from Ms. Pinto to Dr. Mijares requesting sponsorship and informing him of her January visit to Manila  |
| Jan., 1982                      | Ms. Pinto held planning discussions with Dr. Mijares in Manila  |
| Jan. 28, 1982                   | Memo from William Goldman USAID/Manila, FOR THE RECORD describing NCSO role and the limitations of the role of USAID/Manila in handling the Workshop                                    |
| March 3, 1982                   | Letter from Ms. Pinto to ESCAP confirming August 30-September 17, 1982 dates and referring to ESCAP agreement to participate  |
| March 17, 1982                  | AID/W cable to missions about workshop. See illustrative example for Sri Lanka below  |
| Late March and Early April 1982 | Coordinator and Instructors were identified and teaching assignments made   |
| April 2, 1982                   | Memo from Ms. Pinto to Instructors describing the responsibilities for publications and written materials to be presented at workshop, conduct of workshop, trip and evaluation reports |
| April 26, 1982                  | Moderately-detailed workshop schedule sent to all participating missions.   |
| May 5, 1982                     | Follow-up letter to Dr. Mijares in Manila   |
| June 9, 1982                    | USAID/Manila letter stating that mission could not negotiate arrangements with hotels   |
| July 28, 1982                   | Hotel confirmed for Workshop  |
| August 30, 1982                 | First day of Workshop   |

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Figure 6 (Continued)

Record of Information about the Sierra Leone Workshop Preparations,  
Obtained September 20, 1982, at the Bureau of the Census

1981

6 October - General cable to several missions in Africa regarding a possible POPSTAN workshop

1982

12 January - Cable from Washington to mission:

PLEASED REGARDING POSITIVE RESPONSE FOR PROPOSED WORKSHOP

10 February - Details sent to mission regarding workshop

24 March - Cable to mission asking if GOSL has subject areas of special interest, and asking for materials from last census plus information on the upcoming census

12 May - Cable asking again for information on last census and forthcoming census

20 May - Cable back from mission saying material sent via pouch

15 June - Internal memo to computer applications branch regarding borrowing Vivian Toro (and paying for her time--two weeks--one in Sierra Leone and one for preparation)

18 June - Draft cable prepared for John Chao to send to Sierra Leone mission regarding staff/hotel and regarding sending 11 boxes of materials. Also, the draft cable included a long list of the schedule of topics to be covered during the workshop

Note: Only a shortened version of the draft cable was sent by John Chao plus a statement "detailed schedule being pouched to mission." This cable was sent 23 June 1982

28 June - Copy of the cable as sent by Chao seen by Nina Pinto, at which point Nina called the mission in Sierra Leone to give them the detailed schedule.

2 July - Memo to files from Leo Dougherty - copy provided to Frank Mott

Record compiled by R. Lapham, 20 September 1982, from Bureau of Census records.

Figure 6. (Continued)

SRI LANKA EXAMPLE - SELECTED CABLES

|                 |   |
|-----------------|---|
| March 17, 1982  | AID cable to Missions about workshop title and dates; requested nominations   |
| April 8, 1982   | USAID/Colombo cabled GSL nominations with Name, Designation, Age, Education and responsibility; Mission also requested complete schedule for workshop and requesting BuGen support for participant  |
| April 16, 1982  | AID cable to Colombo stated complete schedule would be sent later   |
| May 27, 1982    | AID cable to Colombo approving BuGen support for Sri Lanka participant  |
| August 9, 1982  | AID Cable to Colombo asking mission to provide information to participant, issue plane ticket, describe conditions of support to participant and ask her to bring a pocket calculator to workshop, and to notify AID/Manila of ETA/Manila |
| August 26, 1982 | USAID/Colombo cable to USAID/Manila provided ETA of participant   |

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Source: BuGen Files, Census and Survey Methods Branch, ISPC

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