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International Program of Laboratories for Population Statistics
University of North Carolina at Chapei Hill

TRIP REPORT No. 33

Korea (3)

Joremiah M. Sullivan

11-25 March 1979

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Trip Report

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I. Purpose of the Trip.

The main objective was to negotiate a contract for a survey to measure the level of fertility and mortality in Korea.

II. Organizations Visited.

National Bureau of Statistics (NBOS)
Korean Development Institute (KDI)
Korean Institute of Family Planning (KIFP)
Center for Population and Family Planning, Yonsei University (CPFP)
USAID/Seoul

Most of the visit was spent in Seoul at NBOS where the primary contacts were Dai Young Kim (Deputy Director for Statistical Surveys), Young Kwon Kim (Head, Population Statistics Division), and Nam II Kim (Vital Statistics Section). The primary activity was the writing of a contract.

III. Project Contract.

A tripartite contract was written between POPLAB, NBOS and KDI. The contract specified a project for collecting fertility and mortality data within the framework of the Continuous Demographic Survey (CDS), an ongoing survey conducted and funded by NBOS. This is a well-established multiround survey (monthly rounds) which covers approximately 20,000 households in 300 sampling points (1975 Census Enumeration Districts) throughout the Republic of Korea. The proposed project would continue the long series of national fertility sur-

veys which have monitored the progress of the Korean Family Planning Program since the early 1970s.

The project proposed a survey which collects information on births and deaths occurring in a one-year time period by the multiround format. The period of field work is projected to be July 1981 to July 1982. This is approximately 3 1/2 years after the last national fertility survey: the 1978 Family Planning and Fertility Survey. The project involves relocating the CDS to new sample areas and initiating procedures to strengthen the supervision and training of the CDS field staff. The new sample area will be selected from a sampling frame constructed from 1980 census results and will contain a population of approximately 100,000 or about 20,000 house-holds.

In addition, the proposed project offers an opportunity to test a modified procedure for collecting fertility and mortality data using the single-round retrospective survey approach. The plan is to collect retrospective data by the modified procedure in the baseline round of the relocated CDS. Vital rate estimates will be made from these data and they will be compared with the estimates derived from data collected by one year of follow-up rounds by the CDS. If it is determined that the modified procedure provides high quality data and accurate vital rate estimates, it will be a significant addition to the family of demographic techniques suitable for use in developing countries.

IV. Project budget.

Relative to the basic cost of 12 monthly rounds of the CDS which will be funded by NBOS, the cost of initiating procedures to ensure high quality data are minimal. The project budget calls for an NBOS contribution of \$395,410 and a POPLAB contribution of US \$88,895.

V. Factors of Special Importance to the Project Design.

A. Master Sample for NBOS Surveys.

Following the October 1980 census, NBOS will construct a master sampling frame which will provide samples for most of the surveys undertaken by NBOS. Samples for at least the four following surveys are to be based on the master sampling frame:

- 1. Continuous Demographic Survey
- 2. Survey of Economically Active Population
- 3. Living Standards Survey
- 4. Household Expenditure Survey

Planning for the master sample is now in its preliminary phase. Some options under consideration are discussed in Annex I. NBOS desires POPLAB consultation in further developing the master sampling plan, particularly with respect to 1) sample updating over time; 2) sample rotation in multiround surveys and, 3) the precision of regional level estimates.

The projected timetable for completing the construction of 4 computerized sampling frame is early to mid 1981. The CDS sample could be drawn immediately following frame construction and field work could begin soon thereafter.

B. Project Reports.

Two project reports are planned. The first, scheduled for late 1981, will contain fertility and mortality estimates based on retrospective data collected in the baseline survey. The second, scheduled for early 1983, will contain estimates based on current data from the CDS.

C. Expected Number of Events in the CDS

Past experience with the CDS has indicated the following number of events occurring in a sample of approximately 21,000 households.

Live births January 1, 1977 to August 31, 1978 3321
Infant deaths March 1, 1977 to August 31, 1978 85
Total deaths March 1, 1977 to August 31, 1978 900

D. Migration and Enumeration of Household Members.

Korea has extremely high rates of migration. This is a problem in multiround surveys which attempt to document the occurrence of events between rounds. The problem is mitigated by short intervals between rounds and this is part of the justification for the CDS being conducted at monthly intervals in the past.

A second problem requiring attention in the design of the CDS is the tendency for household informants to report people who have moved away (especially unmarried sons and daughters who are working or studying elsewhere) as household residents.

ANNEX I

Options for Constructing a Master Sampling Frame Prom the 1980 Population and Housing Census

It is planned to construct the master sampling frame from information obtained in the October 1980 census.

The basic unit for census activity is the enumeration district (ED). EDs which will consist of approximately 75 households (in both urban and rural areas) will be formed by local government officials under the supervision of NBOS staff (instruction manual for ED formation available at POPLAB in Korean, ED formation should be completed by July 1980). The expected number of EDs for the 1980 census is 100,000. A fixed percentage of EDs (between 10 and 15%) will be selected in which all households are administered the census long form. In the remaining EDs, all households will be administered the census short form. The process of selecting EDs for long or short form coverage will involve stratificat. In by province and urban-rural status.

The Master Sampling Frame will be constructed from long form EDs after stratification according to census data, in particular data on economic activity of the resident population. The procedure by which the long form EDs are assigned a variable value with respect to primary type of economic activity has important implications for the time required to construct a stratified Master Sampling Frame and thus the drawing to the new sample areas

¹ Copies of the 1980 Census Forms, in Korean, are available at POPLAB.

for the Continuous Demographic Survey. At this point, there appear to be at least two options.

- 1. The long form EDs could be stratified after all long form data are processed and each ED is accurately classified according to the primary economic activity of the resident population. Given the Korean population of approximately 38 million or 7 million households and a 15% subset of long form EDs, there will be about 1 million questionnaires to process. This will not be completed until mid-1981 at the earliest.
- 2. There are plans for advanced tabulations of the census results. These will be based on some sample of long forms which will receive priority in data processing. The current plan is for the advanced tabulations to represent 1 or 2% of the population which means 6.7 or 13.3% of the population or households in the long form EDs (again assuming 15% of Eds are selected for L.F. coverage). An important issue is whether or not the advanced tabulation plan can be structured so that the computerized data are sufficient for constructing the Master Sampling Plan.

If it is possible to classify EDs and develop a Master Sampling Frame from the advanced tabulations, the time table for the CDS would be greatly accelerated.

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ANNEX II

List of Persons Contacted

National Bureau of Statistics of the Economic Planning Board

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Jongnoku, Seoul 110, Korea Cable: NBOSEPB, SEOUL Tel: 75-5371 Main No. 72-1475 Pop. Div.

Heung Koc Kang Director General, NBOS

Dai Young Kim Deputy Director for Statistical Surveys

In Hwan Chung Head, General Affairs Divison

Young Kwon Kim

Nam Il Kim

Head, Population Statistics Division

Chief, Vital Statistics Division

Jae Chul Choe Vital Statistics Division

Hoon Bang Kye Chief, Sampling Section, Survey Management

Division

HSAID Mission

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William E. Paupe Mission Director (Home Tel. 7904-4086)

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John Sloboda Population Council Representative

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Center for Population and Family Planning, Yonsei University

Dong Woo Lee Professor

Korean Institute for Family Planning

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Son-Baick Lee Deputy Director

Ehn Maiun Choc Chief, Survey and Research Divison

Kap Suk Koh Senior Evaluation Officer

Che Bin Park Visiting Scholar

from BIOS Dept. School of P.H.

University of Ikwaii

World Fertility Survey

David Smith Visitor to NBOS

Dong-A University, PUSAN

Jae Young Park

Professor and Director of Dong-A University Population Institute

ANNEX III

List of Documents Obtained

1. Draft Questionnaires for 1980 Population and Housing Census (Oct. 1980) (in Korean)

Long Form: 15% of census enumeration districts (EDs)

Short Form: 85% of census EDs

2. Materials pertaining to Korean CDS (in Korean).

Questionnaires Supervisor and Enumerators Instruction Manuals

- 3. The 1976 National Fertility and Family Planning Evaluation Survey, B.T. Park, B.M. Choi and H.Y. Kwan, Korean Institute for Family Planning, Feb. 1979. (In English).
- 4. 1978 Family Planning and Fertility Survey, J. H. Byun and K.S. Koh, Korean Institute for Family Planning, Dec. 1979. (In Korean, Table headings in English).
- 5. Pamphlet describing KDI. (1978).
- 6. Instruction Booklet for constructing the 1980 census EDs. (in Korean).