

AID 1025-1 (7-71) (F./CE SHEET)
NONCAPITAL PROJECT PAPER (PROP)

Prop. 2770606-
 PD - AAC - 312-81

I. PROJECT IDENTIFICATION

1. PROJECT TITLE

POPLAB/TURKISH DEMOGRAPHIC STUDY UNIT

YES NO

2. PROJECT NO. (M.O. 1095.2)
277-11-570-606

5. SUBMISSION DATE
 ORIGINAL 12/5/73
 REV. NO. _____ DATE _____
 CONTR./PASA NO. _____

3. RECIPIENT (specify)

COUNTRY TURKEY
 REGIONAL _____ INTERREGIONAL _____

4. LIFE OF PROJECT

BEGINS FY 74
 ENDS FY 78

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR. * UNC		H. LOCAL EXCHANGE CURRENCY RATE: \$ US (U.S. OWNED)		
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY	
											(A) JOINT	(B) BUDGET
1. PRIOR THRU ACTUAL FY												
2. OPRN FY 74	272	24	12	8	12	96	144	67	(12)			\$101
3. BUDGET FY 75	200	23	12	16	24	13	148	75	(12)			107
4. BUDGET +1 FY 76	189	22	12	16	24	11	140		(12)			118
5. BUDGET +2 FY	168	22	12	16	24	10	120		(12)			139
6. BUDGET +3 FY	134	21	12	8	12	9	96		(12)			163
7. ALL SUBQ. FY												
8. GRAND TOTAL	963	112	60	64	96	139	648	350	(60)			\$628

9. OTHER DONOR CONTRIBUTIONS

(A) NAME OF DONOR	(B) KIND OF GOODS/SERVICES	(C) AMOUNT
FORD FOUNDATION	Local Currency	10

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER William B. Nance (Signature)	TITLE Ass't Program Officer	DATE 11/15/73
2. CLEARANCE OFFICER Joseph S. Toner (Signature)	TITLE Director, USAID/Turkey	DATE 11/16/73

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL a. The Project Agreement shall include a specific understanding by the Government of Turkey that the financial contribution by the Government to the support of the Project will in fact be provided in the amount shown in the Project budget b. The Project Agreement shall include a provision calling for the development by the Director of the DRC by the end of the first year of operation a detailed professional staff development training plan, the plan to include data on staff requirements, training resources to be employed (both domestic and international), and timing in relation to personnel needs. The plan should be up-dated annually.

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF.	SIGNATURE	DATE
PHA/POP/WA	R. Layton	4/22/74	PHA/PRS	M. Fowler	5-1-74
HA/POP/WA	R. Grant	4/29/74	PHA/PRS	W. Lufes	
PHA/POP	R. Backlund	5/1/74	ASIA/NE/T	C. Buck	4/29/74
PHA/POP	J. Shafer		ASIA/DP	F. Correl	
PHA/POP/DAE	J. Brackett	4/30/74	PFC/DPRE	A. Handly/R.M. Ward	
HA/PRS	A. Bigelow	4/29/74	GC/TFHA	A. R. Richstein	4/29/74

3. APPROVAL AAs OR OFFICE DIRECTORS

SIGNATURE	DATE
R. T. Havenholt	

4. APPROVAL A/AD (See M.O. 1025.1 VI C)

SIGNATURE	DATE
Jarold A. Kieffer	5/2/74

Director, PHA/POP

ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT
 Administrator, AID/PHA

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SUMMARY

This project will establish a Demographic Review Center (DRC) within the State Institute of Statistics (SIS) to improve the collection, analysis and use of demographic data in Turkey. Utilization of this data will enable Turkish planners to develop programs to achieve the GOT's major population goal of reducing the population growth rate to a rate comparable to that found in several European countries (0.4%) and to assist Turkey in maintaining the nation's population at a level consistent with its ability to provide the goods and services required to support and improve conditions of living for such a population.

The DRC will establish and conduct periodic nationwide demographic sample surveys (TDS) which will measure population change and related factors in a systematic and timely manner. AID support, which will extend over five years, will be reduced each year as the Government of Turkey assumes increased responsibility for the demographic unit. At the end of the third year, USAID and the other principals will review progress of the Unit to determine what, if any, changes in the structure are required to ensure project viability. At the end of the fifth year the support of the TDS will be taken over completely by the SIS. The decision to establish the Demographic Unit within SIS was a deliberate one by the Turkish Government.

The SIS is a viable, well established and respected institution which was assisted in its development by AID through the Development Statistics project (266-11-740-364) for eleven years (from 1962 through 1972). AID has been instrumental in developing within SIS a strong capability to provide much of the statistical data so vital to Turkey's planning for its social and economic development. SIS -- as Turkey's central statistical bureau -- has responsibility for collecting almost all of the nation's socio-economic data. It has nation-wide coverage and, in part through AID assistance, is administratively and technically well organized. A viable demographic survey unit within the SIS will substantially strengthen SIS's capability to provide demographic data for use of Turkey's planning institutions and policy makers and administrators of national population/family planning programs.

The DRC will share information on research methodology with demographic units (POPLABS) established previously with AID assistance in other developing nations (Colombia, Morocco, the Philippines, Kenya and Ecuador). The University of North Carolina International Program on Population Laboratories will play an important role in the development of the DRC which is unique in design, organizational structure, and objectives. DRC, as a unit within SIS, will be able to draw support from SIS's computer and technical capability. The Turkish Demographic Survey (TDS) will cover the entire nation (differing in this important respect from the programs of the POPLABS) and will yield, almost immediately, both national and regional demographic data. TDS is designed to provide for recording vital events, and establishing a

mechanism for annual nation-wide surveys on demographically related subjects to be determined by Turkey's planners as important development planning needs are identified. The State Planning Organization's membership on DRC's supervisory body, the Board of Editors, will insure that national concerns are given adequate coverage. Over time the data generated by the surveys will be applied and incorporated into long-run statistical series. The operation is designed so that it may replace Turkey's quinquennial population census with a decimal year population census system if the GOT decides to revise its census regulations to permit this.

While the DRC will concentrate on developing demographic data needed by development planners, the DRC will experiment with new research methodology using various demographic data. (In doing so it will carry out functions similar to those of the POPLABS). One objective of this experimentation will be to develop improved methods of measuring population changes.

11/11/71
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A. Rationale

The passage of "Turkey's Law Concerning Population Planning" (Law No. 557) in April, 1965 by the Turkish Parliament reflected a major change from official pro-natalism to planned population growth. Since that time the Turkish Government has focused on family planning as an important factor in economic development and as a health measure. In Turkey's Second Five-Year Development Plan (1968-1972) the rate of population growth was cited as a factor which had exerted downward pressure on the country's total economic development by preventing attainment of a significant increase in per capita income despite increases in growing national income, and by slowing down the accumulation of savings needed for investment purposes. From the passage of the new law in 1965 to the writing of the Third Plan in 1972, Turkey has by law, by policy directives, and by national plans indicated that the country now has laid the policy groundwork essential for a long-term family planning and population program. However, while Turkey has established the basis for a national family planning effort, it has not yet developed action programs to fully implement this policy.

Reflecting the general concern over population growth seen in the attention being given to family planning, the Third Five-Year Plan (1973-1977), although it sets no specific, quantifiable national population targets and long-term goals, emphasizes more than the earlier plan the economic implications of too-rapid population growth. Comparisons are made with the demographic characteristics of the EEC countries whose growth rates are half or less as rapid as Turkey's and comparisons are made with dependency ratios within Turkey.

It is clear that accurate, extensive and timely analysis of demographic trends will be an important planning factor in determining how best to utilize limited resources in enabling Turkey to reduce its present high population growth rate and to plan for, arrive at, and maintain a stable population figure. The task of distributing scarce resources, if done efficiently, must depend on a continuing and accurate assessment of a wide range of interrelated factors. Sound development planning decisions are not feasible without current and precise data on population growth rates and the exact characteristics of the population, including population changes which necessarily affect all aspects of development. The cross-sectoral applicability of demographic data cannot be over-emphasized and deserves priority consideration in Turkey's development planning objectives. However, the methods of assessing population size and structure which are generally available to developing nations, such as Turkey do not always lend themselves to accurate measurement of population change, or to meaningful interpretation of changes that are recorded (See Exhibit A for a discussion of systems of demographic data collection which have a bearing on the Turkish picture.)

As summarized in Exhibit A, several alternative methods of assessing the characteristics of a population are known or are in the developmental stage.

These are:

- a. Natal Registration
- b. Periodic Sample Surveys
- c. Longitudinal Surveys
- d. Dual Record System

Of the various methods available for measuring population change, the dual record system appears to fit most closely to Turkey's present needs and to offer the greatest promise for adapting to planning needs a few years hence. It is most appropriate for Turkey since the data the dual record system generates are current, the data can be adapted to widely varying geographic and demographic conditions, and since the data are more accurate than other census methods. The size of the sample population can be varied according to the amount of resources available to the census organization and to the amount of information deemed adequate for short or long-term planning.

The State Planning Organization (SPO) the major Turkish planning authority, has had no mechanism through which to collect demographic data, other than the quinquennial population census and small ad hoc surveys which it has been able to conduct on its own. Because of this, the Third Five Year Development Plan for Turkey (1963-1977) relies heavily on data collected during the 1965 Population Census. The data reflect a lag of six years!

What is required then is a mechanism within the Turkish Government to employ appropriate techniques, initially the dual record system, to provide needed national demographic data on a continuing basis. Such data can be used by the Turkish Government in its planning and decision making processes. Given adequate data, the national planning body would then be, for the first time in its history, in a position to develop a meaningful national population policy which can be used as a guide for planning within the parameters dictated by population and resource projections. Such planning should lead to decisions relative to a reduction in growth rate. The goal then would be as noted in the following section.

B. Project Goal

1. Goal Statement

To reduce the population growth in Turkey to a rate comparable to that found in several of the European countries (0.4%) and to maintain the nation's population at a level consistent with its ability to provide the goods and services required to support and improve conditions of living for such a population.

Towards partial achievement of this goal the GOT is seeking AID financial support for the establishment of a Demographic Review Center in the State Institute of Statistics. Such support is to be on a decreasing scale over the first five years of the unit's existence. After the first three years of operation, and initial survey results will have been available for use by the State Planning Organization. USAID and the GOT principals will review progress to determine what, if any, changes in the structure are required to ensure viability. A description of the way in which the unit and the operational system are visualized as developing is covered in Exhibit B of this PROP.

In summary, the DRC will be established as a discrete operating and research office within the SIS, and reporting directly to the President (director) SIS, with its own field organization required for data collection, verification, and other tasks. The unit will be responsible for directing all activities of the program. DRC will be concerned solely with its own program, without responsibility for other regular, on-going statistical programs of SIS.

The primary purpose of the DRC will be to collect, collate and arrange for the publication of demographic data for use of planning institutions and policy makers and family planning/population program directors. Establishment of the DRC and SPO utilization of the data it generates will not in and of itself lead directly to a reduction of the population growth rate in Turkey. It must be accompanied by a wide variety of GOT activities which will contribute to this goal such as the nationwide provision of contraceptives, general motivation and training in family planning practices for couples of childbearing age, training of doctors, nurses and auxiliary personnel to provide family planning information and services, and general improvement in the overall economy and social assistance structure to reduce the pressure to have large families for protection of the elderly. The TDS should, however, play a significant role in the GOT's strategy to attain its population goal by providing current, accurate information on demographic characteristics and changes and by empirically demonstrating the problems of Turkey's population growth while showing positive changes which may result from the implementation of other family planning activities.

2. Indicators of Goal Achievement

- a. The Government of Turkey, through its component ministries and other relevant agencies, promulgates policies directed at influencing population growth and distribution to achieve the national target.
- b. The State Planning Organizations and the Ministry of Finance provide for full budgetary support for well-reasoned action programs proposed in consonance with the policies directed at influencing population growth and redistribution.

3. Assumptions Basic to Goal Achievement

- a. That the Government of Turkey possesses or can develop the capability of making planning projections on the population's ability to produce, or consume goods and services.
- b. That on the basis of reliable demographic data, the Government of Turkey will determine a reasonable population target which it would strive to reach and sustain.
- c. That the Government of Turkey will continue to place importance on fertility control as an essential component in achieving economic and social development.
- d. That the Government of Turkey possesses or can develop the capability of making meaningful assessments of the knowledge of, attitudes toward, and desire for various contraceptive techniques and devices so that fertility control training and commodities can be made available to desiring fertile couples.

C. Project Purpose

1. Purpose Statement

The purpose of this project is to support, within the structure of the Turkish Government, the development of an institutional capability through which can be obtained, collated and processed significant demographic data required for developmental planning. In the development of this capability, the DRC will support (a) design and testing of improved statistical methods for measuring population change; (b) collection of special types of substantive data on population as may be appropriate as a part of the DRC operation and (c) participation in related activities, such as analyzing Turkish demographic data as necessary for the purposes of SIS and other agencies of the Turkish Government participating in seminars and meetings with staff from related projects in other countries and the publishing of results. As noted earlier, the description of the DRC and of proposed operations is covered in Exhibit B of this PROP.

2. Conditions Expected at End of Project

- a. The Demographic Review Center is fully operational.
- b. That high quality demographic data are being generated on a timely basis through the dual-record system, modified as indicated as being necessary to meet the needs of the SIS, SPO, family planning and other planning and management groups and individuals. System will include:
 - establishment and operation of a nationwide sample survey system within DRC, capable of repeated studies on a regular basis;

- establishment and operation of a regular system of resident recorders;
 - establishment and operation of a matching system for combining information from the sample surveys and resident recorders;
 - establishment and regular operation of data analysis performed on data from the two systems, including tabulations and report writing;
 - provision for incorporation of associated research topics into the sample survey system; that is, periodic inclusion of topics of interest to SPO, SIS and other agencies.
- c. That demographic data generated through the DRC operation are being compiled, collated and published on a regular basis in a form or forms as required to meet needs of using agencies or personnel.
- d. That demographic data emanating from the DRC operation are being incorporated into the long-term statistical series of SIS.
- e. That the GCT provides full budgetary support for the DRC.
- f. That staff training and development programs are in place so that GOT will have the trained personnel to be able to sustain DRC and enable it to grow in terms of organization and staff capability.
3. Assumptions Basic to AID Support of Project
- a. That Turkish decision makers will follow through with their concern for having accurate demographic data for planning purposes by retaining their commitment to use data generated by the DRC.
 - b. That planning officials will advise DRC officials of the information needed for planning purposes.
 - c. That when more precise and timely data are available in Turkey, they will be utilized for better allocation and development of limited resources.
 - d. That over the long-run, establishment of the DRC will reduce the cost of collecting demographic data.
 - e. That DRC will cooperate with the Institute of Population Studies at Hacettepe University, with the State Planning Office, and with other research institutions and scientists in designing questionnaires, in analyzing data and preparing reports for publication so as to ensure a high degree of usefulness and technical excellence.

f. That the cross-sectoral applicability of demographic data will facilitate development decisions in all areas of economic and social planning, including but not limited to un- and under-employment, education, population/family planning, rural/urban migration, consumption patterns, nutrition status, housing and transportation.

D. Project Outputs

1. Expected Outputs

a. The dual record system design structure is refined and the system is operating and generating data. In order for the dual record system to be in place and operating, the following activities must be completed:

(1) Instruction manuals outlining the objectives and procedures of DRC operations, with particular regard to the dual record system and required survey forms and recording forms prepared.

(2) Survey teams, recorders, supervisors, quality control personnel trained, with technical assistance from UNC specialists as necessary.

(3) Supervisors selected from SIS staff and trained with UNC assistance. (During the field trial they will gain experience both as recorders and as members of survey teams.)

(4) DRC analysis capability augmented by training demographers, and data processing experts, and by conducting research on demographic methodology best suited to Turkey's needs. (As the need arises during the life of the project, DRC will benefit from the short-term consultant services of POPLAB experts. Training and staff development data are provided in Exhibit C.)

(5) Analysis of data collected is being assisted by the development of a factor of vital events missed by both sub-systems (Statistical tables showing crude and specific rates are being prepared periodically.)

b. In addition to data being collected by/for Turkish planners, selected data for purely research work are collected as required.

c. Data from the dual-record system are being incorporated into SIS's long-term statistical series.

2. Output Indicators

a. Upon completion of the field trials, the following:

(1) A firm method for selecting the sample for each of the five years chosen, e.g., either a new independent national sample each year or a concentration on different strata from

* ?

a national sample taken at the beginning of the project;

(2) A statistical equation derived for estimating the number of un-enumerated vital events; and,

(3) Firm determinations about use of the community contact vis a vis the house-to-house canvass technique in different areas of the country for gathering information regarding vital events.

b. Comprehensive instruction manuals and necessary forms and questionnaires completed and distributed to TDS personnel. (It is reported that manuals and forms required, in fact, have been completed in connection with the field trials.)

c. Required personnel selected and trained. Data on staff make-up of DRC are provided in chart II, Exhibit B to this PROP.

d. Data processing operational.

e. SIS receiving and responding positively to requests for inter-census demographic data.

f. Survey teams in place to conduct three household surveys each year; recorders in place to collect data concerning vital events on a continuing basis.

3. Assumptions Basic to Achievement of Outputs

a. That SIS has the staff and the technical capability and will in fact supply:

(1) Personnel in adequate numbers and capabilities to be trained as supervisors, to serve in administrative positions of DRC, and to prepare necessary documents; and

(2) Computer time and related technicians as required.

b. That the SIS is willing to apply new methodology in carrying out its functions.

E. Project Inputs

In general terms the inputs to the project are seen basically as being that the U.S. Government will make certain funds available over a span of five years; over the same five year period the Government of Turkey commits its own funds in increasing amounts to support the DRC (equal to \$101,000 in FY 1974 to \$163,000 in FY 1978). The increasing GOT inputs are to ensure that after termination of AID involvement, the staff and

facilities to maintain the DRC will be in place. In other words, as the U.S. Government reduces its support over the life of the project, beginning in the second year, the Government of Turkey, through the State Institute of Statistics, will fund an increasing proportion of the total cost of the project.

After the fifth year -- the final year of U.S. support -- the full cost of the DRC operation will be born by SIS. The total cost of establishing the DRC and its operation during the first five years (the years of joint financing) expressed in U.S. dollars, is \$1,591,361.00. The total budget through the five year life-of-project is shown in Annex A.

Conceptually, the total five-year budget of \$1,591,361 can be divided into four major segments: (1) Field Operations -- Consists mostly of salaries, travel costs and per diem for surveyors, recorders and supervisors, and accounts for just over 30 percent of the total. (2) SIS Central Operations -- Salaries of technicians and computer time, account for another 30 percent. (3) Technical assistance and training -- Expenditures for "backstop" costs, comprising about 30 percent of the total constitute most of this item. (4) Institutional Support -- the remaining 10 percent can be so characterized. (This last segment includes equipment, supplies and professional literature, which will benefit DRC in the first instance, but will also go to the SIS "general pool".)

With the beginning of the sixth year, after the DRC is fully staffed and operational, the approximate GOT budget for the DRC operation is projected at \$220,600. Details are shown in Annex B. The "budget", as estimated for the sixth year, basically provides for expenditures to support field and central operations; \$22,600 out of the total is earmarked for training, supplies and support equipment. This means that the GOT will be required to increase its input into the DRC by only slightly over one third of its fifth year input. As broken down by budget source, the inputs during the five year project life will be:

1. AID (See Annex C for cost details).

a. Field Operations will receive 41% of AID assistance. Most of this will be for travel and per diem for DRC personnel to perform field visits for conducting surveys, reporting and quality control functions. The remainder will provide training of survey teams and development of questionnaires.

b. Purchase of equipment and supplies will require 30% of USAID direct funded project costs during the first year. For subsequent years, funds will supply replacement parts. Of the funds budgeted for purchase of equipment, slightly under one-fourth is to purchase three (3) four-wheel drive vehicles for use by survey teams and recorders in Turkey's Eastern regions and Black Sea area. In Annex D the entire first year equipment budget picture is presented.

SIS presently has four field vehicles - two sedans and two jeeps. These vehicles, already assigned for use in the Western regions, should be able to provide sufficient and timely transportation for conducting DRC survey work in that area. SIS will assign these vehicles exclusively for use by supervisors and teams of surveyors during the April/October/April survey cycle. Weather and road conditions in the Black Sea and Eastern areas, however, demand more rugged vehicles. At present, SIS does not possess the type of vehicle required. It is planned that the three four-wheel drive vehicles, although adding to SIS's general stock of vehicles, will be assigned during the survey cycles to one or more of the more rugged areas. Each of the vehicles could be used on a coordinated schedule to give mobility to survey teams, supervisors and recorders within a fairly broad geographic area. This will help to insure that the survey work is not jeopardized because of a shortage of adequate transportation.

c. Domestic Training is intended to build up a pool of demographic expertise through support of a limited number of two-year fellowships to Hacettepe University. The number of personnel to be trained and their location within the DRC are described in more detail in Exhibits B and C.

d. Central Operations will cover salaries of translators and interpreters who will assist in the analysis process.

2. University of North Carolina - AID (See Annex E for Cost Details)

While UNC assistance will be provided for under a Task Order issued under AID Basic Agreement csd-2495, funding will be provided by USAID bilaterally under this Project. Activities to be funded under this component are:

a. International travel for consultants to and from Turkey and for DRC administrative personnel for travel outside Turkey.

b. Consultant fees as required.

c. International Training at the MA level for a limited number of DRC employees per year over the life of the project.

d. Central Operations include provisions of salaries for campus representatives and secretarial assistance.

e. Equipment and Supplies limited to items required for office use.

f. Other Costs cover fringe benefits, social security retirement, health insurance and contract services.

3. Government of Turkey/State Institute of Statistics (See Annex F for cost details.)
 - a. Salaries of Personnel and Cost of Computer Time.
 - b. Field Operations travel and per diem.
 - c. Replacement of Equipment and Supplies.

F. Course of Action

The time phased operational course of action as currently planned follows.

- October-December, 1973. Three month field trial. Completed -- financed by the Ford Foundation. This field trial was intended to test the design structure of the dual record system within the Turkish context and to further refine the assumptions and techniques to be used. Data collection activities, though delayed earlier, were largely completed by December 31, 1973.
- January, 1974. Editing, coding and loading on tape of field trial data; development of matching rules for the dual record procedures; tabulations; preparation of working papers based on field trial results.
- February, 1974. Continuation of activities begun in January; February 20-22 Seminar/meeting to perform final evaluation of field trial, preliminary evaluation and finalization of some questionnaire schedules having been performed at beginning of month. (See Exhibit D for Seminar Program).
- March, 1974. Recruitment and hiring of supervisory and interviewing staff; intensive training of field staff at all levels; provision of transportation equipment; final printing of remaining questionnaire schedules; carrying out of mapping operations.
- April, 1974. AID support begins and first nationwide sample survey operation undertaken; resident recorder program initiated.
- May-June, 1974. Editing, coding and loading on tape of data from sample survey; continuation of resident recorder program.
- July, 1974. Tabulations run, producing new national estimates of fertility and mortality; continued work with resident recorder program, regular processing of data yielded both by sample survey and resident recorders.
- August, 1974. Continuing analysis of data yielded both by sample survey and resident recorders.

- September-October, 1974. Second round of sample survey begins incorporating variable component -- international migration add-on survey. Resident recorder program continues.
- Activities continue in regular cycles thereafter. That is, a retrospective sample survey is begun each April and each October; resident recorder operations continue each year round; other operations are cycled as they occur; editing and coding in second and third month of cycle, tabulations and analysis beginning in fourth month, and so forth. The above course of action must be adhered to since delays much beyond the April 1974 date for the first nationwide survey will mean that the remaining work cycle cannot be completed in time to permit the second nationwide survey to start in September 1974. The September starting date is necessary since field work quite likely will not be possible after mid-October due to heavy snows. If this second cycle is not carried out the work schedule and time-phasing of the operation will be delayed.

The time-phasing is so critical that the SIS has indicated that if AID processing of the Project is delayed to the point that the time schedule cannot be met, given assurance that the AID funds ultimately will be forthcoming, the SIS will temporarily advance funds from reserves to cover the cost of the initial field work, with the SIS account to be repaid after Project funds become available.

ANNEX A

SUMMARY OF PROPOSED DRC BUDGET
(US Dollars)

Reference (Table)	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
1. USAID/TURKEY						
Central Operations	8,572	8,572	8,571	8,571	8,571	42,857
Field Operations	85,648	83,648	74,746	56,824	33,912	334,768
Consultant	13,000	13,000	13,000	13,000	13,000	65,000
Training (Domestic)	4,800	9,600	9,600	9,600	9,600	43,200
Equipment and Supplies (and Library)	93,095	10,000	9,000	8,000	7,000	127,095
Other	-	-	-	-	-	-
Total USAID	205,115	124,000	114,907	95,995	72,083	612,920
2. SIS						
Central Operations	91,353	93,596	94,010	95,839	96,253	471,051
Field Operations	10,000	12,000	20,912	38,824	61,736	143,472
Consultant	-	-	-	-	-	-
Training	-	-	-	-	-	-
Equipment and Supplies	-	2,000	3,000	4,000	5,000	14,000
Other	-	-	-	-	-	-
Total SIS	101,353	107,596	117,922	138,663	162,989	628,523
3. AID-UNC						
Central Operations	18,260	19,160	20,100	21,100	22,150	100,770
Field Operations	14,475	14,300	13,300	11,800	8,800	62,675
Consultant	9,000	8,000	7,000	5,000	4,000	33,000
Training	8,000	16,000	16,000	16,000	8,000	64,000
Equipment and Supplies	2,850	2,500	2,250	2,000	1,750	11,350
Other	14,653	14,462	15,473	16,266	17,125	78,123
Total UNC	67,238	74,602	74,087	72,166	61,825	349,918
TOTAL						
Central Operations	118,186	121,328	122,681	125,510	126,974	614,678
Field Operations	110,123	109,948	108,948	107,448	104,448	540,015
Consultant	22,000	21,000	20,000	18,000	17,000	98,000
Training	12,800	25,600	25,600	25,600	17,600	107,200
Equipment	95,945	14,500	14,250	14,000	13,750	152,445
Other	14,653	14,642	15,437	16,266	17,125	78,123
GRAND TOTAL	373,706	307,018	306,916	308,824	296,897	1,591,361

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ANNEX B

ESTIMATED GOVERNMENT OF TURKEY DRC BUDGET
SIXTH YEAR OF OPERATION
(LIRA COST EXPRESSED AS US DOLLARS)

ITEM	COST
Central Operation	\$103,500
Field Operation	95,500
Training (Domestic)	9,600
Equipment/Supplies	<u>12,000</u>
	\$220,600

ANNEX C
PROPOSED DRC BUDGET
AID COMPONENT
(US Dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
<u>Salaries</u>						
Translators and Interpreters (3)	8,572	8,572	8,571	8,571	8,571	42,857
<u>Consultants (Turkish)</u>						
Senior Project Consultant	5,000	5,000	5,000	5,000	5,000	25,000
Others - 8X5 m/m @ \$200	8,000	8,000	8,000	8,000	8,000	40,000
Sub-Total, Consultants	<u>13,000</u>	<u>13,000</u>	<u>13,000</u>	<u>13,000</u>	<u>13,000</u>	<u>65,000</u>
<u>Field Operations</u>						
<u>Recording</u>						
Salaries, Rural Recorders	11,143	11,143	11,143	11,143	11,143	55,715
Salaries, Cities & Towns	8,000	8,000	8,000	8,000	8,000	40,000
Salaries, Big City Recorders	6,857	6,857	6,857	6,857	6,857	34,285
Travel, Rural	7,132	7,132	7,132	7,132	7,132	35,660
Travel, Cities & Towns	3,771	3,771	3,771	3,771	3,771	18,855
Travel, Big Cities	1,886	1,886	1,886	1,886	1,886	9,430
Other Direct Expenses	571	571	571	571	571	2,855
Sub-Total, Recording	<u>39,360</u>	<u>39,360</u>	<u>39,360</u>	<u>39,360</u>	<u>39,360</u>	<u>196,800</u>
<u>Surveys</u>						
Survey Teams	41,316	41,316	41,316	41,316	41,316	206,580
Training of Surveyors	6,600	6,600	6,600	6,600	6,600	33,000
Quality Control	4,515	4,515	4,515	4,515	4,515	22,575
Questionnaires	3,857	3,857	3,857	3,857	3,857	19,285
Sub-Total, Surveys	<u>56,288</u>	<u>56,288</u>	<u>56,288</u>	<u>56,288</u>	<u>56,288</u>	<u>281,440</u>
<u>Other Direct Costs</u>						
Domestic Training (4 new starts each year)	4,800	9,600	9,600	9,600	9,600	43,200
<u>Equipment and Supplies</u>						
Equipment (per attached list)	76,095	5,000	5,000	5,000	5,000	96,095
Library and Supplies	17,000	5,000	4,000	3,000	2,000	31,000
Total	<u>215,115</u>	<u>136,830</u>	<u>135,819</u>	<u>134,819</u>	<u>133,819</u>	<u>756,392</u>
<u>Deduct, SIS Share of Field Operations</u>						
Total	<u>10,000</u>	<u>12,000</u>	<u>20,912</u>	<u>38,824</u>	<u>61,736</u>	<u>143,472</u>
	<u>205,115</u>	<u>124,820</u>	<u>114,907</u>	<u>95,995</u>	<u>72,083</u>	<u>612,920</u>

ANNEX D

COST ESTIMATES FOR MACHINERY AND EQUIPMENT

Equipment

	Qty	Unit Price	Extension
<u>I. Office</u>			
1. Copy Machine	1	\$1,200	\$1,200
2. Mimeograph	1	500	500
3. Typewriter and Special Characters	2	550	1,100
<u>II. Research and Statistical</u>			
1. Adding Machine	2	150	300
2. Electronic visual display calculator	5	525	2,625
3. (a) Electronic programmable printing calculator	2	1,850	3,700
(b) Card reader for item 3(a)	1	300	300
4. Keypunch	2	4,000	8,000
5. Electronic mini-computer facility for data analysis	1	6,000	6,000
6. Printing Multiplier	1	350	350
<u>III. Data Processing</u>			
1. Data Recorder	3	7,000	21,000
2. Magnetic Computer tapes	250	20	5,000
<u>IV. Field Operations and Training</u>			
1. Four-wheel jeep type vehicle	2	5,000	10,000
2. Four-wheel personnel vehicle	1	8,000	8,000
3. Tape recorders	5	100	500
4. Camera	1	220	220
5. Slide Projector	1	150	150
6. Overhead Projector	1	150	150
<u>V. Transformers and Voltage Regulators</u>			
			7,000
Equipment for Year 1		Sub-Total	\$76,095

Supplies

I. Continuous 5-part forms for 9400	50 cases	100	5,000
II. Spare parts for vehicles			3,000
III. Spares for electronic equipment			2,000
IV. Paper tape, films, chemicals, cassettes, and other supplies			2,000
V. Library books and documents			5,000
Supplies for Year 1		Sub-Total	\$17,000

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ANNEX E

PROPOSED DRC BUDGET
UNC/USAID COMPONENT
(US Dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
1. Equipment and Supplies	2,850	2,500	2,250	2,000	11,750	11,350
2. Training						
a) Domestic	-	-	-	-	-	-
b) International	8,000	16,000	16,000	16,000	8,000	64,000
Total, Training	8,000	16,000	16,000	16,000	16,000	64,000
3. Consultant	9,000	8,000	7,000	6,000	4,000	33,000
4. Field Operations						
a) Salaries and Honorarium	-	-	-	-	-	-
b) Travel and Per Diem	14,475	14,300	13,300	11,800	8,800	62,675
c) Other	-	-	-	-	-	-
Sub-Total	14,475	14,300	13,300	11,800	8,800	62,675
5. Central Operations						
a) Salaries	18,060	18,960	19,900	20,900	21,950	
b) Analysis	-	-	-	-	-	
c) Other	200	200	200	200	200	
Sub-Total	18,269	19,160	20,100	21,100	22,150	100,770
6. Other Costs						
a) Fringe Benefits	1,961	2,017	2,109	2,207	2,310	
b) Overhead and Contract Services	12,692	12,625	13,328	14,059	14,815	
Sub-Total	14,653	14,642	15,437	16,266	17,125	78,123
TOTAL	67,238	74,602	74,087	72,166	61,825	310,018

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ANNEX F

PROPOSED SIS DEMOGRAPHIC SURVEY UNIT
SIS COMPONENT
(US Dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
1. Equipment and Supplies (and Library)	-	2,000	3,000	4,000	5,000	14,000
2. Training						
a) Domestic	-	-	-	-	-	-
b) International	-	-	-	-	-	-
3. Consultants	-	-	-	-	-	-
4. Field Operations						
a) Salary and Honorarium	9,000	10,000	17,912	34,824	56,736	128,472
b) Travel and Per Diem	-	-	-	-	-	-
c) Other	1,000	2,000	3,000	4,000	5,000	15,000
Total	10,000	12,000	20,912	38,824	61,736	143,472
5. Central Operations						
a) Salaries	62,553	64,796	65,210	67,039	67,453	327,051
b) Analysis	28,800	28,800	25,500	28,200	28,200	144,000
c) Other	-	-	-	-	-	-
Total	91,353	93,596	94,010	95,839	96,253	471,051
6. Other Costs						
a) Fringe Benefits	-	-	-	-	-	-
b) Overhead and Contract Services	-	-	-	-	-	-
TOTAL	101,353	107,596	117,922	138,663	162,989	628,523

ANNEX G
PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

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Life of Project: From FY 1974 to FY 1978

Total U. S. Funding \$1,531,351

Date Prepared:

Project Title & Number: TURKISH DEMOGRAPHIC SURVEY 277-11-570-606

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To reduce the birth rate in Turkey to a rate comparable to those of the European Economic Community and to maintain the nation's population at a level consistent with its ability to provide the goods and services required to support and improve conditions of living for such a population.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1. Reduction of Turkey's birth rate to a figure equal to the average of those found in the EEC. 2. Turkey's leading decision-makers request, are provided with, and utilize for planning purposes, data which reflects trends in demographic change. 3. The GOT uses data to determine a reasonable population target which it would reach and sustain. 	<ol style="list-style-type: none"> 1. Comparison of demographic data for Turkey and the EEC countries. 2. The Government of Turkey determines a reasonable population target which it supports and sustains. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. The GOT will continue to place importance on fertility control as an essential component in achieving economic and social development. 2. The cross-sectoral applicability of demographic data will facilitate development decisions in all areas of economic and social planning.
<p>Project Purpose:</p> <p>To establish within the State Institute of Statistics a Turkish Demographic Survey unit which will facilitate development and application in Turkey of reliable methods of measuring and analyzing population change to improve the accuracy and timeliness of Turkey's demographic data.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. TDS established and operating within SIS. 2. TDS methodology incorporated into SIS's regular long-term statistical series. 3. Budget for operation of TDS unit provided from GOT funds through SIS's general budget. 	<ol style="list-style-type: none"> 1. SIS publishes data collected and analyzed by TDS unit. 2. Observation of methodology in use at SIS. 3. Observation of Turkish Budget Law confirming that the General Directorate of the Budget has entered a line item for TDS in SIS's approved budget. 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Demographic data collected by the TDS will be made available to Turkish development planners, as required. 2. When more precise and timely data are available in Turkey, they will be utilized for better allocation and development of limited resources. 3. Establishment of TDS in long-run will reduce the cost of collecting demographic data and thus have a favorable impact on total economic development.
<p>Outputs:</p> <ol style="list-style-type: none"> 1. A three-month field trial (financed by Ford Foundation). 2. Questionnaires, recording forms, instruction manuals, census maps, household registers and structure lists will be prepared. 3. Supervisors, recorders, survey teams and quality control specialists will be selected and trained. 4. Data processing experts and demographers will be trained. 5. Data will be collected, analyzed and published. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. Sample selection methods, recorder techniques & matching factor tested. 2. 6 questionnaires (1 cycle); 203 (each) forms and manuals, 152 census maps; 11,000 household registers and structure lists. 3. 10 supervisors, 113 recorders, 80 surveyors and 10 quality specialists. 4. 16 local MA's, 4 US-trained experts. 5. Twice-yearly statistical tables and annual series published. 	<ol style="list-style-type: none"> 1. Project design theory tested and ready for implementation 2. Observation. Forms, manuals, maps, registers and lists are available. 3. Training performed. 4. Training performed and MA's obtained where applicable 5. Data has been collected, analyzed and available in published form. 	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> 1. Required personnel available. 2. Transportation available. 3. Funds available for training.
<p>Inputs:</p> <p>USAID:</p> <ol style="list-style-type: none"> 1. Domestic travel and per diem. 2. Local salaries 3. Training 4. Equipment and supplies <p>AID/UNC:</p> <ol style="list-style-type: none"> 1. International travel. 2. Consultant fees and salaries. 3. International training <p>SIS:</p> <ol style="list-style-type: none"> 1. Salaries and per diem. 2. Computer time 	<p>Implementation Target (Type and Quantity)</p> <ol style="list-style-type: none"> 1. As required for TDS personnel 2. 3 translators and interpreters 3. For recorders and survey teams 4. For field use (See Annex B) 5. Campus rep, 2 round trips; consultant, 4 round trips; 60 IM salaries. 6. 4 candidates selected, travel US 7. 19 technical and admin personnel. 8. 50 hours per year, \$320 @ hour. 	<ol style="list-style-type: none"> 1. Tickets issued; travel vouchers done. 2. Employees hired and on-board. 3. Personnel selected, trained and operating; equipment purchased, delivered and operating. 4. Consultant contract drawn up and signed. 5. Tickets issued. 6. Personnel hired and in place 7. Demographic data published. 	<p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> 1. Funds available to all three budget segments. 2. SIS computer facilities and expertise available.

EXHIBIT A

Measuring Population Change

Collection of demographic data is a complex, time-consuming and expensive operation. The most commonly used method of collecting demographic data is the population census. The population census is usually conducted over the entire populace at regular intervals. In Turkey a census is taken every five years; in some countries every ten. In some countries there is no set interval for the taking of a census. There can be minor variations of the techniques employed, but since a conventional population census is extremely expensive to conduct, it does not lend itself to frequent replication or, therefore, to supplying current data.

In Turkey, the Quinquennial Population Census is the prime source of demographic data. These censuses have been conducted by the SIS on a de facto basis in years ending in zero and five. Turkey's population censuses produce single round, broadbased, multipurpose documents which have only limited utility as a source of detailed demographic data. Each population census is estimated to cost Turkey around \$1.0 million (14,000,000 TL). Generally from two to three years are required to process and publish the data, by which time much of its usefulness for planning purposes is lost. The cost of the population census is expected to increase as the availability of unpaid volunteers (usually university students) decreases; it has become increasingly difficult to obtain unpaid volunteers to collect census data.

Differing from a Census, a second method of assessing characteristics of a population is Civil Registration. However, Civil Registration as carried out in most areas, is primarily for legal purposes and may include a number of factors which lead to gross inaccuracy for population assessment. For example, the legal requirement to register births usually carries with it the burden of a registration fee as each new child is registered. This may inject a downward bias. Of course, this bias may be offset by a more favorable tax posture as more dependents are claimed, but only if a person is subject to substantial income taxes. Since most agricultural residents (a clear majority of the labor force) in Turkey may not pay substantial income taxes they may find avoidance of the registration -- often a cash fee -- more attractive. Even more important, since the tax deduction for additional dependents is not significant in Turkish tax structure and in any event, not applicable to the majority of the populace, there is no real incentive to register newly born children. In cases where it is difficult to report deaths (because of the physical problem of travel) or where fees may be extracted from the person registering other vital events, there may also be a negative incentive. The system of civil registration suffers from these and other administrative deficiencies and is, therefore, an inefficient mechanism for collecting demographic data.

More sophisticated methods of measuring and analyzing population are in varying stages of development. One such method is to conduct periodic surveys over a representative sample of the population. The survey can

include information on some of the factors related to population change and thus offers greater flexibility than do either the population census or civil registration system.

Yet another embellishment to the occasional single-occurrence survey is the addition of longitude. A group - or panel - is identified and periodic surveys are conducted over time, thus adding longitude and depth to the data collected. Generally, in both the single occurrence survey and in the longitudinal one the questions asked are retrospective in nature and, because of this may be subject to some loss of accuracy due to the inability (or unwillingness) of the respondent to recall events completely. Moreover, the longitudinal survey may have the added drawback of respondent fatigue as a result of the frequency of exposure to probing questions and numerous enumerators. Despite the possible drawbacks, however, the increased flexibility of the data collected through use of survey questionnaires offers greater possibilities for analyzing population changes. Still, even more complex demographic methodology is necessary if developing countries are to keep abreast of the many population changes which create barriers that must be faced and overcome if development is to occur.

A method of measuring population change and related factors which, although still in the developmental stage, represents a major breakthrough in demographic statistical methodology, is the so-called dual record system. The dual record system is based on representative geographic samples. Each geographic sample of the system consists of a vital events record and a retrospective survey record. The vital events record is compiled as each vital event occurs or close to the occurrence of each vital event in the area. This is a source of current data, the components of which are continuously updated as a birth, death, marriage or other vital event occurs. The second record -- a retrospective survey -- is compiled near the end of a reporting period and is designed to collect data, from a different perspective, from the same geographic area. The retrospective survey is conducted periodically through a sequence of independent household interview surveys.

It is important that the data collected for each of the two records be totally independent of each other since the accuracy of the method for measuring total population depends on a matching of the two records, some will be missed by both, and others will be reported by only one of the records covering the same geographic area. If the two records are independent of each other, matching the information collected by each can yield a mathematical factor of the events missed by both techniques. This "matching factor", under certain assumptions made about an area, can adjust both systems to produce an accurate estimate of total births and deaths.

The flexibility of the dual record system makes it a very powerful development planning tool. The vital event record is purely a statistical schedule which can provide data for at least two important uses. First, it compiles a current record of each vital event occurring in a geographic area which

can be matched with an independent survey record covering the same area and which may (probably will) include the same vital events. Second, through its combined longitudinal and retrospective capability, it can collect basic (denominator) data necessary for computing specific vital rates. A third useful planning device is the variable survey mechanism. It establishes a permanent conduit through which a planner can conduct a survey of any aspect of demography without having to change the survey format.

EXHIBIT B

Organization and Operational Plan Demographic Review Center (DRC)

I. Organization and Unit and Staff Development

A. Organization

The DRC will be established as an operating and research center within the State Institute of Statistics, with the field organization required for data collection, verification, and other tasks. The DRC will be established at a high organizational level within the SIS directly responsible to the President (director) of SIS. (See Chart I) The unit will be responsible for directing all activities of the program. DRC will be concerned solely with its own program, without responsibility for other regular, on-going statistical programs of SIS.

The primary purpose of the DRC will be to collect, collate and arrange for the publication of demographic data for use of planning institutions and policy makers. In so doing, the DRC will among other things, design specific survey methodologies and procedures for carrying out experimental studies on measurement of population change and other demographic factors, and for analyzing survey results so that each experience can lead to improvement of techniques and broadening of the subject fields to be covered. It will also engage in a continuing comprehensive study and evaluation of data collection methodology which has been applied in other countries with the objective of utilizing this knowledge in the design of studies to be undertaken by the DRC in Turkey.

For its part, SIS will be responsible for the control and testing of every phase of programs in progress, and for overseeing all publications of detailed reports and scientific papers. A Board of Editors, which will include outstanding experts in this field from the SIS, SPO, universities and other institutions will be established to review reports and to make recommendations to the President of SIS concerning their publication.

The DRC will be headed by the President of SIS as Director assisted by three Assistant Directors and will be staffed with the best professional and technical personnel that can be attracted to the program. Qualifications for these positions will emphasize the potential capacity of each staff member to carry out the methodological, operational and analytical activities of the program. The qualifications of personnel at the middle and upper professional ranks would be the PhD (e.g. demographers) and at the lower ranks it would be M.A. (e.g. research assistants). The unit will also serve as a training ground for technicians specializing in demographic research.

TMS

The attached chart (Chart II) indicates the planned organization and staffing plan for the central office and field organization:

B. Unit and Staff Development

An important objective of establishing a demographic unit within SIS is to insure that Turkey has a pool of qualified personnel, on a continuing basis, to perform the necessary analytical functions once reliable demographic data is available. SIS - and indeed Turkey - is fortunate in that it has capable technicians in many statistical areas. Past AID funds have provided for training in a wide range of fields of study, including statistical quality control, census mapping techniques, sampling, demographic analysis and population statistics. SIS has committed itself to support the staff for limited non-degree study and consultation abroad. Demographic expertise sufficient to support an expanded demographic unit, however, is not yet in existence, and there are deficiencies in certain critical areas.

Demography is a relatively new field of concentration and subsequently, it is extremely difficult -- for any country -- to find adequate personnel with the desired training and experience. SIS has two persons presently studying demography in the United States at the PhD level. These two persons are expected to play an important part in the DNC, but more persons, probably at the MA level will be required as the DNC operations are broadened.

In seeking ways to insure future qualified personnel SIS has begun formal contact with Hacettepe, one of Turkey's leading universities. The Hacettepe Institute of Population Studies offers a two-year MA program in demography, the only such degree offered in Turkey. SIS has agreed each year to select four promising persons to receive fully-funded training fellowships in population studies at Hacettepe. Successful graduates will be assured full employment in regular cadre positions with the TDS unit of SIS. This will gradually strengthen SIS's capability in demography and may help to form professional ties on a continuing basis with Hacettepe University.

While strong in some areas of computer technology, SIS does not yet possess an in-house capability to handle many of the demands for computer knowledge that will arise due to use of complicated demographic methodology. In 1968 SIS invested some \$945,000 in a computer complex (installation completed in 1970) which include 237 professionals (23%) trained in many disciplines. It has adequate numbers of technicians who are well versed in operating the UNIVAC 9400 and in survey and sampling techniques. SIS is also building up its Data Processing unit, but it simply does not have adequate expertise in this area at present. For example, computation and application of a reasonable matching factor may require the expertise of a good computer systems analyst. This is an area in which UNC will be expected to provide,

temporarily, the required assistance. With an eye to future planning, SIS will need to build up its own internal software capability.

While the organizational structure and staffing for the DRC currently are projected as shown in Chart II, noted above, the Director of the DRC and his senior staff have pointed out that, as with any new organization, operational experience may indicate the need for modification. Therefore, the personnel assignments (and organizational plan) may depart somewhat from the projections. The senior staff are aware of the need to provide extra supervisory surveillance to ensure that changes in fact are both required and promptly effected. They also point out that planned staff totals and training projections are to some degree notional but in general funding is in the correct order of magnitude to meet foreseen needs.

II. Operational Plan

As the first step in achieving its goal of ensuring the use of the demographic statistics, as presently visualized, the DRC will establish a dual record system which basically involves the use of two sub-systems to collect data from a representative national sample of households. The total number of households will be approximately 11,000, randomly selected from a national sample of 152 sample areas (clusters) for each of the five years of AID support. A cluster will compose the geographic area from which data will be collected. Clusters need not necessarily coincide with existing political boundaries, but rather will be determined solely by the number of qualifying households in the area. A new sample will be chosen each year in one of two ways: (1) an independent national sample of 152 clusters will be selected, or (2) 152 clusters will be selected once and divided into five strata. Then each year one strata within the cluster, one-fifth of the cluster, would be singled out for enumeration. Thus, the sample points for the total five year project will be determined from the outset allowing greater ease for mapping and transportation logistics. A pilot -- field trial -- will be held prior to beginning full operation of the TDS and a firm decision will be reached regarding selection of a national sample.

The two sub-systems will collect data on a one year cycle. Sub-system "A" will employ recorders to collect data as vital events occur. The sub-system will operate continuously through the year, using a combination of the community contact technique of gathering information and the house to house canvas method. The recorders will have each entry verified by a supervisor in the field. Again, the field trial will help to determine whether in certain areas the recorders must make periodic, rather rigidly scheduled visits spread over his entire area of responsibility, or whether communications will be sufficient to allow the recorder to make a visit when the vital event has occurred.

Sub-system "B" will consist of survey teams. Through use of interviews, the survey teams will collect retrospective data on vital events, and information related to population structure and characteristics. The survey teams will conduct household surveys three times during the year and submit a sample of the data collected to a thorough quality control check. Sub-system "A" will be totally independent of sub-system "B", and will not duplicate household registrations or other functions of sub-system "B".

At the beginning of a cycle (the first visit during a given year) the survey team will prepare detailed maps carefully delineating the boundaries of the cluster. The maps will list all physical structures within the cluster which would be inhabited by a household. The teams will visit each of these structures and prepare separate registers of households and residents. These documents will then be given to the recorders for verification. This procedure is to insure that the two sub-systems are using the same sample for matching purposes. The recorder, if the situation warrants, may within one month of receiving the documents, submit corrections. The corrections, when verified by the recorder's supervisor, are entered on the survey team's record and then become the official base document for the cycle. There is no further exchange of information or other contact between the two sub-systems. At six-month intervals, the survey teams up-date the base documents as required, deleting (or adding) entire households if necessary. Intervals of six months will insure that all residents are included in at least one survey during a cycle since a six months residency requirement will determine whether members of a household are enumerated.

A great deal of study still must be devoted to deriving an accurate matching factor which will permit an accurate projection of events missed by both systems. It is expected that findings during the preliminary field trials will help to derive an accurate procedure. Until reliable information exists suggesting otherwise, data regarding vital events collected from each of the two sub-systems will be matched at the end of six months for each cluster. At the end of twelve months, they will again be matched and a schedule of total end-of-year of corrected household registers, population denominators by age and sex will be prepared so that age-specific birth and death rates can be prepared.

The longitudinal part of the survey will ask the same questions for each visit during each cycle. This "fixed component" will allow comparison of data through time, and also for comparison of responses of different strata within a cluster. It is this portion of the survey which will be matched with the vital event record and which will provide denominator data for specific rates and crude data for preparation of annual event rates based on averages made after each reporting period. The variable component, on the other hand, can be made to fit a planner's more immediate or non-recurring needs. It may serve to raise questions regarding an almost unlimited range of issues requiring demographic data.

EXHIBIT C

THE TRAINING COMPONENT FOR THE TURKISH DEMOGRAPHIC SURVEY

A. Introduction

The Demographic Research Center (DRC), in conducting the Turkish Demographic Survey (TDS), is charged with improving the collection, analysis and use of demographic data in Turkey. To carry out this charge, trained personnel are needed for (1) field operations, (2) data collection and processing, and (3) report writing that embodies analytical demography and publication skills. To supply this need, training activities will be carried on, both within and without the confines of the DRC. Training for the field operations (1) is a recurring activity of a relatively short duration and will be conducted internally by the DRC staff. Training for data collection and processing (2) and for report writing (3) will be of longer duration, and will occupy the full time of the personnel to be trained, will be largely external to DRC, and will be conducted through both domestic and foreign training institutions. To meet this mix of training needs, the DRC proposal includes three distinct training budget items. The rationale for these expenditures is discussed below.

B. Field Staff Training

In the DRC plan, field operations include two types of personnel, namely interviewers and recorders. The interviewers who collect data at six month intervals are employed for a three-week period. Included in this three week period are the training sessions that equip the interviewers to carry out their task. Since the job of the interviewer is not permanent, interviewers are freshly recruited and trained every six months. Recorders work throughout the year in the geographic area of the survey, but since the sample areas will change each year, new recorders will be employed and trained annually. In the AID component of the budget (PROP - Annex C), the sum of \$6,600 is budgeted annually to provide training for 100 interviewers per survey, and 177 recorders per year. In the budget this item is entitled "Training of Surveyors".

C. Domestic Training

Domestic training will be provided for staff responsible for the design and operation of the data collection system (activity (2) Section A above) and for report writing and analysis (activity (3), Section A above). DRC trained personnel will work within the ERC central operations unit in positions detailed in chart II of Exhibit B. Training for work in these areas is most efficiently conducted on a full time basis by highly qualified teaching staff who have attained the PhD degree. Turkey is

fortunate in having available through Hacettepe University a number of such qualified and experienced instructors.

Included in the AID/Turkey component of the budget (PROP - Annex C) under "Domestic Training" is the sum of \$43,200 for the five-year period. This amount would provide for 36 man-years for training at \$1200 per man year. In order to obtain the maximum return on this training expenditure, a special one-year non-degree course of study is being organized through Hacettepe University. It will concentrate on the subject matter that is especially significant for the DRC. The three basic elements of study included in this full-time course are demography, statistical analysis, and survey design and data collection. Highly qualified instructional staff, consisting of faculty at the PhD level, will work closely with the selected DRC students to ensure that they develop the requisite skills in the three study areas. At the end of the five year period a minimum of 20 employees of the DRC (allowing for normal attrition) will have received training in the specialized skills that will be needed to maintain the continuity of the organization.

D. International Training (Not necessarily leading to a degree)

The analysis and interpretation of demographic data along with the preparation of this data in a publishable form so that it can be used by planning institutions, policy makers and administrators, requires advanced education and experience that is not presently available in Turkey. Accordingly, in the UNC/USAID component of the budget (Prop - Annex E) under "International Training" the sum of \$64,000 for the five-year period is included. This amount would provide for 8 man-years of training under the UNC contract at \$8,000 per man-year. To be eligible for this training an employee of the DRC would normally be a graduate of the course outlined in Section C above, or have received the educational equivalent of this study through another program. One half of the budgeted amount (\$32,000 in this category) will be used to provide for two years of graduate study for each of two employees of the DRC (four man-years at \$8,000 per year). One employee will undertake advanced training to prepare him as a sampling specialist and the other as a statistical demographer.

The other half of the budgeted amount (\$32,000) will be used to provide four man-years of participant and apprenticeship training designed to broaden the experience of a select group of DRC employees. This apprenticeship training will resemble a "reverse" USAID University Overseas Population Intern Program known at UNC Chapel Hill as the Frederikson Intern Program. Arrangements will be made with institutions abroad that are in a position to provide learning experience that will be most helpful to the selected DRC employees. Such learning experience will be sought in one of the established POPLABS, in an educational institution, or in a multi-national agency such as the World Fertility

Survey. A tailor-made work-experience program will be arranged for the DRC employee who will be made available at no cost to the institution or agency providing the experience.

Two man-years of training will be utilized to assign staff who will be concerned with data collection and management for periods of six months to one year in suitable training situations abroad. Another two man-years will be utilized to assign two persons for one year each as apprentices to gain experience in demographic analysis and report writing. Arrangements for all placements will be co-ordinated through UNC.



DEMOGRAPHIC
RESEARCH CENTER

**SEMINAR ON THE DESIGN
OF THE TURKISH
DEMOGRAPHIC SURVEY**

D.I.E. CONFERENCE ROOM
FEBRUARY 20 - 22, 1974 - ANKARA

PROGRAM

Wednesday, February 20, 1974

9:30 — 12:30 A.M.

- Opening Speech by the State Minister
- Introductory Speech by the President of the State Institute of Statistics, Mr. Yaşar Yaşar
- The Purpose and Design of the Turkish Demographic Survey and the Recording System (Mr. Yaşar Yaşar)

BREAK

Discussion of Mr. Yaşar's paper

14:00 — 16:30 P.M.

- Planning and Implementation of the Field Trial and Evaluation of the Results (Mr. Yalçın Şahinkaya)
- Explanation of Forms and Instructions to be Used in the National Survey (Mrs. Emine Bulutay - Mr. Tevfik Çavdar)

BREAK

Discussion of the two afternoon papers

Thursday, February 21, 1974

9:30 — 12:30 A.M.

- Matching Rules (Mr. Yaşar Yeşilçay)
- House to House Visits versus Community Contacts as a Recording System (Mr. Yaşar Yeşilçay)

BREAK

Discussion of Mr. Yeşilçay's papers

14:00 — 16:30 P.M.

- Comparison of Responses Given by Women Themselves versus Those Given by Other Persons (Miss. İsmet Tüyyan - Tevfik Çavdar)

BREAK

Discussion of Miss. Tüyyan's paper

- «Proposals Related to the Socio-Economic Coverage of the Turkish Demographic Survey»
- Discussion among experts from the State Planning Organization, the State Institute of Statistics, and various universities

Friday, February 22, 1974

9:30 — 12:30 A.M.

- Sampling Plan (Mr. Tevfik Çavdar)

BREAK

Discussion of Mr. Çavdar's paper

14:00 — 16:30 P.M.

- Planning of the National Survey (Mr. Yalçın Şahinkaya)

BREAK

- Demographic Estimates from the Base Line Survey (Mrs. Emine Bulutay - Mr. Arjun Adlakha)

Discussion of the two afternoon papers

Adjournment of the Conference

CHART II
ANNEX B

TURKISH DEMOGRAPHIC SURVEY CENTER
ORGANIZATION CHART

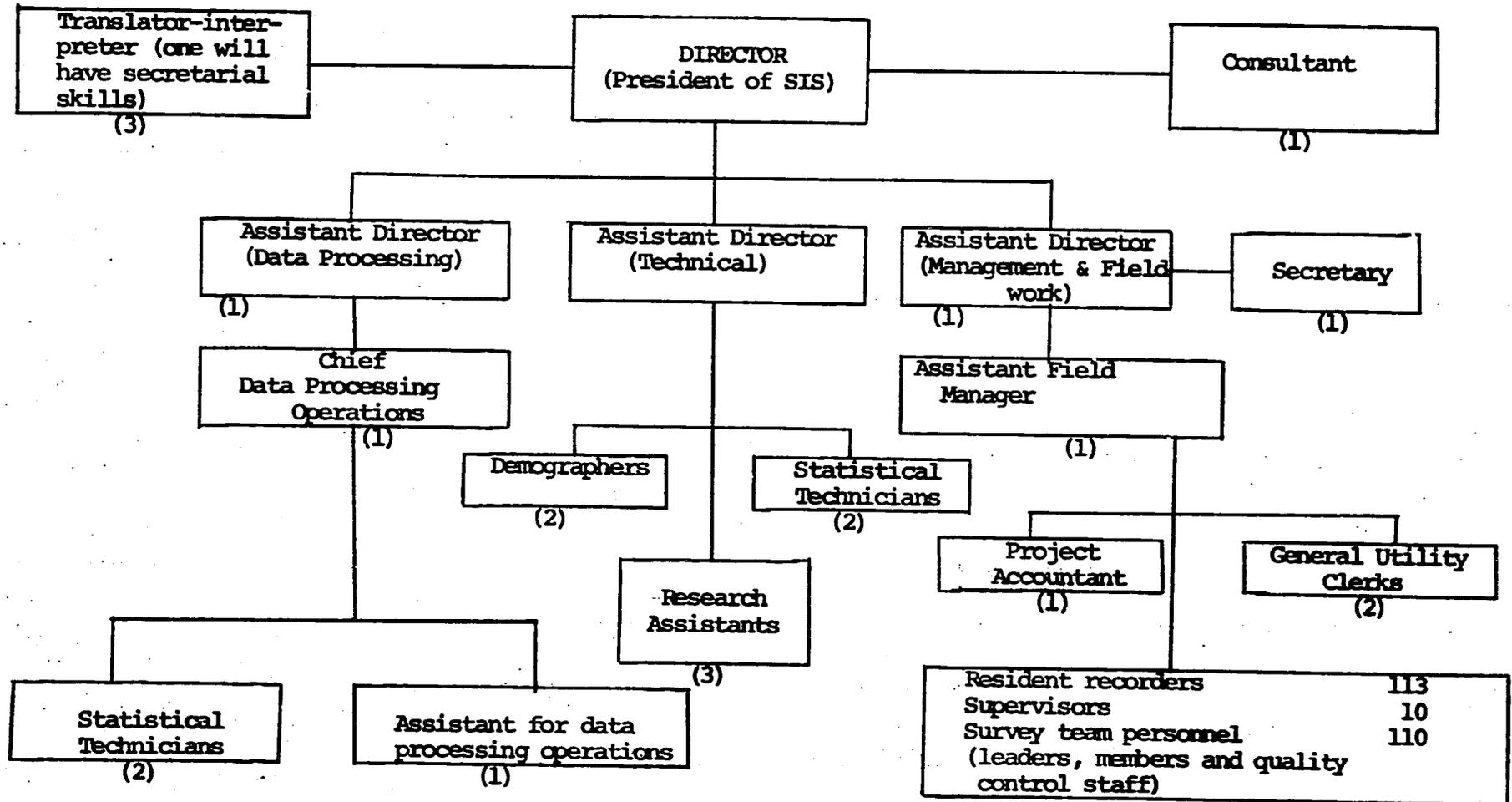


CHART I
 ANNEKOB
 EXHIBIT "B"

ORGANISATION CHART OF THE STATE INSTITUTE OF STATISTICS, TURKEY

