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TO THE
AGENCY FOR INTERNATIONAL DEVELOPMENT
ON THE
INSTITUTIONAL SUPPORT GRANT 211(d)
TO THE
CAROLINA POPULATION CENTER
THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL

October 15, 1972

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Title: Institutional Support Grant 211(d)

Grantee: The Carolina Population Center
The University of North Carolina at Chapel Hill

Director: Moye W. Freymann, M.D., Dr.P.H.

I. STATISTICAL SUMMARY

Period of Grant: 1968 to 1973		
Expenditures for Report Year: \$514,612	Amount of Grant: \$2.4 million	
Anticipated for next year: \$335,016	Accumulated: \$2,064,984	

II. NARRATIVE SUMMARY

The Carolina Population Center of the University of North Carolina was established to build a multidisciplinary program of research, education and service in the field of population and family planning, especially oriented to international assistance. This report is for the fourth year of 211(d) grant support.

The Center's basic structure includes three main service units: the International Programs Office serves as an immediate point of planning and coordination for overseas projects; the Academic Programs Office develops and coordinates campus-based teaching and research activities; and the U.S. Programs Office maintains access to the Center's own "field laboratory" situations in the southeastern U.S. The Center has mobilized involvement in the international population field among departments representing 18 different disciplines, and it now serves a group of over 150 Associates of the Center from this and nearby institutions. Its population library service has pioneered in developing new methods and providing worldwide assistance on technical information management. The Center's publications now include 23 monographs and special reports, many now in wide demand, and numerous individual staff papers.

Advanced training in the population field has especially focused on LDC and internationally oriented U.S. mid-career types. Of some 200 so far receiving graduate degrees, half are now working in developing countries. During 1971-72, 140 graduate students in different disciplines were specializing in population studies. They utilize over 40 population courses. Annually the Center also serves about 120 short-term visitors and trainees, and arranges five to ten conferences or workshops on special problems. The Center is especially concerned with development of innovative training materials and methods, including field experiences, case studies, simulations and self-instructional materials.

Research activities include work in basic reproduction biology and intensive clinical studies on new contraceptive methods, linked with a global network of overseas collaborators. Demographic research includes development of

collaborative "laboratories for population statistics", located around the world, working to improve basic population data and its use for program and policy planning. Pioneering research is underway on the psychology of fertility and in family-level studies. Economic and political research efforts are seeking to clarify basic issues in population policy, and to facilitate policy processes through an international consortium arrangement. Management and manpower studies focus on operational problems of population planning and implementation.

Field program relationships overseas now include continuing collaborative work with various agencies and institutions in Thailand, India, Iran, Egypt, Ghana, Morocco, Kenya, Nigeria, Colombia, Venezuela, and Brazil. Other project activities also involve Chile, Haiti, Korea, Pakistan, the Philippines, and Taiwan. Direct services are provided to AID as needed, and to IPPF and other international agencies. In the past year demands for help have been heavy from United Nations bodies, and the Center has especially assisted the United Nations Fund for Population Activities.

The 211(d) investment here so far has been extremely productive. During 1972-73 the expected remaining 211(d) funding of \$335,000 will represent about 7% of the Center's total population program expenditures. The new University Services Agreement with AID will enable the Center now further to strengthen greatly its specific capacities for new project development and for project implementation overseas. However, costs of building and maintaining certain other essential capacities are still financially uncovered after the next year: for training programs, building innovative research on new aspects of population problems, and further development of staff depth in different aspects of the international population field. It was earlier expected that Federal domestic funds for training and for population research centers support would by now be helping to support such aspects, but for the present they instead have receded. Private foundation and other sources are also very limited.

World population problems will worsen over a long period ahead and will call for the strongest possible basic institutional supporting activities. AID's initial investment in long-term institutional development here must relate to this context. Within another five years the Center's basic structure and capacities should be stabilized and self-sustaining, but they are not yet at that point. Now, continuation of a relatively small amount of 211(d)-type support for this Center for the next five years is crucial for maintenance of present momentum and for fruition of the Center's future contributions to the U.S. government and world population efforts.

III. DETAILED REPORT

A. Background and Objectives

The Carolina Population Center of the University of North Carolina has the task of developing and coordinating a University-wide, multidisciplinary program of research, education and service in the field of population dynamics and family planning. The Agency for International Development in 1968 provided a grant to the Center of \$2.4 million for a five-year period, in order to intensify this program on a scale more appropriate to the seriousness of world population problems. This report is for the fourth year of the grant.

The objectives of this assistance were stated to be "to build the strongest possible multidisciplinary competence for research, training, and service in the population and family planning field.... The ultimate objective will be to generate important new sources of technical knowledge, expert personnel, training capacities, and consultative support for the U.S. Agency for International Development, in its international assistance in the population and family planning field." The scope of work was stated to "involve further strengthening of the basic organizational structure of the multidisciplinary university population program at North Carolina, through augmentation of faculty strength for certain disciplines essential to the program, and through provision for space and material needs that are required for a major expansion of its services."

B. Accomplishments

AID's institutional grant has continued this year to be the primary basis for the growth of the Carolina Population Center. Without such core support, the program would have had to remain at a much lower level of activity and would have had to be less experimental and innovative. The AID assistance has not only augmented directly the competence of the Center but has also had important "multiplier" effects, through helping to initiate new activities which have then attracted separate support. The accomplishments of the Center which are directly attributable to the 211(d) grant therefore go far beyond that which can be gauged from a simple account of grant expenditures. Though the narrative below notes especially those aspects most directly stimulated by the AID funds, in fact virtually every aspect of the program has benefited. More details on the AID grant expenditures in FY 72 are presented in Section IV.

1. Organization: Center administration has continued to be developed along the lines covered in our last report. Dr. Thomas Hall and Dr. Hans Krusa continue in their roles as Deputy Director of the Center and Deputy Director for Administration, respectively. Dr. Anderson continues to head the International Programs Office, while Dr. Kirk Mosley heads the U.S. Programs Office, and Dr. Vaida Thompson serves as Deputy Director of the Academic Programs Office, concerned with on-campus teaching and research. Publications and development activities have been combined under Mr. Winfield Best.

Overall relationships and links with the University have been strengthened by development of a new Policy Board for the Center, which includes the Vice

Chancellors for Health Sciences and the Graduate School, the Provost, Dean of Research Administration, and Deans of the Schools of Public Health, Social Work and Medicine, Chairman of the Faculty, two other concerned faculty members, and the Center's Director.

The designation of Associates of the Center has been further regularized to include those on the Chapel Hill campus and professionals at nearby institutions who are concerned with some aspect of population/family planning activities. They are served by the Center and constitute a reservoir of talent and participation in various activities. They represent 37 Departments, Schools, Centers or Institutes at UNC, 14 other institutions of higher education in North Carolina, two North Carolina state agencies and the Research Triangle Institute. A list of their names and individual sketches of their background and interests is provided in Appendix 1.

Study groups concerned with specific problem areas continue to play a key role in the program. Topical study groups have been concerned with such aspects as Operations Research in Family Planning, the U.N. and the Population Field, and Population Policy. Area-specific study groups are instrumental in planning and coordinating population/family planning program interests in a particular geographical area. Such working groups exist for Thailand, India, Iran, UAR, Africa, and Latin America.

Departmental programs continue in the areas of anthropology, economics, sociology, psychology, political science, education, obstetrics and gynecology, maternal and child health, epidemiology, nursing, biostatistics, and health administration. An advisory council made up of chairmen of such departments is being formed to facilitate their involvement and coordination.

The space directly available to the Center has been increased this year to 23,267 square feet, in addition to the space utilized for population-related activities by participating departments.

2. Staff development: New professional and key administrative staff additions during the year included the following:

Dr. Robert Burnight, Visiting Professor in Sociology, replaced Dr. Arnold Kaluzny as CPC representative at Mahidol University in Bangkok. Dr. Karol Krotki, Visiting Professor of Biostatistics, served as a resident consultant for the Poplab Program in Morocco. Ms. Micheline Boyer, Assistant Professor of Public Health Nursing, joined the staff of the Nursing and Family Planning Leadership program; Dr. Richard Clinton, Assistant Professor of Political Science, serves as coordinator of the population policy analysis project. Dr. Boone Turchi, Assistant Professor of Economics, serves that department and CPC as a population economist. Ms. Patricia Gustaveson, Lecturer in Maternal and Child Health, became the Deputy Director of the rural family planning demonstration project. Mr. Robert Loddengaard, Instructor in Health Administration, is serving as a specialist in program evaluation. Mrs. Jeanne Stillman, Instructor in Health Administration, is working in the Center's African Population Program.

In the International Fertility Research Program, Mr. Peter Harkins, Mr. George Stathes and Dr. Javad Vakilzadeh joined the staff. Mr. James McClure joined the project concerned with automation of population library operations. Mrs. Bonnie Derr became the Center's Training Officer. In the Research Associate category, Dr. Françoise Hall worked on Chilean population studies, Mrs. Sushila Jain worked on abortion studies, and Mr. David Stillman worked on population policy analysis in Africa.

Visiting faculty members included Dr. Saad Gadalla and Dr. Haifaa Shanawany, both of the Social Research Center of the American University in Cairo. At CPC Gadalla was involved in the analysis of extensive fertility data and plans to conduct followup studies on population dynamics and population program and policy developments upon his return to Cairo. Shanawany was involved in the area of population policy development and in plans for strengthening population education in Egypt.

Support from the 211(d) grant was provided for partial or full salary of 27 faculty members involved in the academic program, six more than last year. Seven of these faculty members are working in the area of family planning administration, three in population statistics, two in nursing, three in communications and health education, two in mental health, three in reproductive biology, two in maternal and child health, two in population anthropology, and one each in demography, economics and psychology. In addition, the 211(d) grant provided funding for 22 secretaries, and for 34 research assistants including 16 part-time student employees. During FY 72, in addition, 9 administrative and library personnel were supported wholly or partially from this grant.

3. Library and Reference Services: The Library continues to grow in size and number of users, and to expand the services offered to both local and nonlocal patrons. With the basic collection well in hand, concentration during the past year was on expanding extension services and completing conversion of the card catalogue to machine-readable form.

The number of persons using the Library, with establishment of evening and weekend hours, rose to an average of 200 per week. The number of reference questions per week averaged 50, including all telephone and mail requests. Photocopying services were also expanded, and must be still further increased in the coming year. Our records show that reference services of various types (question answering, bibliographic search, bibliographies, photocopying, etc.) provided to users in LDCs increased considerably, averaging approximately 20 requests of varying complexity per month. The Library mailing list was revised and updated, and now includes 580 addresses in 71 countries. Publication of some of the monthly mailings, in particular the various acquisition lists, had to be suspended for part of the year due to the conversion process, but these will resume November first.

A major new addition to the reference and extension services was the establishment of the CPC Library Bibliography Series. The first two numbers in the series have been published, and four others are currently underway. The service is initially being offered free of charge, but will probably

resort to a subscription basis when some of the administrative/production details are resolved. The Series met with an enthusiastic reception, and requests for various issues are coming in steadily.

The Library also during the past year began an intensive program of development for the country-specific or "Area Files Collection". This collection includes material largely ephemeral in nature, which deals with on-going programs and research in specific areas of the world. An Area Files Specialist was added to the staff during the summer, and a broad-scale acquisitions and cataloguing program is underway. The Area Files section of the Library will ultimately be responsible for producing manual state-of-the-art bibliographies on selected countries. In particular, the Area Files will be developed in collaboration with the various Area Study Groups of the Center.

Conversion of the card catalogue to machine-readable form, phase one of a project concerned with the development of an automated system of storage, access and retrieval for population literature, was completed. Standardization is now underway, along with a streamlined cataloguing arrangement. Machine retrievals and machine-produced bibliographies are now available, though at an early stage of sophistication. During the experimental phase, these retrievals will be offered free of charge to libraries and to some individuals. Progress has been made also on the development of a thesaurus to be used in conjunction with the computer program, and this aspect of the work has been given high priority for the coming months.

In addition to its standard services, the Library also, under a sub-contract with the Research Triangle Institute, provided bibliographic assistance to the NESB Bureau of AID during the year. The computerized index, originally compiled in 1971, was updated and numerous specialized bibliographies were compiled.

In May, the CPC Library was host for the fifth annual conference of the Association of Population Libraries and Reference Centers. Staff members from the Library developed and produced two of the major seminars of that meeting. The APLIC is now in the process of affiliating with PAA, and plans to hold its next annual conference in conjunction with the larger organization.

Short-term traineeships of from two to four weeks each were completed for three new population librarians: Regina Rodrigues, Librarian, Centro de Estudos de Dinamica Populacional in Brazil; Encarnation Singh, Assistant to the Librarian, United Nations Fund for Population Activities; and Jean King, Librarian, National Family Planning Board, Jamaica.

4. Publications

During the past fiscal year, the Carolina Population Center published eight monograph-length volumes and two shorter works. In addition, two other works were in press at the end of June and will be published this autumn. Since 1969 seventeen publications in the Center's formal monograph series and six other volumes in related series have appeared, a total of twenty-three. A complete listing is provided in Appendix 2. These represent the best of some

eighty manuscripts submitted for review during that time. Since nine of the earlier monographs (numbers 1-7, 9, and 11) are no longer in print, we have increased our press run with Number 16 to 2,000 copies per publication.

The publications have appeared in three different formats. A blue series includes works of well documented research with a major objective of expanding basic knowledge of the population field, especially exploring interdisciplinary frontiers. Fields involved in this series have included social welfare, anthropology, economics, psychology, systems analysis, computer simulation, epidemiology, health administration, and political science. A green series is more flexible in approach, including reports of workshops, advisory papers for policymaking groups, and practical descriptions of population programs in different countries. A gold series will focus on aspects of population policy and program design.

Among this year's publications was a monograph on population policy processes by Dr. Anthony Measham, which became the basis of a feature article in the April 1972 issue of Family Planning Perspectives. More than 700 copies of Dr. Abdel Omran's Monograph 16, The Health Theme in Family Planning, were requested by AID for distribution to its officers throughout the world. AID also requested 500 copies of Monograph 13, Epidemiographic Surveillance, which was published in October 1971, and 600 copies of Approaches to the Human Fertility Problem, issued in September 1971. A volume in the green series, The Athoor Experience: Implications for a Statewide Family Planning Program, represented a joint publishing endeavor of the Carolina Population Center and the Gandhigram Institute of Rural Health and Family Planning in India; 500 copies were shipped to the Gandhigram Institute for its use.

Over 80 college and university libraries have made substantial orders of monographs and related publications. Among libraries which have given us standing orders for all future monographs are the New York Public Library, two libraries at Harvard, and others at Princeton, Cornell, and Yale, the Universities of Arizona, Massachusetts, and Michigan, Notre Dame, Georgetown, Duke, North Carolina State, Emory, Western Kentucky, the California Institute of Technology, the University of California at Davis, and the American Institutes for Research. A great many foreign libraries also have ordered individual publications.

The Center's reprint series makes available copies of population-related articles by the faculty here which have appeared in professional journals elsewhere. Through June 1972 forty-five reprints had been distributed. A current list is included in Appendix 2. Ten more will be included in the next listing in October. About 2,300 reprints were sent out during the past year.

In process also are two other special publications. The first is a comprehensive examination, over 400 pages in length, by some twenty authorities on various aspects of population and family planning situation in Egypt. Edited by Dr. Abdel Omran, and entitled Egypt: Population Problems and Prospects, the book will be an important source work. The second is Dr. Thomas Steahr's North Carolina's Changing Population, a demographic study of the

Center's own "population laboratory", based on the 1970 U.S. Census statistics. The book also contains a lengthy introduction and overview by Dr. Joseph Spengler.

The publications staff also has provided editorial services to Associates of the Center, overseas collaborators, and students on papers, reports, talks, bibliographies, and longer studies. These services have been especially heavily utilized by colleagues from overseas who need such help for recording and disseminating their studies and experiences.

5. Educational Materials Unit

The Educational Materials Unit was originally established with a grant from the Rockefeller Foundation to develop prototype materials which might be widely adaptable to serve the information and educational needs of population programs, to establish related training activities, and develop research and evaluation studies in this area. The unit was the first of its kind to be charged with such responsibilities.

The unit produced the CPC Monograph No. 6, "Family Planning Educational Materials: An Annotated Bibliography of Selected Items," and continues with the development of a wide variety of educational materials, including booklets, flipbooks, a film, a series of sound filmstrips and direct mail pieces, mostly for specific target groups. Booklets and flipbooks were developed under contract from the Office of Economic Opportunity and have since been reprinted and distributed in large quantity by the Government Printing Office. Others have been made available, at printing cost, to family planning programs in the U.S. and abroad. A listing of such materials is included in Appendix 3.

A communications training seminar was held in Bangkok in 1968, funded by AID, for representatives from 16 countries in the Far East and NESAs regions. A second seminar, funded by The Ford Foundation, was held in Tehran in 1970, for 15 countries in the Middle East and African regions. Followup contacts and consultation with the participants still have continued.

A new degree training program for family planning mass communications specialists was established in 1970, with the cooperation of the Department of Health Education. Graduates of this program who completed their training in December 1971 were from India, Iran and Malaysia.

Research activities have dealt with distribution systems for nonmedical contraceptives, an evaluation of the sale of nonmedical contraceptives by direct mail, and improved methods of identifying motivational factors affecting contraception. During the past year the unit has been involved in a major program to develop and evaluate the effects of mass media programs in four U.S. cities on contraceptive behavior and the prevention of unwanted fertility. The study has been completed (an interim report appears in the July issue of Perspectives) and has implications for urban programs in developing countries.

Development of self-instructional materials is a major focus henceforth. Units are in process on factors affecting fertility, for professional workers.

Another series provides information on human reproduction and contraception to post-partum patients. The unit also aims to develop a series of packages in collaboration with Professor Amos Hawley to cover a basic graduate course in demography. This material can greatly facilitate the training of population/family planning specialists in the U.S. and in overseas institutions.

6. Training Activities

a. Degree Programs

During 1971-72 a total of 140 students specialized in population studies at the master's or doctoral levels at UNC. Student enrollment in the population program has more than doubled since 1966-67, when there were 45 such students. A list of the students enrolled during the 1971-72 academic year is attached as Appendix 4. Students are registered in existing academic departments associated with the Population Center, but their programs of study utilize a combination of population-related courses offered by several departments so they may acquire both depth in the application of a basic discipline to the population field and a grasp of the broader field. Through inter-university cooperation, students may also register for population-related courses offered by nearby Duke University and North Carolina State University at Raleigh.

During this academic year over 40 courses dealing directly with population and family planning were available to the students. In addition, content of other general courses tended to deal more with population issues. Suggested courses and electives for population students during 1971-72 are listed in Appendix 5. Special attention this year was given to greater involvement of basic ecology training contributions to the total program, on strengthening nursing-midwifery involvement, on program management training, on short-term training in birth control technology, and in advancing policy-oriented studies.

In addition to departmental courses, population faculty and students meet weekly for a general lecture-discussion series. These are held each Monday evening during both the fall and spring semesters for credit and audit by population students. The program for the 1971-72 series is included in Appendix 6. Selected students and faculty members also meet for other special seminars and presentations, arranged according to needs and opportunities, frequently throughout the year.

Among the 140 students enrolled during 1971-72, approximately 35 percent were from other countries and 65 percent were from the United States; about two-thirds of the students were in research-oriented programs and one-third were in professional fields. Thirty-four American students were provided fellowship support under an NICHD population training grant to the Center, and others were supported by funds through their academic departments. Among the foreign trainees, nine were sent directly by AID and others came with the support of The Population Council, The Ford Foundation, World Health Organization, and other private sources. In addition, 16 foreign students were provided fellowship support by the Carolina Population Center. Four of these awards were made available through the Center's AID institutional grant; the other 12 were supported through funds provided to the Center by The Ford

Foundation and the Jesse Smith Noyes Foundation. These students were staff and faculty members from collaborating institutions abroad who could not receive funding under the usual AID participant programs, but whose experience here would foster later research and training activities between the Carolina Population Center and their overseas institutions.

b. Alumni of the Program

As of June 1972 the program had graduated 193 students with a specialization in population and family planning. Fifteen of these graduates have since enrolled for further advanced training in population studies. There are 83 graduates employed in the United States, and 95 are now overseas, primarily in the less developed countries. Nine alumni are working in population-oriented positions with USAID, five of whom are in overseas missions. A summary description of present positions, degrees awarded, and basic disciplines of alumni is included in Appendix 7.

c. Special Services

During 1971-72 short-term orientation services were provided for a total of 118 persons sent to the Center by USAID, The Ford Foundation, The Population Council, World Health Organization, and others. The Center's training office organizes carefully structured programs of from one day to several months duration for such persons. This service involves a heavy investment of faculty time, calculated during 1971-72 as a total of 1,576 faculty man-hours of effort. Costs of the training office services plus such faculty time are primarily borne by the AID 211(d) grant funds. This investment seems justified as an international service. It also helps to build overseas relationships and to stimulate faculty and students.

The largest number of visitors to the Center were internationally-oriented professionals from the United States, followed by Iran (11 persons), India (10), Ghana (10), Thailand (7), United Arab Republic (5), Peru (5), and Brazil, Canada, Ethiopia, Ecuador, Guatemala, Italy, Jamaica, Korea, Nepal, Nigeria, Nicaragua, Peru, Singapore, Thailand, Tunisia, Turkey, West Indies, and Yugoslavia (all 3 or less). A list of visitors and short-term trainees is provided in Appendix 8.

d. Conferences and Workshops

The Center sponsored eight conferences or workshops during the period covered by this report, as listed below:

(1) National Family Planning Forum

On March 8, 9 and 10, 1972 the CPC hosted the organizing meeting of the National Family Planning Forum. The Forum is a new organization of U.S. family planning program administrators. The 93 participants at the meeting represented the largest family planning projects in the U.S., plus the Director of the National Center for Family Planning Services, the Director

of the OEO Family Planning Division, and state and regional officials. Technical discussion topics included "Evaluation--Form Follows Function," "Family Planning Program Evaluation: The Present Situation and Future Priorities," "Workshop for Family Planning in the U.S.," and "Categorical Family Planning in an Evolving Health Care System".

(2) Poplab Conferences: Morocco, Philippines and Colombia

In 1972 three Poplabs were in operation, another had been formally agreed upon and several more were at various stages of negotiation. Three separate but closely related conferences were held in Chapel Hill, one for every operating Poplab, to permit attendance at each of a larger number of participants from the country concerned and to permit an agenda that focused on the specifics of research programs and administrative matters. The first was held from April 10 through 12 (Morocco); the second from April 24 through 26 (Philippines); the last from May 1 through 3 (Colombia). The Moroccan and Colombian meetings availed themselves of simultaneous translation.

The agendas and technical content had been worked out by the campus project representatives in cooperation with resident advisors and host institution professionals. A number of outside consultants participated and in some instances led discussions on topics within their specialties. These country-focused meetings had definite assets but a valuable dimension was also lost by not having the benefit of exchanges among country experiences. It may be possible to design a format which will satisfy both types of need in the future.

(3) Self-Instructional Materials Workshop for Population Teaching

A special workshop was organized for 20 faculty members concerned with population/family planning studies on April 20 and 21 at the Carolina Inn in Chapel Hill. At the workshop each participant worked through a set of self-instructional materials called Assuring Learning with Self-Instructional Packages and then developed and evaluated an instructional package representing a short segment of a course which he was presently teaching. The immediate aim of the workshop was for each person involved to produce a short, individualized instructional unit which could be tested during the workshop and later revised until it became effective. This effort was an important step toward achieving greater efficiency in the on-campus teaching program and toward helping overseas collaborating institutions strengthen their basic training activities.

(4) Fifth National Conference of the Association for Population/Family Planning Libraries and Information Centers

Sixty-five participants from population-related agencies in the U.S., international agencies and selected LDCs met in Chapel Hill on May 4 and 5 for the fifth annual conference of the Association for Population/Family Planning Libraries and Information Centers. Sessions included discussions on information and communication sources and materials in family planning,

information retrieval (library methods and computer usage), operational problems related to population information services, the international population library directory and the population library journal, construction of a hierarchical indexing vocabulary for population/family planning literature and population education materials.

(5) Political Science/Population Workshop

On May 4, 5 and 6 approximately 30 persons from universities and international agencies gathered in Chapel Hill for the second annual Political Science/Population Workshop. The group was comprised largely of political scientists, though some economists and sociologists were also involved. The workshop aimed to produce fresh viewpoints and insights regarding the directions which political science research in the population area should take. Problems relevant to population policy studies in LDCs received special attention. Proceedings were recorded and will be later published.

(6) International University Population Program Development Project: Study Group of University Heads

The first meeting of the International Study Group of University Heads was held at Chapel Hill on June 4-6. Participants included representatives of eight universities in Thailand, India, Iran, Turkey, Egypt, Ghana, Brazil and the U.S.A. The objectives were: (1) to enable the International Study Group to take on the overall leadership of this project, which is concerned with the development of broad interdisciplinary and service-oriented population programs in universities around the world, (2) to consider strategies and a workplan for the coming year, including plans for subsequent meetings and group contact during interim periods, (3) to identify and discuss issues of particular interest to the heads of universities who are now developing population programs, and (4) to identify other concerned individuals who might become involved in the IUPP project in specific universities, countries and regions. Tentative plans were made to hold the second meeting of the group in Bangkok during March 1973.

7. Research Activities

The following general summary seeks to provide an overview of research efforts connected with the Carolina program, arbitrarily grouped under major categories, and noting completed work as well as current activities and interests. Recent publications of Associates of the Center, reflecting such activities, are listed separately. Information on specific projects is also available. Student research involvement depends on individual investigators, but is specifically fostered by the Center.

a. Program Development Studies

McLaughlin, Trainer and Schaefer continue efforts to evolve, formulate and test general program models designed to raise the efficiency of planning, implementation, and evaluation of population program development. Naylor, Moreland and Chu have developed a computerized management game which simulates general decision situations faced by administrators. Studies by Schultz, Trainer, McLaughlin and O'Connor seek to improve management record handling in family planning service programs. Allen is concerned with studies of interagency and other population program relationships. Udry and others have engaged in a long-term project which involves helping to design and evaluate new HEW-supported programs in 18 cities across the United States. Evaluation efforts include measurement of changes of incidence of undesired birth timing and of excess fertility and development and testing of indicators of adequacy of service activities. Hall is working at the regional level with HEW in the development of plans for the extension of family planning services throughout eight southeastern states, and arrangements are underway for long-term technical assistance relationships between CPC and the Regional Office, especially on aspects of program evaluation design. At the state level, Noyes, Hall, and Knauff have collaborated closely with the State Task Force charged with the development and implementation of North Carolina's family planning program, and CPC is under contract to the State to design the evaluation system to be used. A similar contract deals with manpower training and development. A major OEO-sponsored program is testing methods for augmenting family planning services in 19 rural counties. Jain and others are analyzing data from different districts of India to study effects of different program operation characteristics on program performance. Jenk has worked with the Family Planning Association of India on field operations research planning. Kessel with Cassel and others have initiated a major international comparative study of pregnancy termination methods and services. Problems of manpower analysis and development for the family planning field are of special concern to Jain, Trainer, McLaughlin, Edmands, Lynton, Hall and others. In the School of Education's new Center for Population and Environmental Education, Beach and a faculty group are now concerned with developing research on demographic factors in educational planning, and on organizational and evaluation aspects of population education.

b. Biomedical Studies

Reproductive biology: The Laboratories for Reproductive Biology, established in 1969 with the aid of a grant from the Rockefeller Foundation, are directed by Dr. H. Stanley Bennett, Kenan Professor of Biological and Medical Sciences. Members of the Laboratories for Reproductive Biology are active in the following research areas: (1) Neurological control mechanisms in reproduction; (2) membranes of gametes and other cells; (3) cell and molecular biology of male gametes; (4) endocrine control mechanisms in reproduction; and (5) contraceptive techniques. The Laboratories for Reproductive Biology are

administered through the Dean of the Medical School, and members of the Laboratories represent such disciplines as biochemistry, anatomy, zoology, pharmacology, pediatrics, neurology, and obstetrics and gynecology. The Reproductive Physiology Research Laboratory at North Carolina State University in Raleigh, under the direction of Professor Lester Ulberg, is active in studies of comparative reproductive physiology of mammals. This Laboratory is administered through the Department of Animal Science of North Carolina State University. Professor Ulberg and his staff are cooperating with Hulka and others of the Chapel Hill group in their research. Cooperative arrangements between the Reproductive Physiology Research Laboratory in Raleigh, the Laboratories for Reproductive Biology and the Carolina Population Center in Chapel Hill are growing.

Clinical research: In the Department of Obstetrics and Gynecology at Chapel Hill, research activities have concentrated on early pregnancy and sterilization. Hendricks and colleagues are studying prostaglandins and their analogs as abortifacients. Hulka is studying mechanical and pharmacologic ways of making dilation (for vacuum aspiration) of the pregnant cervix easier and safer. Hulka is studying improved methods for surgical sterilization, including laparoscopy, and reversible sterilization methods for females and males. Hulka and K. Omran continue studies on possibilities of inducing an immunological rejection response to the trophoblast. Another study involves stimulating the mucus glands of the cervical to secrete antibodies to sperm. A major new international program of fertility control studies, conducted by Kessel, involves the Obstetrics and Gynecology and the Epidemiology Departments at Chapel Hill, and an extensive network of international collaborators.

Van Wyk and French in pediatrics are exploring basic endocrinological factors influencing sexual maturation and fecundity. Morris and Udry have studied variations in menstruation, libido and coital frequency, and biological and social factors influencing these, the influence of oral contraceptives on such cycles and on levels of physical activity, and field studies on techniques of detecting early pregnancy and studying pregnancy loss.

Population genetics: Pollitzer's group is concerned with studies on isolated U.S. populations of different ancestry. Using genetic traits, physical measurement and demographic data, estimates of preferential matings and differential fertility among groups and phenotypes have been made. The genetic contribution of the parental populations and the role of cultural factors in gene flow are being investigated. Elston, Pollitzer and others are now searching for major genes which may underlie behavioral traits.

c. Demographic Studies

Improved population measurement methods are the subject of a broad research program involving Linder, Wells, Greenberg, Sheps, Abernathy, Coulter, and others in biostatistics. Improved methods, utilizing longitudinal and periodic designs, are being built on basic research in survey design, investigations of non-sampling and response errors and the development of a range of mathematical population models. Another major program involving Linder, Smith, Myers, Losee and other members of the biostatistics

group aims to help local institutions in selected less-developed countries to build field "Population Laboratories." Each of these will involve demographic studies in a selected local geographic area, in order to test and demonstrate improved measurement methods and to study population dynamics under different conditions. These are now being developed in the Philippines, Colombia and Morocco.

A research program under Sheps, Greenberg, and Lachenbruch especially has aimed to develop new estimation methods for population analysis, to assess their accuracy, reliability and sensitivity, and also to study procedures for collecting appropriate data. Birth interval methods have been of special interest. To evaluate such estimators, an existing computer microsimulation model is utilized, as well as other special purpose models as necessary. In mathematical demography, Namboodiri in Sociology is continuing his studies on stable population theory and has recently undertaken studies in numerator analysis techniques.

Substantive studies of North Carolina by Hamilton and Steahr on North Carolina provide the most detailed demographic analysis ever done of a state population in the U.S. These investigators are also studying population changes in the Southern region of the U.S., including production of a summary monograph on this subject. A number of studies are underway on overseas population groups. Bauman and Kaluzny have worked in Thailand, and Burnight is now at the Population and Social Research Center in Bangkok. Omran directs a project analyzing population patterns in the Middle Eastern countries. Paydarfar is pursuing basic studies on the sociology of fertility in Iran, and Gulick has undertaken population anthropology research in Isfahan. Wells and Namboodiri are collaborating with important studies of fertility and population dynamics being carried out at Gandhigram, in South India.

Hawley continues his basic work on urban ecology and his interests in the implications of population size on social organization. Purdy, in sociology, is also focusing on urban studies. The Center for Urban and Regional Studies, a research group under Dr. Shirley Weiss has become particularly concerned with new town development and the quality of urban life, and has established a field station at Columbia, Maryland.

At a fundamental level of demographic analysis, studies on basic population stabilizing mechanisms are being pursued in the context of the University's ecology program which involves faculty members in seven departments. This work deals with several species of animals and plants. The interests of Dr. Stiven and Dr. Long in zoology especially focus on the demographic characters of specific populations existing in different environmental systems, the relationship of genetic variability to environmental heterogeneity and flux, and the nature and causes of population mortality.

1. Psychology Studies

The departmental faculty in psychology at Chapel Hill are increasingly involved in development of psychological studies relevant to better understanding of population dynamics. Explorations so far relate to attitude structures associated with family size desires (Thompson, Insko, Appelbaum), semantic differential studies of population terms (Appelbaum and Young), premarital counseling approaches to birth control and family planning (Lowman), development of educational approaches for use with delinquent populations

(Eckerman), development of educational materials concerning cross-species psychobiological correlates of reproduction and effects of crowding (Brown), consideration of psychological incentives factors related to population change (Lolordo), and crowding studies with humans (Schopler). Field studies by Insko, Blake, and others concerning attitudes toward birth control among low-income groups represent one of the first attempts to advance modern psychological theory related to fertility and contraception. A doctoral study by Kothandapani analyzing various attitude measures as predictors of birth control usage has provided the basis for a Carolina Population Center monograph. Thompson has summarized knowledge on psychological antecedents, correlates and consequences of family size. Thompson, Insko, and Appelbaum are engaged in experimental studies of attitude change approaches among persons desiring more than three children. Thompson has worked with Allen and Prothro on a development of refined instruments for assessing attitudes and values relevant for population policy. The departmental group is particularly concerned with advancing further research in three areas: attitudinal and motivational factors in reproductive behavior, improved measurement of population variables, and psychological aspects of population density and migration.

e. Family Studies

Sussman and Cogswell are engaged in a four-year program of cross-national research on family system dynamics as a linkage between aspects of societal organization and fertility behavior. Factors of concern include, for example, structural aspects, spouse interaction, influence of children already born, and socialization processes and outcomes. The project involves research collaborators in ten countries. This study is also examining different family structures with regard to their functions in identifying social options and equipping family members for alternate performance patterns, with implications for fertility and birth control behavior.

Polgar, in Anthropology, has been investigating the influence of conjugal role relationships among Black and Puerto Rican families in New York City poverty neighborhoods, as these affect the use of different methods of birth control. This work also examines effects of an additional birth during the study period on educational, economic, and health status of observed families. Coulter, in biostatistics, has studied adoption and other outcomes among a cohort of illegitimate births in the State of North Carolina. Cogswell is engaged in a study of the socialization of adolescents into sexual roles in a poverty neighborhood, their relationships with their parents, and other factors which may influence the prevention of unwanted pregnancies.

The influence of family child bearing patterns for the health of family members is a strong concern of Siegel, Morris and others in the Department of Maternal and Child Health. Omran and others in epidemiology are especially concerned with problems of research design in this subject area. Omran has developed and is coordinating a WHO-supported international program of research on relationships between fertility and family health which now involves seven countries, and soon will involve three more. These studies involve longitudinal observation of health and demographic variables and their results.

Marshall, as part of an anthropological study of decision-making about contraception in a village in India, is investigating intra-family communication networks and beliefs, values, and expectations regarding family size limitation.

f. Economic Studies

Population research interests of the departmental faculty in economics at Chapel Hill are already substantial and are becoming more focused. Afriat, a mathematical economist and theorist, is interested in population optimization questions. Pfouts has recently worked on mathematical theory of stable populations, and Tarascio on Keynesian population theory. Grandstaff has analyzed migration in the Soviet Union, and Iden is working on economic aspects of migration in the U.S. Richter is concerned with internal migration and economic development in less developed areas. McFarland previously helped to build the General Electric TEMPO simulation model of demographic-economic interaction, and is now moving into research on the economics of population distribution and natural resource conservation. Orsagh, an economic historian, has studied aspects of geographic distribution of income and of immigrant labor. Scheffler's research in the area of human resource economics now focuses on problems of health manpower distribution. Boone Turchi has developed a micro-economic model of family size decisions and is concerned with further work on optimum decision theory in population research. In addition, now Joseph Spengler will join the group during the year to help in advancing the above research interests, to explore further the social and economic implications of zero population growth, and to continue his studies on the implications of different population distribution patterns and approaches to achieving optimal distribution. Naylor, an associate of the Center who heads the econometric systems simulation program at Duke, is working with Chu and others on development of econometric models in Brazil and Taiwan; they especially seek to incorporate demographic factors so as to enable the study of implications of alternative growth patterns, suggest needs for additional demographic data and advance general population research concepts. At the nearby Research Triangle Institute, David and Lindsey have studied demographic components of economic development in Nepal and North Carolina.

g. Political Studies

Faculty members in political science at U.N.C. are deeply concerned with development of research on population relationships with politics and government. Prothro has worked with Allen and Thompson on methods to measure population-relevant value profiles among different groups, as relevant to population policy development. Lind worked last year on effects of population dynamics on psychological aspects of political participation; he and collaborators are developing a study of the political implications of metropolitanization in a nearby area. White is involved in research on effects of urban migration on politicization of migrants and on institutional structures, using the case of Japan. Flash has pursued a long-standing interest in health policy with added attention to population policy development and implementation. Clinton has completed a study on problems of population policy formation in developing countries with a Hispano-Catholic cultural tradition, and hopes to expand and test population policy-relevant

concepts especially through comparative work in Latin America. Lehen is concerned with the influence of population patterns and changes on political process and governmental forms, and hopes to pursue work in this field especially in the southeastern U.S. Levine has studied comparative ethno-politics in Africa and seeks to clarify population policy issues among selected African states through comparative studies of their natality patterns, political histories and sensitivities of current regimes. He also seeks to study the interplay between institutional and personal factors in population policy development in African situations. An International Population Policy Studies Consortium has been established with co-sponsorship by U.N.C. and institutions in Mexico and Yugoslavia, as a means of facilitating internationally oriented population and political science studies. Its secretariat is currently manned by Clinton in Chapel Hill. Papers presented at the population/politics workshop held at U.N.C. in December 1970 are being published as Political Science and Population (D. C. Heath and Company); a companion volume, Research in the Politics of Population, edited by Clinton and Godwin, will report on specific studies. The political science group will hold another population/politics workshop in the spring of 1972. Other relevant activities include a study of Buddhist relationships with population programs in Southeast Asia, and Nash's initial explorations of implications of various religious value systems for human reproduction. Kamala Rao, of India's National Family Planning Institute, worked on policy-oriented research interests in Chapel Hill during 1970-71. In the Department of Health Administration, Jain has studied the legislative dynamics of abortion law reform in the U.S. and Measham completed a study of family planning policy formation at the county level in North Carolina. Colleagues at Duke University include Kurt Back, concerned with social psychological aspects of population policy, and Halderman, concerned with international law and population programs. Stillman of Duke, with CPC support, is working on a comparative framework for understanding national population policies with reference to African countries. Keir Nash, while a Research Associate of the Center, served as Director of Political Studies of the Commission on Population Growth and the American Future.

8. Field Program Relationships

An overview of relationships with various less developed areas is provided below, including past activities and current activities and interests.

a. Africa

A special program for assistance in development of population study programs in African universities has been established at CPC, with AID support and with the collaboration of a group of concerned faculty members from other U. S. universities. An initial relationship has been established with the University of Ghana aimed at helping to build a broad-based program of population studies with emphasis on policy-oriented research and teaching. Dr. Abraham David is being placed in Ghana as Resident Representative for this program. Stillman has developed a framework for analysis and evaluation of effects of a range of population-related governmental policies, with reference to Ghana and Togo, which will later be field tested. Kaluzny is developing a family planning field worker evaluation program with Armar, Director of Ghana's national family planning program.

Explorations are also underway to establish other institution building relationships with other universities in Africa, including the University of Ife in Nigeria.

Another CPC-based, AID-supported project has been exploring approaches to strengthening family planning content in African health training institutions. This effort now mainly concentrates on working with the Association of Medical Schools in Africa, and involves collaboration in the USA with the Association of American Medical Colleges. The AID-funding of the exploratory study has been completed. The CPC will act as a technical resource for four regional meetings on teaching of "family health" planned for early 1973 under the auspices of AMSA with support through AAMC. Plans for a more comprehensive and longer range program will be presented to AID for its consideration in the near future.

In a number of African countries, collaboration is also developing with the clinical studies of the International Fertility Research Program.

Pilot studies of the feasibility of strengthening distribution systems for nonclinical contraceptive methods were completed with local collaborators in three African countries; as a result, a substantial demonstration project has been developed in Kenya with AID sponsorship through Population Services, Inc.

Improvement of population statistics in Africa is a goal of a Population Laboratory project now established in Morocco. Other Population Laboratory projects are also in the planning phase in Kenya and Nigeria. In Tanzania, a field study is being carried out by Wood to demonstrate how improved methods for vital statistics registration can be linked with postpartum family planning care.

Under the University Overseas Population Internship (Frederiksen Intern) program, Berger is working with the family planning component of the program, Planning for Better Family Living (PBFL).

b. Brazil

The CPC has made a general commitment to Brazil as one of its areas of key interest, because of its obvious importance in this hemisphere and because of a special interest in Brazilian studies at UNC. Exploratory discussions have taken place with Dr. Walter Rodrigues of BEMFAM and others. Clinton maintains contact with Comargo in the policy studies field. Naylor of Duke has helped to strengthen the use of demographic factors in economic planning models at the Vargas Foundation, and a small, foundation-supported project there continues this work.

The Rector of the Federal University of Rio de Janeiro was invited to Chapel Hill for the April meeting of the International University Population Program Development project, and indicated his intention to promote further population studies through the Council of Rectors of Brazilian Universities. This effort is being followed up by colleagues from the University of Florida. The CPC will continue to strengthen relationships with Brazilian colleagues who are presently or potentially concerned with population policy program matters, and will serve low-key, backstopping functions where possible. Daland, Naylor, and Clinton especially represent CPC interests in this area.

c. Chile

A formal arrangement was earlier developed for exchange and assistance with the population studies program at the University of Chile, but this is inactive because of political and personnel changes. Mutual interests and contacts remain. A doctoral student in demography from the University of Chile is working in Chapel Hill. Dr. Francoise Hall is working with data collected in Chile under a Johns Hopkins-sponsored project on relationships between attitudes of different groups and the evolution of population policies.

d. Colombia

In Colombia, Burleson worked earlier on development and testing of population education curricula. During the summer of 1972, the CPC and the School of Education conducted under AID contract a special family planning training program for a group of Colombian home economists. A Population Laboratory project has now been established with the Colombian National Statistical Department. Under the University Services Agreement, Allen and others at CPC have worked with Colombian colleagues on proposals in the areas of curriculum development, training, and program evaluation at Pontifical University Javeriana, La Asociacion Colombiana para el Estudio Cientifico de la Poblacion, and PROFAMILIA.

e. Haiti

In February, Anderson accompanied Webb of Virginia Polytechnic Institute to Haiti to explore the feasibility of including family planning

in a program of nutritional rehabilitation for preschool children, with assistance by the Research Corporation. It was hoped that this successful nutrition program could be expanded and a family planning component added with financial assistance from AID, but we understand that such funding has not yet been approved.

f. India

CPC Faculty Associates have had extensive experience with India's population and family planning program. In India, as elsewhere, CPC has emphasized that collaborative efforts in the population field should be truly reciprocal, and the Chapel Hill group has benefited considerably from help of Indian professionals.

A major effort by Jain in response to a request by the Government of India aimed at examining the feasibility of a systems analysis of the Indian national family planning program through a comparative study of selected state and district programs. It helped with an initial explanation of relative influences of certain population features, resource inputs, and administrative and operational factors on program effects. The Haryana State family planning program has maintained close relationships with the CPC, and continues its own studies of state program efforts.

The Administrative Staff College in Hyderabad with CPC assistance has passed from the phase of developing teaching cases on family planning administration problems, as a means of building its competence in this field, to the use of these to teach program administrators, and to orient others in India to undertake similar studies. The College has been increasingly called on for consultation and assistance by the Government of India on family planning program problems and newer project developments. The CPC maintains continuing informal supportive relationships with these developments.

The Allahabad Agricultural University Health and Family Planning Project is directed by Drs. Lessel and Pramila David, both of whom were supported by the CPC for a period of advanced studies. This effort, which includes trials of different types of field work patterns, improved methods of staff training, introduction of newer methods of sterilization and abortion, and improved evaluation methods now is funded through IPPF but continues to receive consultative help from the CPC.

The Family Planning Association of India was assisted by the CPC, at the request of the IPPF, to strengthen its own internal organization and develop a more dynamic and innovative role. With the help of Jenk, who completed his assignment in June 1972, FPAI now supports experimental pilot field projects, training in pregnancy termination techniques, development of special mass communications programs, measures to introduce population education in the schools, greater involvement of industry in promoting family planning, strengthening of population library and information services, and development of closer links between family planning and basic rural health services. FPAI branches throughout India have been strengthened and expanded in number. The FPAI budget has expanded over tenfold.

The Gandhigram Institute of Rural Health and Family Planning also maintains contact and mutual supportive relationships with CPC, especially

in aspects of staff development. It continues to strengthen field program demonstrations and training programs for official family planning workers throughout South India, and to work on improved educational methods and on studies of reproduction patterns and of fertility changes resulting from program influences. Pisharoti's set of non-computer simulation materials for training family planning administrators in developing countries is used in the teaching program at Chapel Hill.

Assistance to Indonesia is an indirect bonus from the work with Gandhigram. The Gandhigram Institute has been a key source of field training of Indonesian national and provincial family planning administrators and trainers. The former Director of the Gandhigram Institute, Ranganathan, has become a senior family planning program advisor of the World Bank in Indonesia.

The National Family Planning Institute in Delhi has also maintained continuing consultation and exchange with CPC. Dr. Kamala Rao, as head of the National Family Planning Institute's Social Research Division, worked as a Visiting Scholar at Chapel Hill to summarize and analyze social science research on family planning programs and policies in India, and to design further studies on improved delivery systems. Poddar of the National Family Planning Institute is now working with CPC on improved methods for vasectomy.

At the National Institute of Health Administration and Education, the CPC has helped to strengthen management training and research on family planning administration problems. Dr. K. Rao has transferred to this institution. Family planning research and training interests are also encouraged in management institutes in Calcutta, Ahmedabad, and Delhi. Population study programs at several universities also receive some help through consultation and staff training support.

Population education in schools has received increasing attention in India with CPC assistance from an early stage, including pilot studies near Delhi, curriculum experiments in Mysore State, and help with FPAI efforts in this field.

Statistical measurement of population trends and evaluation of family planning programs in India is a crucial need, to which training activities in Chapel Hill have especially related. Young statisticians in key positions in the Office of the Registrar-General, state government, and research and training institutions have received fellowship support from the CPC for advanced work on basic population measurement and analysis problems. This group is now rising into positions of leadership. Other Indian trainees have included official program administrators, evaluators, educators, and researchers.

Mosley has worked closely with the Committee on Clinical Research on Reproductive Biology and Family Planning in Calcutta and has a proposal pending at AID to study pregnancy intervals and associated factors among groups in Calcutta.

Under the AID-supported International University Population Program Development project, an international network of exchange and consultation

aimed at the development of university population programs includes the Universities of Delhi, Bombay, Udaipur, and Jaipur, the Indian Institute of Management at Calcutta, The Administrative Staff College at Hyderabad, Allahabad Agricultural Institute, and Nehru University.

While current political and funding situations have hindered assistance efforts with India, the CPC has sought to maintain strong information relationships and will continue with assistance and exchange activity.

g. Iran

Continuing assistance is provided to the Iranian family planning office on various aspects of program development. With UN sponsorship, Paydarfar led a team of Iranian experts to assess national family planning activities and resources and to provide a framework for further planning and expansion. Trainees at Chapel Hill have included several of the top staff of the family planning program in the Ministry of Health. Blake worked earlier with the Ministry in organizing a regional family planning communications workshop, and during 1972 provided advanced training and consultation help for the director of the national family planning communications program.

Tehran University faculty members concerned with population studies have received advanced training in Chapel Hill in such areas as family planning program administration, epidemiology, and population statistics. A Frederiksen intern, Bhatnagar, established the first family planning courses in the Tehran School of Social Work. Jalali in the School of Public Health serves as a coordinator of collaborative fertility control studies between Chapel Hill and clinical centers in the Tehran area. At Isfahan University, Gulick worked for a year to help develop research on patterns of communication and acceptance of family planning, and continuing consultation is provided to the emerging population studies program. A proposal is now at AID/W which seeks limited funds for Gulick to return to Iran and assist in Phase II of this program. At Isfahan, Bhatnagar will now work as a Frederiksen intern to advance population education activities there.

At Pahlavi University in Shiraz, Paydarfar has collaborated in baseline demographic studies among different groups and on factors influencing family planning acceptance. A Frederiksen intern, Bhattacharyya, has developed the first formal demographic courses at the Pahlavi University and is helping to link University interests with official family planning program problems. Hastings and Saltonstall, additional Frederiksen interns, have also been approved for Iran assignments. Several of the CPC faculty have assisted in planning an intensified demonstration family planning program in Fars Ostan, which is now getting underway, and the CPC will provide continuing support to this effort.

Additional program concepts have been jointly developed by CPC staff with Iranian colleagues, ranging from general institution building at Pahlavi, Isfahan, and Tehran universities to specific problem-oriented projects. Several of these are at AID/W pending funding decisions.

h. Korea

The Seoul National University School of Public Health requested the

CPC to help develop and implement an overall administrative analysis of the Korean National Family Planning Program system. This effort was assisted by McLaughlin and Trainer. The project examined the national program's management information system, manpower policies, financial structure, and other factors influencing program efficiency. In addition, Yun of Korea is working with Steuart at UNC to develop self-instructional materials on family planning education for Korean army personnel.

i. Pakistan

The former Director-General of the Pakistan Family Planning Program, Dr. Nafis Sadik, worked in residence at CPC on an overall analysis of experience with the Pakistan family planning program system, in collaboration with a Pakistani graduate student in family planning administration, Jahangir Khan. Sadik subsequently joined the UNFPA. Khan has returned to develop population studies in the University of Karachi, and is now designing operations and policy analyses in collaboration with Kaluzny at Chapel Hill. USOM/Pakistan has also expressed interest in the CPC working with local leaders to strengthen further plans for the Pakistan family planning program.

j. Philippines

A Population Statistics Laboratory project has been established with Xavier University in Luzon. At that University, also, help is planned to further strengthen graduate training in demography. Xavier University has developed two other projects in collaboration with CPC staff: one will help produce a basic demographic text keyed to the Philippine culture and experience, and the other will assist the Center for Sex and Population Education to produce sex education curricula and materials to local schools. It has also been suggested that CPC consider participation in a Philippine experimental urban family planning program in collaboration with Xavier University and the city government of Cagayan de Oro.

In the field of population education, consultation has been provided to Dr. Liceria Soriano, head of the Philippine primary education system, who is a pioneer in this field. Training activities of the Philippine national family planning program today are led by several participants in CPC's first intensive workshop on training of trainers in family planning, held in 1967. Two Frederiksen interns are now in the Philippines: Donald Chauls is assigned to the Department of Education at Manila under Dr. Soriano to assist the Department's in-service training programs for population education; and Paul Holme is in the population education program at the Philippine Wesleyan College in Cabanatuan City.

k. Taiwan

Assistance to Taiwan's Council for International Economic Cooperation and Development has been provided by Chu, Moreland, and Seeks since 1970. At that time, Taiwan national economic plans virtually ignored a number of key demographic factors and their possible policy implications. An improved planning model for Taiwan, which allows estimation of influences of recent population changes and of alternative future population trends, has been worked out and is now officially utilized. Also, a simple computerized family planning program game was tested and further developed in Taiwan,

through the international family planning training center there.

Dr. K. K. Chang, of Taiwan's national family planning program, worked earlier in Chapel Hill on an analysis of the Taiwan family planning program system, examining information and supervisory factors which could influence its efficiency, and is now testing these concepts and using them in training work there. A Frederiksen intern, Dr. Alan Tharpe, now serves as Administrative Associate to Dr. T. H. Sun, Executive Secretary of the Committee on Family Planning.

1. Thailand

The Mahidol University Institute for Population and Social Research, established with CPC assistance, continues to receive CPC help in faculty development and in building research and service activities, with Rockefeller Foundation support. Burnight serves as resident program consultant. Kaluzny's work with the Institute has produced a joint project with the Thailand's Ministry of Health to seek more efficient patterns for use of family planning field workers. Kaluzny also developed with Thai officials a framework for a broader, input-output type of analysis and evaluation of program operations in different parts of the country. Wray, formerly with CPC and now with the Rockefeller Foundation, has developed a model family planning and health information system, for teaching and demonstration purposes near Bangkok. The CPC has assisted the Thai Health Ministry also to consider possibilities of linking its malaria surveillance system to the family planning program. The CPC has also sponsored studies on the possible greater involvement of the Buddhist groups in support of population policies and programs in southeast Asia.

A Frederiksen intern, Donaldson, now works with the Mahidol Institute for Population and Social Research. Two additional interns are now being placed in Thailand. Riley will be working with Dr. Boonlert of IPSR, and Lauro with Dr. Chek, Director of the Bureau of Public Health in Bangkok.

Thailand is an area of major interest and concern to the CPC. Excellent relationships exist and there are many opportunities for help especially in building up the much needed basic institutional supporting structure for Thailand's population programs and policies. So far, the AID Thailand Mission has appeared to be very insensitive to the needs for working with such institutions, and the processes involved. This has badly crippled the efficiency of the CPC and of other efforts.

m. UAR

CPC faculty members have assisted with many aspects of population program development in the UAR, and key UAR family planning officials have consulted or studied at Chapel Hill. A formal collaborative relationship exists with American University in Cairo, for exchange of faculty, and help in training junior staff and in field studies on population and family planning. Collaborative research and teaching activities are also undertaken with individuals in Cairo University, Ein Shams, and El Azhar University. Omran has completed a review of population trends and policy development in the Near East and in Egypt, which is in process of publication. Gadalla, associate

director of the AUC Social Research Center, worked with the CPC at Chapel Hill this year to analyze an extensive set of fertility data and to plan followup studies on population dynamics and population program and policy development, to be funded with Ford Foundation and AID support upon his return. Shanawany also worked this year at Chapel Hill on a Ford Foundation scholarship, in the area of population policy development and on plans for strengthening population education in Egypt. McLaughlin has worked with the National Family Planning program leadership on matters of program design and operations research, and will return this year for further work with the UAR on the national family planning program.

Through a request from the World Bank to the CPC and with support from UNFPA, three UNC faculty members (Dr. A. Omran, Dr. K. Omran, and Dr. C. Arden Miller) spent several weeks in the UAR this summer. Each served as a consultant to the UAR government on special aspects of its family planning program, for which additional support is being sought through a World Bank loan. It is expected that these consultant relationships between the CPC, the World Bank, and the government of the UAR will continue.

n. Venezuela

Allen and others at CPC worked with colleagues at the Instituto por Estudios Superiores de Administracion to develop a project to strengthen the administrative skills of professionals in the family planning sector, and to increase the involvement of administrative specialists in population matters. They also developed a training proposal with the Asociacion Venezolana de Planificacion Familiar to broaden the paraprofessional base of the family planning delivery system in Venezuela.

o. United States

The CPC's efforts are mainly internationally oriented, but effective pursuit of international work requires at the same time that the Center have some strong roots in the US. This is required for several obvious reasons: 1) research work on field problems often requires immediate access to field program situations having features similar to LDC areas, which can be found in this part of the US; 2) legitimation of collaborative work with overseas agencies and institutions often requires that we be doing similar studies here; 3) new methods and patterns developed here have, in some cases, very direct demonstration value for LDCs; 4) teaching programs here for international trainees require the development and use of live situations for purposes of demonstration and practical experience; 5) local support of CPC's work will also be influenced by the Center's capacity to respond to real local needs; and 6) for building institutions in LDCs that are responsive to local program needs, the capacity to demonstrate such linkages here is found to be an important asset.

To initiate the development of the required "field laboratory" situation, 211(d) funds were allocated at the outset for certain costs of basic data collection and to CPC staff engaged in related consultation and training activities. This type of expenditure was anticipated in the initial budget plan for the 211(d) grant and is completely consistent with the 211(d) goal of building basic institutional capacities. No AID funds were used to support

or subsidize local service programs. Now, the Center's US interests are coordinated by a separate US Programs Office, which is entirely financed by non-AID funds. Still, this whole area of work strongly supports and is essential to the Center's international program activities, in many ways, although not assisted by AID funds. Therefore, the further developments of this area of activity should be of interest and are summarized below.

It should be noted that the Carolina Population Center is located in an area with serious population problems: the southeastern region of the US has about 13 percent of the nation's population but accounts for over 30 percent of the nation's unwanted and high-risk births annually. Much of North Carolina's population, still 55 percent rural as compared with 25 percent for the USA, has problems recognizable by those from underdeveloped nations. It now also faces rapid urbanization problems, compounded by in-migration trends. Official mechanisms for population program and policy development are at an evolutionary stage quite comparable to many LDCs.

North Carolina: Demographic studies by Hamilton and Steahr on the state's population have built a reservoir of basic information about problems and trends which are transmitted through various reports and publications. The North Carolina Files developed by the Center provide a source of information about population characteristics and related agency developments in every county of the state, for use by students, researchers and concerned officials. Pilot projects in Caswell, Wake and Guilford Counties helped to establish demonstration and training sites and to develop training materials. An OEO-supported project now involving 19 rural counties is also seeking methods for improved delivery of services; it also provides training opportunities for about 20 students. Industrial settings are now being studied under a separate project, with help from the UNC School of Business Administration, to assess costs and possible benefits of providing family planning services in these locations. At the state level, studies and assistance at an early stage helped to solve some problems of inter-agency coordination.

A Governor's Committee on Population and the Family was formed and later supplanted by a task force for the development of a stage family planning program, which led to the award of the first HEW statewide family planning program grant to North Carolina. Within the statewide program, the Center has also helped build its evaluation system and its manpower training and development plans. The Center participates directly in orientation and training of various types of officials and professional workers throughout the state. The UNC Department of Obstetrics and Gynecology pioneered in providing abortion services in the state and is now helping to disseminate sterilization services. Public information on family planning is fostered through a speaker's bureau, a newspaper column, and dissemination of educational materials.

Education of special groups for family planning is advanced through several means. A pilot project with Shaw University has explored methods for reaching promiscuous teenagers. Strengthening the population content of undergraduate college curricula is the goal of an inter-campus population studies program which involves institutions throughout the state. The School of Education's Center for Population and Environmental Education is

particularly concerned with strengthening population education components of teacher training and community college curricula, and strengthening population education in school systems.

The process of development of broader population policies at the state, regional and national level is an increasing subject of study, training, and assistance.

Southeastern Region: The Center helped to organize the Southern Regional Demographic group, to help encourage stronger regional studies. Family planning program development in the region has been encouraged through assistance to O'Connor and others in the development in Atlanta of a prototype, computerized family planning service information system. Studies have been made of roles of existing workers, including the potential involvement in family planning of the remaining "granny" midwives in the area. Consultation has been provided to local OEO service projects and on the organization of statewide programs. Assistance is now provided to the Atlanta Regional Office of the Department of HEW, through Dr. Hall's membership on the Regional Task Force for Family Planning, the Advisory Committee of the Regional Family Planning Training Center, and his help in building a three-year regional plan for family planning. Educational materials from the Center are provided on request throughout the region. Population policy development for the region is a matter of increasing concern. The Center has helped to bring about the recent establishment of the Southern Growth Policies Board. This will be an inter-state compact, supported by the southern states with some initial backing from foundation sources, to help identify and advance appropriate population growth-related policies in the region.

National Level: Extensive studies by Udry, with HEW sponsorship, have sought to identify improved program modules for various special groups, to improve program evaluation methods, and to assess the effects of mass communication efforts in an extensive experiment involving twelve US cities. In March 1972, Hall arranged a meeting at Chapel Hill of directors of major family planning service projects throughout the United States to explore common problems; the group has organized itself as the Family Planning Forum. At a national level, the Center is represented on the Board of Planned Parenthood-World Population and the National Advisory Council of the Center for Family Planning Program Development. A number of CPC faculty have provided consultation services to the National Center for Family Planning Services and are represented on population-related committees and sections of the Center for Population Research in NIH. Freymann served in 1971 as Special Assistant to the Assistant Secretary for HEW, to help develop the first national family planning program plan. CPC concerns for population policy development at a national level are reflected by studies such as Bergman's doctoral work on US population policy process, by the work of Spengler and others on broader policy issues, and by representation from the CPC on the staff of the Commission on National Goals and consultation with the Commission on Population Growth and the American Future.

9. Services to Population-Related Agencies

In addition to service to domestic-oriented agencies, CPC Associates have served USAID in various advisory groups, consultancies and training

courses. CPC Associates have also served the International Planned Parenthood Federation, Ford and Rockefeller Foundations, Pathfinder Fund, World Council of Churches, IUSSP, and other non-governmental organizations.

The United Nations system is a special focus of concern and assistance by the CPC. The UN Fund for Population Activities has contracted with the CPC for basic organizational studies and assistance and for a special seminar on population program administration, to be held at Chapel Hill for leaders of national family planning programs of LDCs, in connection with an initial conference in New York in July 1972. The World Bank has made extensive use of CPC Associates for population study missions to India, Iran, Malaysia, and the Philippines. The United Nations Advisory Committee on the Application of Science and Technology to Development contracted with the CPC to help develop its reports on needs for further international action in the population field. The World Health Organization has used CPC staff to consult on various aspects of population statistics, education, manpower development, family planning program administration, human reproduction, and contraception research. UNESCO has utilized several CPC Associates to help in developing population education and mass communications work. The UNFPA, WHO, and ECAFE have called on the CPC Library for help. The FAO and ILO have utilized CPC staff for research and program development on population matters. CPC faculty here have also been involved in population aspects of the World Biological Program. High priority will continue to be given to strengthening population activities of the UN system.

IV. EXPENSES CLASSIFIED BY BUDGET AND PROGRAM CATEGORIES

The preceding narrative provides an updated review of accomplishments in FY 72. These activities obviously far exceed what can be reflected in a simple tabulation of 211(d) expenditures. As indicated earlier, the specific 211(d) grant expenditures have a vital "multiplier" effect. For accounting purposes, however, a listing and an analysis of expenditures follow in this section of the report.

Expenditures are classified in this section in two ways. The first classification follows the traditional budget categories of salaries, supplies, etc. The second classification follows a more programmatic approach, showing program expense areas and indicating the contribution of 211(d) funds to these functional areas.

A. Expenditures by Budget Category

The FY 71 report forecast obligations of \$525,000 for FY 72. Total obligations of 211(d) funds in FY 72 were actually \$516,112. Details of this 211(d) grant expenditure, grouped according to the University's budget object categories, are as follows:

	<u>FY 72 Forecast</u>	<u>FY 72 Actual</u>	<u>Over(under) Projection</u>
Salaries	\$ 400,000	\$ 388,221	\$ (11,779)
Social security and retirement	40,000	39,874	(126)
Consultants	15,000	11,325	(3,675)
Supplies	10,000	5,412	(4,588)
Travel	15,000	11,491	(3,509)
Other direct costs	40,000	33,408	(6,592)
Stipends, tuition and fees	2,000	24,285	22,285
Equipment	<u>3,000</u>	<u>596</u>	<u>(2,404)</u>
Total	\$ 525,000	\$ 514,612	\$ (10,388)

1. Salaries - \$388,221

The total salary expenditures of the CPC program, administered through the Center during 1971-72, amounted to \$2,179,504. Of this, \$388,221 or 18% was provided from the AID 211(d) grant resources. The other salary costs were largely covered by task-specific contracts or grants from governmental or private agencies, or by University sources. Ford Foundation grants covered 5% of salaries, Rockefeller Foundation grants 3%, NIH grants 4% and the remaining 70% came from the University and other sources. Of the 211(d) expenditures for salaries, approximately \$252,487 (65%) were applied to cover professional faculty referred to in Section III above and detailed by

department in the following functional breakdown of expenses. An amount of \$127,459 (33%) covered costs of supporting staff required for assistance in faculty teaching, research, and service activities. The remaining \$8,275 (2%) was used to pay for parttime assistance, particularly graduate students in the field of library work and statistical data processing.

2. Honoraria and Consultants - \$11,325

A total of 61 honoraria payments were made, primarily for experts invited to lecture and consult on specific aspects of the total program. Fees paid for such visitation and consultation averaged \$207 each. Of 61 payments, 34 were under \$100, 23 were between \$100 and \$500 and 4 were between \$500 and \$1,000.

3. Travel - \$11,491

During 1971-72 the Center covered costs of 127 domestic trips of UNC faculty, staff, consultants, population students, and visiting lecturers, at an average cost of \$90.48 per trip. The travel purposes included professional conferences, Center-sponsored seminars, field training and recruitment. No foreign travel was funded by the 211(d) grant during this year. However, since such travel reflects overseas interests of the Center, it is summarized in Appendix 9.

4. Other Direct Costs - \$33,408

This University category carries various other charges unascrivable to a specific account, and are detailed as follows:

Telephone	\$ 5,633
Xerox rental and related costs	8,874
Printing monographs	12,575
UNC duplicating, printing & photo service	3,182
Office machine maintenance	467
Postage	102
Subscriptions and books	1,546
Editing, art work & contract typing	583
Other miscellaneous items	<u>446</u>
Total	\$ 33,408

5. Tuition Fees and Stipends - \$24,285

The following expenditures were applied to trainees whose presence especially contributed to the Center's own institutional capacity and to building useful relationships with institutional collaboration abroad. Payments were made with AID approval through the Institute of International Education.

<u>Student</u>	<u>Stipend</u>	<u>Tuition & Fees</u>	<u>Total</u>
Azordengan, F.	\$ 1,913	\$ 1,888	\$ 3,801
Bahia, El-Tayeb		736	736
Martin, Jean	1,198	1,788	2,986
Sarangapani, U. D.		736	736
Sastry, K. R.	8,164	1,287	9,451
Suchindran, C. M.	3,571	1,531	5,102
Thangadorai, M.	<u>881</u>	<u>592</u>	<u>1,473</u>
Total	\$ 15,727	\$ 8,558	\$ 24,285

6. Equipment - \$596.00

Costs of space requirements continue to be covered from the University and other sources. Staff augmentation during the year required addition of some equipment items. Such items procured from 211(d) funds are of long-term usefulness and are listed below. Insurance, inventory and maintenance programs are in effect.

<u>Item</u>	<u>Cost</u>	<u>Manufacturer</u>
Addressograph cabinet	\$ 237.20	Pitney-Bowes
Secretarial transcribing equipment	<u>358.80</u>	Lanier Business Products
Total	\$ 596.00	

B. Expenditures by Programmatic Category

The programmatic profile of CPC expenditures presented below indicates subtotals of 211(d) expenditures with the overall CPC program, under four major operational areas.

		CPC Expenditures	From 211(d)
GRAND TOTALS		\$4,377,319	\$514,612
1. <u>Academic Programs Office</u>		36,176	36,142
<p>This division serves to mobilize on-campus teaching and research on population matters, and to provide a sound base for international service activities.</p> <p>CPC funds are provided for partial support of special study programs within different departmental disciplines. Departmental coordinators advise students with interests in the population field, assist in developing courses, field work and research, and maintain liaison with the overall program. The amount allocated for this purpose decreased in 1971-72 as departments absorbed the responsibility for continuing work stimulated by this support. However, this takeover has been slowed because of outside economic factors. Amounts allocated to different departmental programs during FY 72 are as follows:</p>			
	<u>Total</u>	<u>211(d)</u>	
a. Anthropology	16,269	3,992	
b. Biostatistics	17,610	7,591	
c. Ecology	6,462	4,962	
d. Economics	16,343	9,151	
e. Epidemiology	7,301	2,805	
f. Health Administration	23,791	14,412	
g. Health Education	4,080	4,080	
h. Maternal and Child Health	12,485	1,127	
i. Mental Health	5,236	3,232	
j. Nursing	21,359	17,686	
k. Obstetrics and Gynecology	15,247	12,635	
l. Political Science	12,710	6,526	
m. Psychology	32,370	22,958	
n. Religion	8,695	8,695	
o. Social Work	500	500	
p. Sociology	15,169	5,779	
q. <u>Training Programs and Fellowships</u>		209,217	47,992
<p>Described in Section III.B.6 and Appendices.</p>			
r. <u>Special Training Services</u>		6,277	1,933
<p>Described in Section III.B.6. and Appendices.</p>			

	CPC Expenditures	From 211(d)
<p>s. <u>Demographic Research and Services Unit</u></p> <p>This unit aims to (1) facilitate interdisciplinary studies of population dynamics; (2) provide basic data on field areas needed for action-research on family planning program and policy development in the U.S. and abroad; (3) provide information needed for field assignments of trainees from LDCs and the U.S.; (4) provide consultation on access and use of various demographic data and (6) continue cooperative efforts with departments of UNC, the Research Triangle Institute and others, in advancing population research theory and methods.</p>	45,397	29,481
<p>t. <u>Family Population Research</u></p> <p>This research program has sought to build greater understanding of family-level dynamics influencing fertility, and especially to analyze and solve problems of adolescent pregnancies and sex education. This effort has included several NIH-supported projects (1) studying family stresses and responses to disability, (2) analyzing problems and testing improved methods of promoting contraception among disadvantaged youth groups, and (3) developing a cross-national network of studies in this area.</p>	42,671	-0-
<p>u. <u>Reproduction and Contraception Research</u></p> <p>In addition to the applied work under the International Fertility Research Program and the basic research underway in the Laboratories for Reproductive Biology, a Rockefeller supported project has assisted in strengthening the clinical research unit in the Department of Obstetrics and Gynecology. Work in this unit has dealt with cryosurgery, reversible sterilization, laparoscopy, norgestrel implant studies, antigenicity of the trophoblast and on the uterine cervix as a potential local antibody secretor. The project involves collaboration with units engaged in studies of basic reproductive biology. It also helps to develop the interest of medical students in the field of reproductive research.</p>	51,587	-0-
<p>v. <u>Population Policy Research</u></p> <p>Basic research on different aspects of population policy development is now emerging from several sources. An NIH-sponsored project aims at developing better methods for identifying among key leadership groups and the general public: (1) levels of population awareness, (2) attitudes which can influence responses to present and potential population measures and (3) congruence between personal practices and population-related attitudes. This project, along with other efforts, aims to provide a sounder basis for developing and implementing population policies.</p>	16,364	-0-

	CPC Expenditures	From 211(d)
<p>2. <u>International Programs Office</u></p> <p>Although the Center's entire program is internationally oriented, this office is the point of immediate focus for international project development, country study programs, and overseas fellowships. With the development during 1971 of the AID-sponsored University Services Agreement, this office has this year added administrative and project development capacities which are necessary to strengthen area-specific planning groups, to link the existing University resources closer to LDC institutions and agencies for project development purposes, and to maintain the closer liaison with concerned offices in AID/Washington required for development and monitoring of specific projects.</p> <p>Project budget totals which are country-specific are first listed below, followed by interregional project categories. Brief comments are made on each; more details are available elsewhere.</p> <p>a. <u>Africa</u></p> <p>An AID-sponsored project aims at helping to build broad-based programs of population study at the University of Ghana and selected other African institutions. Another project has explored means of strengthening population and family planning content in African health training institutions.</p> <p>b. <u>Chile</u></p> <p>Contact is maintained with the population studies program at the University of Chile. The current project involves analysis of policy-relevant attitudes in Chile.</p> <p>c. <u>India</u></p> <p>As noted in Section III.8.f., CPC has continued involvements in India, helping with analysis of government programs and institutional development.</p>	<p>110,418</p> <p>101,878</p> <p>7,153</p> <p>70,435</p>	<p>-0-</p> <p>-0-</p> <p>-0-</p> <p>-0-</p>

	CPC Expenditures	From 211(d)
<p>d. <u>Iran</u></p> <p>Continuing consultation and help was provided to a number of Iranian agencies and institutions. With CPC staff assistance, a team of Iranian experts assessed national family planning activities and resources to provide a framework for further planning. At Tehran University, Isfahan University and Pahlavi University in Shiraz specific project plans were developed for possible international funding.</p>	11,748	-0-
<p>e. <u>U.A.R.</u></p> <p>Work neared completion on a comprehensive analysis of population problems and prospects in Egypt and other Near Eastern countries.</p>	25,307	-0-
<p>f. <u>Thailand</u></p> <p>Rockefeller and AID assistance was provided for development of Mahidol University's Institute for Population and Social Research. Also, a joint project with the Ministry of Health seeks more efficient patterns for use of family planning field workers.</p>	190,602	-0-
<p>g. <u>International Fertility Research Program</u></p> <p>This broad program includes a central data analysis service to facilitate field evaluation of new fertility control techniques, and an international group of study contributors. The Departments of Obstetrics and Gynecology and Epidemiology at UNC cooperate in field testing and training programs for newer methods of fertility control, including pregnancy termination, IUDs, sterilization and hormonal methods. The program will also be concerned with effects of the system of delivery on fertility control acceptance and results and implications for manpower and evaluation.</p>	560,709	-0-
<p>h. <u>Reversible Sterilization Studies</u></p> <p>New techniques for reversible vasocclusion in the males and tubal occlusion in the females are being developed, with a view to move beyond preclinical studies to collaborative clinical trials abroad.</p>	136,782	-0-
<p>i. <u>Laboratories for Population Statistics</u></p> <p>This program seeks to improve the quality of basic demographic data through field studies and demonstrations in a network of key collaborating agencies and institutions. The program is led by a control unit at Chapel Hill, developed in cooperation with the Department of Biostatistics. Projects are underway in the Philippines, Colombia, and in planning stages in three other countries.</p>	578,123	-0-

	CPC Expenditures	From 211(d)
<p>j. <u>Fertility Changes Estimation Methods</u></p> <p>This project aims to develop and disseminate more efficient methods for fertility changes in primary areas of LDCs where routine birth recording is deficient, especially through use of numerator analysis methods.</p>	44,939	-0-
<p>k. <u>Population Program and Policy Design</u></p> <p>This broad program has aimed to (1) analyze existing problems of family planning program and policy design, (2) suggest improved methods and models, (3) develop field tests and demonstrations of improved methods through interested overseas institutions and agencies, (4) build related training activities, (5) develop more general program and policy models which can be used as simulations for training and policy planning purposes, and (6) augment the supply of professional competence for international consultation in population program and policy development. The program builds upon relationships previously established by the Carolina Population Center with institutions and agencies abroad, in order to expand activities toward the achievement of the above objectives. It also has aimed to mobilize the talents of existing and new University faculty members for these objectives.</p>	602,428	-0-
<p>l. <u>Overseas Population Interns</u></p> <p>This project serves to strengthen the manpower pool for the population field by enabling qualified young professionals to obtain valuable field experience in LDC situations, and to contribute directly to field programs in a dozen locations.</p>	81,800	-0-
<p>m. <u>International University Population Program Development</u></p> <p>This project is assisting in the establishment and growth of programs of population research, teaching and service in key universities of LDCs. A senior advisory group includes the heads of eight LDC universities, and contributors from thirty LDC institutions participate in identifying common problems and useful solutions.</p>	42,153	-0-
<p>n. <u>Family Planning Teaching Materials Development</u></p> <p>The project, assisted by Ford Foundation, aims to build teaching materials especially for population program administrators in LDCs, using case methods, simulations and other techniques, and testing, producing and disseminating these through collaborating groups in LDCs.</p>	26,434	-0-

	CPC Expenditures	From 211(d)
o. <u>International Community Medicine and Population Manual</u> With sponsorship of the National Library of Medicine, a manual on community medicine is being produced especially for medical students and health personnel studying in or intending to work in LDCs. Particular emphasis is given family planning and population dynamics.	22,764	-0-
p. <u>Nursing and Family Planning Leadership Training</u> This project provides training and consultation to key educators, administrators and supervisors of nursing midwifery and related health personnel in LDCs, to help them strengthen the roles of such workers in family planning service programs.	38,476	-0-
q. <u>Industry and Population Research Development</u> The CPC continues efforts to involve industrial groups in family planning, including information, consultation and plans for demonstration projects.	1,500	-0-
r. <u>United Nations Studies</u> Special attention is being given to analysis of U.N. developments in the population field, and assisting where possible. Consultancy has been provided to the United Nations Fund for Population Activities on overall program planning, implementation and assessment, and organizational matters. Consultation and help are also given to a number of other U.N. bodies.	4,786	-0-
s. <u>Population Policy Consortium</u> This project aims to advance population policies especially by involving LDC scholars in policy relevant studies and helping them facilitate policy development processes. It involves an international consortium secretariat, seminars and exchange, and support for specific projects.	59,065	-0-

	CPC Expenditures	From 211(d)
3. <u>U. S. Programs Office</u>	40,385	24,591
<p>For most effective international work, the Center has had to develop access to its own immediate "field laboratory" situation. This is needed because (1) research work on field problems can often best be initiated in the population and program situations available nearby which have features similar to LDC areas, (2) legitimation of collaborative work with overseas agencies and institutions often requires that we be doing similar studies here; (3) new methods and patterns developed here often have direct demonstration value for LDCs, (4) teaching programs here for international trainees require the development and use of live situations for purposes of demonstration and practical experience, (5) for building institutions in LDCs that are responsive to local program needs, we must be able to demonstrate such linkages, and (6) local support of CPC's international work will also be influenced by the Center's capacity to respond to real local needs.</p> <p>To develop access to such local teaching and research field laboratory situations and to utilize these for international project purposes, some 211(d) funds were allocated initially toward certain costs of basic data collection and toward salaries of CPC staff engaged in consultation and training aimed at this purpose. This type of expenditure was anticipated in the initial budget plan for the 211(d) grant and is completely consistent with the 211(d) goals. <u>No AID funds have been used to support or subsidize local service programs.</u> By the end of FY 72, these staff costs could be taken over by the Center's U.S. Programs Office, and are now entirely financed by non-AID funds. Still, this whole area of work strongly supports and is heavily used in connection with the Center's international program activities, in many ways, although not assisted by AID funds. Projects funded from non-AID sources by the U.S. Programs Office are noted below. All have involved international trainees.</p>		
a. <u>Manpower Planning: N.C. Family Planning Program</u>	5,835	-0-
<p>This project has assessed family planning manpower needs in collaboration with state, regional, county and community agencies and organizations and developed a plan for manpower training and development.</p>		
b. <u>Evaluation Systems for N.C. Family Planning Program</u>	28,975	-0-
<p>This project helped to design an evaluation system for the N.C. Statewide Family Planning Program, in collaboration with state and local officials, with attention to operational and long-term goals.</p>		

	CPC Expenditures	From 211 (d)
c. <u>Caswell County Family Planning Studies</u>	6,606	-0-
<p>The Caswell County project helped to establish, in a very poor nearby rural area, a research, demonstration and training situation which has led to innovation in organizational, educational and service aspects of the state program.</p>		
d. <u>Family Planning Services for Youth in N.C.</u>	10,424	-0-
<p>This project is developing studies of the current level of family planning services available to youth, and plans to improve activities to meet the special needs of such groups.</p>		
e. <u>Improved Rural Family Planning Methods</u>	360,215	-0-
<p>This project, funded by OEO in July 1970, has sought to develop and demonstrate better methods of service delivery in rural areas, emphasizing consumer involvement and use of local outreach workers and health practitioners. The project involves a CPC unit for planning, training and evaluation, and three multicounty program areas, in the western, central and eastern parts of the state. The project budget includes actual costs of service delivery.</p>		
4. <u>Population Program Services Support</u>		
<p>These services are supportive of the entire program effort and are utilized by virtually all of the specific project activities. They have been described in earlier sections.</p>		
a. Population Library and Reference Services	191,828	33,392
b. Publications and Planning Unit	103,477	85,306
c. Educational Materials Unit	33,837	33,826
5. <u>Administration and Management</u>	254,921	95,818
<p>See Section IV.A. for detail.</p>		

V. PLANS FOR 1972-73

A. Organization

During FY 73, a main goal will be further strengthening of the capacities of the International Programs Office for project development and project implementation in LDCs. This becomes possible with the additional funding being made available for these purposes through the new University Services Agreement with AID. There is anxiety that this new arrangement will provide sufficient flexibility for effectiveness and that AID missions abroad will welcome the types of direct project development processes and relationships that are increasingly needed for success in this field.

The Center's Area Study Groups, for different country program areas, will be further strengthened in order to provide more support for planning and implementation of overseas work. In addition to "institution building" projects, which provide depth and continuity of assistance in building selected overseas institutional capacities, more attention will also be given to "network building" type of projects, which advance a specific aspect of the whole field through enlisting a network of overseas collaborators in comparative studies and exchange of experience.

The Center's on-campus teaching and research efforts will also be strengthened this year through formalization of a council of department chairmen who are concerned with application of their various disciplines to population studies. This should help to support and coordinate the population teaching and research commitments of various faculty members. Associates of the Center also now include participants from other campuses in the state, which broadens the teaching, research and service activities of the Center, but also expands the reservoir of talent potentially available for involvement in international and other projects.

The U.S. Programs Office of the Center will, it is hoped, attract increasing state and local support. At the same time, field "laboratory" situations in this region will continue to be used to backstop internationally oriented research, teaching and services. The Center's Leadership Council, made up of leading citizens in the state, will be increasingly involved in supporting program and policy developments in the state and region. They will sponsor a dinner meeting in October with Mr. John D. Rockefeller 3rd to discuss population policy challenges for the southeastern U.S.

B. Staff Development

New staff joining the International Fertility Research Program in 1972 include: Dr. David Edelman and Mr. Milton Lieberman in Biostatistics and Dr. William Brenner from Obstetrics. Also to be recruited are an Asian field program coordinator and an epidemiologist. In the PopLab program, Dr. Hugh Rose, Mr. Roe Goodman and Dr. Ralph Tomlinson will take foreign posts as resident project consultants. Dr. Joseph Spengler is assuming full-time work to strengthen the program in economics and demography, and he will also be especially concerned with development of population policy

studies. Other strengthening of staff during the year will be expected in policy studies and in the area of family planning program management and administration. The Business School faculty are also expressing increasing interest in further involvement in management, marketing and cost accounting aspects of population programs.

C. Library and Reference Services

The Library will continue to refine and expand its reference service capacity and its subject access and selection policies for the acquisition of relevant, high quality material. The area files on specific overseas country areas will be further developed, with emphasis on acquisition of fugitive and unpublished materials. Monthly mailing of acquisitions and other informational materials will be resumed on a permanent basis henceforth to be machine produced. The computerized retrieval system makes possible a new range of services, now to be explored and strengthened. The population thesaurus should be completed. Internships in population library science and continuation of the present traineeships are planned, along with an increase in consultation services to population libraries in LDCs. The bibliography series will be continued, and data collection for the second edition of the International Directory of Population Libraries and Information Resources will begin.

D. Publications

Publication is expected for eight to ten new monographs in the regular blue series, with an improved text design. Special reports and other studies in the green and gold series should also come to about ten in number. The reprint series should be reviewed and probably continued. New emphasis is proposed to be given to quarterly newsletters. Special attention will be given to interpretive materials about the Center and its programs, which have been relatively neglected in the past.

The Publications Program is proposed to be merged with the Educational Materials Unit, so as to combine activities in the broad area of communications. The present attention of the Educational Materials Unit on production of self-instructional materials should be strongly developed further in conjunction with an important new center of competence in this type of work which has recently been established at Chapel Hill. Links should also be strengthened with the School of Education and other relevant units on the campus, for work in the education and mass communications fields.

E. Demographic Research and Services Unit

The service activities of this unit will continue, in providing consultation to faculty, students and collaborating groups, on sources of demographic data, methods of data processing, and aspects of research design, analysis and interpretation. With the retirement of Dr. Hamilton, it is proposed that new recruitment be aimed especially at strengthening the concern of this unit with developing and assisting studies on aspects of population policies, internationally and in the U.S.

P. Training Activities

During 1972-73 about 140 graduate students are expected to specialize in population and family planning studies at the University. Of these, about 55 will complete their work by the end of the year. A number of new courses will be added during the year on topics including the economics of population, programs affecting human reproduction (in maternal and child health) and advanced studies in population policy development.

Regrettable is the fact that limitations of funds available for foreign fellowships have required the refusal of excellent candidates from key institutions and agencies in LDCs. About 40 advanced students from LDCs will be present in 1972-73 for training for leadership in building LDC institutions and agencies. However, despite continuing strong needs and demands, it is presently uncertain how many can be assured support in the following year.

Unfortunately, U.S. trainees are also being affected by federal government cutbacks in fellowship support. The Center's NIH research training grant renewal was approved for this year but could not be funded by NIH. This means a slowing also in development of specialized U.S. research competence in this field, at the same time that NIH indicates that their research grant fund applications are inadequately responsive to current needs. Meanwhile the federal funding of family planning service programs in the U.S. has also seriously neglected investment in development of administrative and service delivery manpower. Programs in the U.S. suffer badly because of this. Lack of traineeship funds for U.S. students means that mid-career types especially cannot get the advanced preparation they need. The Center has been able to attract some small amounts of private foundation funds for traineeships in this category, but they are grossly inadequate to the demands.

Conferences and workshops which are expected during 1972-73 include the following:

- (1) Workshop on Population Program Administration for Senior Administrators and Management Specialists from 12 developing countries, July 12-16, 1972 with UNFPA support.
- (2) Workshop on Family Planning in the Nursing Curriculum, for key nursing administrators and educators from LDCs, in September 1972, with AID support.
- (3) International Population Policy Consortium meeting in Dubrovnik, Yugoslavia, in October 1972, with AID support.
- (4) Conference on Abortion, for international leaders in the field, in March 1973 at Chapel Hill, cosponsored by the IUSSP and CPC/IFRP.
- (5) Inter-institutional Workshop on Population in the University Curriculum, for representatives from 12 campuses in North Carolina, in October 1972, and again in 1973.

(6) Conference of Heads of Universities Concerned with Population Studies, in Bangkok, 1973, under the International University Population Program Development project.

(7) PopLab Project Conferences, to be scheduled in 1973.

(8) Conference on Village-Level Motivational Systems for Family Planning, to be scheduled in 1973 at Chapel Hill, sponsored by the UNC Population Anthropology program.

(9) Workshop on Multidisciplinary Research Approaches in the Population Field, probably in June 1973 at Chapel Hill.

(10) Conference on Advances in Population and Political Science Research, probably in the spring of 1973 at Chapel Hill.

(11) Executive Program on Population Program Administration for key leaders and management specialists from LDCs in June or July of 1973.

Increasing attention henceforth will be given to developing short-term type training of various specialists in this field, and wherever possible in cosponsorship with collaborating institutions and agencies in LDCs.

Short-term training and orientation services in addition to the above are again expected to be arranged during 1972-73 at Chapel Hill for an estimated 150 persons from U.S. and overseas agencies.

G. Research Activities

Current trends in research have been noted in previous sections of this report. In the biomedical area, the IFRP is now in a good position to advance both its basic work on prostaglandin studies and international field studies on abortion, sterilization and other methods. In the demographic area, PopLab projects in the Philippines, Colombia and Morocco should begin to produce solid results, and new projects in Ecuador, Kenya, Nigeria and one Middle Eastern site should get underway. In population program administration, case study materials and other studies on managerial problems are in hand and should increasingly be used in training activities. In the population policy area, the International Population Policy Consortium should stimulate new research activities in a number of key locations in LDCs, and other new approaches to policy studies involving psychological, legal and economic concepts are also expected to emerge this year. Insofar as possible, research efforts will also be strengthened on aspects of international organization and technical assistance in the population field.

Research study groups are organized by the Center for FY 72-73 as follows: (1) Migration research, responding to needs for better theory and methods to understand population distribution problems, led by George Myers; (2) Population and Peace, to introduce population factors into the growing body of research on international tensions and conflict resolution, led by Edward Azar; (3) Implications of declining population growth, seeking means to identify and anticipate economic and other questions likely to arise as

fertility rates decline, led by Joseph Spengler; (4) Population ecology, aiming to integrate biological population dynamics theory into the approaches of other population researchers and policymakers, led by Alan Stiven; (5) Abortion studies, aiming to plan the further work needed on questions of measurement and of implications of different patterns of abortion use, led by Abdel Omran; and (6) Operations research in population programs, focused on reporting on and planning further work on practical problems of program planning and implementation, involving Jain, Business School faculty members, and others.

H. Field Program Relationships

International program activities will be very greatly advanced by the University Services Agreement arrangement which provides funding for new project development costs project implementation. Existing overseas project interests and trends, as described elsewhere, can be substantially accelerated. Detailed work plans have been submitted in this regard to the AID/Washington Population Office. Major foci of international work will continue to be Thailand, India, Iran, Egypt, Ghana, other countries where specific projects are emerging in Africa including Morocco, Kenya and Nigeria, and, in Latin America, Colombia, Venezuela and Brazil.

In the U.S., relationships with the Center's own "field laboratory" situation in North Carolina should become closer as the state moves forward in this field. The CPC will also provide technical assistance, under an arrangement with the HEW Region IV office, to family planning program activities in eight southeastern states. The Center has also worked on the formation of the Southern Growth Policies Board; research, training and service activities in collaboration with this Board henceforth should have importance not only for the U.S. but as a useful model for other developing areas.

I. Direct Services to Population-related Agencies

Supportive services will continue to be provided to the various parts of AID, as desired. CPC staff are encouraged to provide backstopping consultation assistance to other international agencies, and the heavy use by U.N. bodies including UNFPA, the World Bank, WHO, UNESCO, and others is expected to continue through the year. Though these services are hard to anticipate and manage along with other obligations, the Center feels strongly the need to help strengthen the U.N. commitment and effectiveness in this field.

J. Budget Projection

Cumulative expenditures so far under the 211(d) grant have reached a total of \$2,064,984. For fiscal year 1972-73, expenditures are now projected to be \$335,016. A breakdown of the 1972-73 budget projection is indicated below, followed by a five-year summary of projections and obligations:

Budget Projections 1972-73

Salaries	\$229,608
Social Security and Retirement	25,408
Honoraria and Consultants	10,000
Supplies	2,500
Travel	2,000
Other Direct Costs	36,000
Tuition, Fees and Stipends	29,000
Equipment	<u>500</u>
	\$335,016

Summary of Projections and Obligations

	<u>Initial Obligation Projections</u>	<u>Cumulative Totals</u>	<u>Obligations Incurred Totals</u>	<u>Cumulative Totals</u>	<u>Revised Obligation Projections</u>	<u>Cumulative Totals</u>
FY69	650,000	650,000	450,513	450,513	450,000	450,000
FY70	500,000	1,150,000	575,597	1,026,110	576,000	1,026,000
FY71	450,000	1,600,000	524,262	1,550,372	524,000	1,550,000
FY72	400,000	2,000,000	514,612	2,064,984	515,000	2,065,000
FY73	400,000	2,400,000	---	---	335,000	2,400,000

VI. FINANCIAL SUMMARY AND NEEDS

The 211(d) expenditures this year of \$514,612 may be compared with the total of \$4.3 million directly obligated by the Center during FY 72 for all population program costs. Of the total program expenditures this year, 12% came from the 211(d) grant funds; other support, mostly for project-specific grants and contracts, came from The Ford Foundation (6%), The Rockefeller Foundation (3%), other U.S. government projects (74%), and the University and other sources (5%).

In the previous year, FY 71, the total funds directly obligated were less, at \$2.8 million, and the percentage of 211(d) funds expended was higher, at 18.7%. For the next year, however, in FY 73, total expenditures will exceed \$5 million and the 211(d) budget of \$335,000 will fall to 6.7% or less of the total.

The FY 73 budget level of \$335,000 is lower than originally projected because of pressures for greater spending than expected during recent years. The sheer fact of an increasing load of special contract work also increases the needs for 211(d)-type expenditures on certain institutional supporting activities required to fill project needs and gaps not coverable from project funds. At the same time, expected funding assistance from other sources has not been forthcoming. Federal domestic program funds which were anticipated for population research and training and support of population research centers have been sharply limited. This Center has been approved for both a major population research training project and a population research centers grant, but NIH has been unable to fund either of these. Also, domestic family planning service program budgets have badly neglected institutional training and research support activities, to their detriment. Foundation sources have been strained because of the same shortfalls. State support for basic costs of this Center is gradually growing but has been limited by general economic conditions and will naturally focus more on U.S. service-type activities.

Incidentally, there is at the same time a feeling that some of this Center's capacities are still relatively underused, while AID may appear to turn for certain projects to organizations having less depth and where such support is unlikely to represent, concurrently, an investment in building long-term institutional commitments and capacities to serve the population field.

The University Services Agreement with AID has proved to be extremely helpful and will permit major strengthening of the Center's specific project development activities and its support of overseas projects. The "core support" component of the USA arrangement also gives relief from some of the basic expenses formerly covered under 211(d) grant funds.

However the USA and specific project grants still leave unfinanced some essential components of the Center's total program. They do not support basic teaching activities and services, nor the development of innovative research to explore important frontiers of the field, nor the basic investments in building capacities and staffing depth, as are still strongly needed. These innovative, adaptive, service oriented institutional capacities are also what we seek to demonstrate and help to build abroad. They are fundamental for effective institutional efforts and for the whole field.

World population problems will worsen over a long period ahead and will call for the strongest possible basic institutional supporting activities. AID's initial investment in institutional development here must ultimately be judged in this context. Early discussions of 211(d) support for the Center also indicated that a ten-year period of support might be desirable and feasible, as consistent with AID's own experience with institutional development processes. In another five years, this Center's basic structure and capacities should be stabilized and self-sustaining, but they are not yet at that point. Now, continuation of 211(d) type support for the Center over the next five years, at a proposed average level of about \$200,000 a year, will be crucial for maintenance of its present momentum and for fruition of its future contributions to the U.S. government and world population efforts.

THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL.

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DEPARTMENT/SCHOOL AFFILIATIONS OF ASSOCIATES
OF THE CAROLINA POPULATION CENTER

SEPTEMBER 6, 1972

SCHOOLS OF:

Business Administration	4
Education	7
Law	1
Library Science	<u>1</u>
	13

DEPARTMENTS OF:

Anthropology	5
Botany	2
City & Regional Planning	1
Economics	7
Geography	3
History	1
Religion	1
Political Science	4
Psychology	10
RTVMP	2
Sociology	7
Zoology	<u>1</u>
	44

OTHER CAMPUSES:

Appalachian State University	2
Duke University	4
Elon College	1
East Carolina University	3
Fayetteville State University	1
High Point College	1
Mars Hill College	1
N.C. Agri. & Tech. State Univ.	2
N.C. State University	2
Pembroke State University	1
Pfeiffer College	1
RTI	4
St. Augustine's College	1
UNC-C	3
UNC-G	<u>2</u>
	29

SCHOOL OF MEDICINE:

Anatomy	4
Family Medicine	2
Medical Studies	1
Newborn Services-NCMH	1
OB/GYN	6
Pediatrics	3
Pharmacology	1
Psychiatry	<u>2</u>
	20

SCHOOL OF NURSING:

3

SCHOOL OF PUBLIC HEALTH:

Biostatistics	9
Epidemiology	4
Health Administration	13
Health Education	3
Maternal/Child Health	9
Mental Health	4
Public Health Nursing	<u>4</u>
	46

MISCELLANEOUS:

Institute of Government	3
Operations Research	1
N.C. Statewide Family Planning Program	1
Institute of Nutrition	1
Division of Personal Health N.C. State Bd. of Health.	1
Health Service Rsrch. Center	1
CPC Staff	<u>4</u>
	12

GRAND TOTAL: 167

CAROLINA POPULATION CENTER

Faculty Associates: August 1972

<u>NAME</u>	<u>POSITION</u>	<u>DEPARTMENT</u>
Abernathy, James R.	Assoc. Prof.	Biostatistics
Adams, J. Stacy	Professor	School of Business
Allen, James E.	Assoc. Prof.	Health Admin.
Anderson, Donald N.	Professor	Sociology (MARS HILL)
Anderson, Richmond K.	Director, IPO	CPC
Appelbaum, Mark I.	Asst. Prof.	Psychology
Arvey, M. Dale	Professor	Biology (UNC-C)
Azar, Edward E.	Assoc. Prof.	Political Science
Balfour, Marshall C.	Visiting Prof.	Health Admin.
Bauman, Karl E.	Assoc. Prof.	Maternal/Child Health
Beach, Norton W.	Professor	Education
Bennett, D. Gordon	Asst. Prof.	Geography (UNC-G)
Bennett, H. Stanley	Professor	Anatomy
Berry, Sandra L.	Asst. Prof.	Nursing
Birdsall, Stephen S.	Assoc. Prof.	Geography
Blake, Robert R.	Lecturer	Health Education
Brown, Louie A.	Assoc. Prof.	Sociology (ASU)
Brown, Robert T.	Asst. Prof.	Psychology
Burden, Hubert W.	Professor	Anatomy (ECU)
Byrd, William C.	Dir. Cont. Ed.	Allied Health (ECU)
Clifford, William B.	Asst. Prof.	Soc./Anthrop. (NCSU)
Clinton, Richard L.	Asst. Prof.	Political Science
Cogswell, Betty E.	Asst. Prof.	Mental Health
Coley, Basil G.	Asst. Prof.	Economics (N.C.A.&T.S.U.)
Cope, William F.	Asst. Prof.	Sociology (High Point)
Coulter, Elizabeth J.	Professor	Biostatistics
Crist, Takey	Asst. Prof.	OB/GYN
Dahlstrom, W. Grant	Professor	Psychology
David, Abraham S.	Section Head	CPRS, (RTI)
Dawson, Leonard H.	Asst. Prof.	Health Education
Dial, Steve C.	Assoc. Prof.	Biology (Pfeiffer)
DiBona, J. E.	Professor	Education (DUKE)
Dillon, Martin	Asst. Prof.	Library Science
Dolan, Margaret B.	Professor	Public Health Nursing
Eckerman, David A.	Asst. Prof.	Psychology
Edmands, Elizabeth M.	Assoc. Prof.	Public Health Nursing
Elledge, Barry	Asst. Prof.	Economics (ASU)
Evans, John P.	Assoc. Prof.	Business Admin.
Farias, Hector	Asst. Prof.	Med. Studies Off.
Fishburne, John I.	Asst. Prof.	OB/GYN
Flash, William S.	Assoc. Prof.	Health Admin.
Fleming, William L.	Professor	Family Medicine
Florin, John W.	Asst. Prof.	Geography
Fogel, Catherine I.	Asst. Prof.	Nursing
Fortney, Judith	Fellow	Center for Aging and Human Development (DUKE)
French, Frank S.	Assoc. Prof.	Pediatrics
Freymann, Moye W.	Professor	Health Admin.
Frye, Bobbie	Instructor	Nursing

<u>NAME</u>	<u>POSITION</u>	<u>DEPARTMENT</u>
Galinsky, M. David	Assoc. Prof.	Psychology
Gentry, John T.	Professor	Health Admin.
Gould, F. J.	Professor	Operations Research
Gourley, Geraldine	Assoc. Prof.	Maternal/Child Health
Gruber, Felix J.	Asst. Prof.	Epidemiology
Gulick, John	Professor	Anthropology
Gustaveson, Patricia	Lecturer	Maternal/Child Health
Hafer, R. F.	Asst. Prof.	Anthropology
Hall, Francoise	Res. Assoc.	CPC
Hall, Thomas L.	Assoc. Prof.	Health Admin.
Hamilton, C. Horace	Visiting Prof.	Soc./Biostatistics
Hashim, James	Assoc. Prof.	RTVMP
Hawley, Amos H.	Professor	Sociology
Hawkinson, William P.	Assoc. Prof.	Education
Horvitz, Daniel G.	Deputy Dir.	Stat. Resch. Div.,(RTI)
Hounshell, Paul B.	Professor	Education
Hulka, Barbara S.	Asst. Prof.	Epidemiology
Hulka, Jaroslav F.	Assoc. Prof.	OB/GYN
Hurow, Arthur	Deputy Dir.	Ctr. for Pop. & Env. Educ.
Ingram, James C.	Professor	Economics
Insko, Chester A.	Assoc. Prof.	Psychology
Jain, Sagar C.	Professor	Health Admin.
Jerdee, Thomas H.	Professor	Business Admin.
Johnson, Rita R.	Assoc. Prof.	Family Medicine
Jones, Arthur	Consultant	CPC
Kaiser, Edward J.	Assoc. Prof.	City * Regional Planning
Kaluzny, Arnold J.	Assoc. Prof.	Health Admin.
Kessel, Elton	Lecturer	Health Admin.
Klemer, Richard	Professor	Child Dev.& Family Rel.(UNC-G)
Knauff, Lynn K.	Asst. Prof.	Maternal/Child Health
Knelson, John H.	Director	Newborn Services NCMH
Krusa, Hans E.	Deputy Dir.	CPC
Lachenbruch, Peter A.	Asst. Prof.	Biostatistics
Lance, Larry M.	Asst. Prof.	Sociology (UNC-C)
Lehnen, Robert G.	Asst. Prof.	Political Science
Lieth, Helmut	Professor	Botany
Linder, Forrest E.	Professor	Biostatistics
Liner, Charles D.	Lecturer	Institute of Government
Lingner, Joan W.	Instructor	Biostatistics
Lipsitz, Lewis	Assoc. Prof.	Political Science
Little, Bernadette G.	Asst. Prof.	Psychology
Loddengaard, Robert A.	Instructor	Health Admin.
LoLordo, Vincent M.	Asst. Prof.	Psychology
Lowman, Joseph	Asst. Prof.	Psychology
Lunde, Anders S.	Director	Off. of State Services (RTI)
		Nat'l. Ctr. for Hlth. Stat.
		Mental Health
		Hlth. Service Research Center
Lynton, Rolf P.	Assoc. Prof.	Anthropology
Madison, Don	Res. Assoc.	Ctr. for Pop.Res. & Serv.(RTI)
Marshall, John F.	Instructor	Anthropology
Mason, Karen O.	Res. Assoc.	Ctr. for Pop.Res. & Serv.(RTI)
McCormick, J. Frank	Professor	Botany
McEvoy, Frederick D.	Asst. Prof.	Anthropology
McFarland, William	Asst. Prof.	Economics

<u>NAME</u>	<u>POSITION</u>	<u>DEPARTMENT</u>
McLaughlin, Curtis P.	Professor	Business Admin.
Miller, C. Arden	Professor	Maternal/Child Health
Mongeau, Beatrice B.	Instructor	Public Health Nursing
Moriarty, Barry M.	Asst. Prof.	Geography
Morris, Naomi M.	Assoc. Prof.	Maternal/Child Health
Mosley, Kirk T.	Adjunct Prof.	Health Admin.
Myers, George C.	Professor	Sociology (DUKE)
Myers, Robert J.	Deputy Dir.	Poplab Program
Namboodiri N. Krishnan	Assoc. Prof.	Sociology
Nash, Arnold S.	Professor	Religion
Nash, Ethel M.	Clin. Assoc. Prof.	OB/GYN
Nayfeh, Shihadeh N.	Asst. Prof.	Pediat./Biochemistry
Naylor, Thomas H.	Professor	Economics (DUKE)
Nelson, Virginia	Assoc. Prof.	Public Health Nursing
Nidorf, Louis	Assoc. Prof.	Health Education
Noyes, Robert W.	Professor	Maternal/Child Health
Oettinger, Elmer R.	Assoc. Prof.	Public Law & Government
Omran, Abdel R.	Professor	Epidemiology
Omran, Khairia F.	Res. Assoc.	OB/GYN
O'Tuama, Lorcan A.	Asst. Prof.	Pediat. Medicine
Paydarfar, Ali A.	Lecturer	Sociology
Pearlman, William H.	Professor	Pharmacology
Perez-Reyes, Maria	Asst. Prof.	Psychiatry
Perry, H. Arnold	Professor	Education
Petrusz, Peter	Asst. Prof.	Anatomy
Pfouts, William	Professor	Economics
Pickett, Marvin	Coordinator	N.C.Statewide Fam.Plan.Prog.
Polgar, Steven	Professor	Anthropology
Pollitzer, William S.	Assoc. Prof.	Anatomy/Anthropology
Porter, Cedric Warren	Resident	OB/GYN
Purdy, Ross L.	Instructor	Sociology
Reed, John	Asst. Prof.	Sociology
Rent, George S.	Asst. Prof.	Sociology (UNC-C)
Robinson, Prezel R.	Professor	Sociology (ST.AUGUSTINE'S)
Scheffler, Richard M.	Asst. Prof.	Economics
Schneider, Howard A.	Director	Institute of Nutrition
Scott, R. Neill	Assoc. Prof.	Education
Scurletis, Theodore D.	Director	Div. of Personal Hlth.
Sheps, Mindel C.	Professor	N.C. State Bd. of Hlth.
Shriver, Donald W.	Assoc. Prof.	Biostatistics
Siegel, Earl	Professor	Religion (NCSU)
Slome, Cecil	Assoc. Prof.	Maternal/Child Health
Smallegan, Marian	Asst. Prof.	Epidemiology
Spengler, Joseph J.	Visiting Prof.	Mental Health
Stillman, Jeanne B.	Instructor	Economics
Stiven, Alan	Professor	Health Admin.
Stumpf, Walter E.	Assoc. Prof.	Zoology
Sullivan, John G.	Asst. Prof.	Anatomy
Sussman, Marvin	Visiting Prof.	Philosophy (ELON)
Tarascio, Vincent J.	Assoc. Prof.	Mental Health
Thiele, Ronald	Professor	Economics
Thomlinson, Ralph	Visiting Prof.	Allied Hlth.Social Prof.(ECU)
		Biostatistics

<u>NAME</u>	<u>POSITION</u>	<u>DEPARTMENT</u>
Thompson, Vaida D.	Asst. Prof.	Psychology
Trainer, Edward S.	Instructor	Health Admin.
Tulchin, Joseph	Assoc. Prof.	History
Turchi, Boone A.	Instructor	Economics
Udry, J. Richard	Professor	Maternal/Child Health
Uhlenberg, Peter R.	Asst. Prof.	Sociology
Verkuil, Paul	Asst. Prof.	Law
Wallace, Wesley H.	Professor	RTVMP
Warren, David G.	Asst. Prof.	Public Law & Government
Watkins, Ed	Dir.Human Serv.Inst.	Geography/Sociology (PEMBROKE)
Wells, H. Bradley	Professor	Biostatistics
Widmann, Donald E.	Asst. Prof.	Psychiatry
Wileman, Ralph E.	Assoc. Prof.	Education
Williams, Eugene	Director	Inst.Rsrch.(FAYETTEVILLE S.U.)
Wynn, Naomi W.	Dean	School of Nursing(N.C.A.&T.)

CAROLINA POPULATION CENTER
University of North Carolina at Chapel Hill

Associates of the Center

- ABERNATHY, James R.** - Assoc. Prof., Bios. B. S. (Bus. Admin.), 1951, Howard College; M.S.P.H. (Bios.), 1953 and Ph.D. (Bios.), 1965, Univ. of N.C. Interests: Demographic measurement; randomized response and paired choice methodologies.
- ADAMS, J. Stacy** - Prof., Psych. and Reynolds Prof., Applied Behavioral Science. B.A. (Romance Lang. & Psych.), 1948, Univ. of Miss.; M.A. (Psych.), 1955 and Ph.D. (Psych.), 1957, Univ. of N.C. Interests: Systems theory; growth; socio-technical systems.
- ALLEN, James E.** - Assoc. Prof., Health Admin. and Lecturer, Dept. of Religion. B.A. (Hist.), 1957, Univ. of Arizona; S.T.B., 1960 and Ph.D. (Soc. and Ethics), 1964, Boston Univ. M.S.P.H. (Family Planning Admin.), 1969, Univ. of N.C. Interests: Human values and population problems; development of national population policies; multi-agency approaches to family planning program development.
- ANDERSON, Donald** - Prof., Socio., Mars Hill College. M.A. (Soc. Ethics), Univ. of Chicago, Ph.D. (Soc. Ethics), Univ. of Chicago.
- ANDERSON, Richmond K.** - Director, International Programs Office, CPC. B.A. (Chem. & Physics), 1929, Cornell College; M.S. (Biochem.) 1931, Ph.D. (Biochem.), 1934 and M.D., 1937, Northwestern Univ.; M.P.H., 1948, Johns Hopkins; D.Sc. (honorary), 1958, Cornell College, Iowa. Interests: International population programs; nutrition and population.
- APPELBAUM, Mark I.** - Assoc. Dean, College of Arts and Sciences, Asst. Prof., Psych. B.S. (Chem.), 1963, Carnegie Institute of Technology; Ph.D. (Psychometrics & Clin. Psych.), 1968, Univ. of Illinois. Interests: Multivariate experimentation and statistical analysis especially in human abilities; innovative university curricular developments in population studies.
- AZAR, Edward E.** - Assoc. Prof., Poli. Sci. B.A., 1960, Amer. Univ. of Beirut; M.A., 1965, Univ. of the Pacific; Ph.D., 1969, Stanford. Interests: Interface between population research and international political research; population and peace research.
- BALFOUR, Marshall C.** - Visit. Prof., Health Admin. B.S. (Biol. & Pub. Health), 1918, Mass. Institute of Technology; M.D., 1926, Harvard Medical School, M.P.H., 1948 Johns Hopkins. Interests: Family Planning program design; population dynamics in Asia incentive systems.
- BAUMAN, Karl E.** - Assoc. Prof., Maternal and Child Health. B.A. (Soc.), 1961 and M.A. (Soc.), 1963, Univ. of Nebraska; Ph.D. (Soc.), 1965 Florida State Univ. Interests: Evaluation of family planning programs; population dynamics in Southeast Asia.

- BEACH, Norton W. - Dean, School of Educ. and Prof., Educ. B.A. (Bus. Admin.), 1938 and Ed.M. (Educ.), 1940, Boston Univ.; Ed.D. (Educ.), Teachers College, Columbia Univ. Interests: Population education program methods and designs.
- BENNETT, D. Gordon - Asst. Prof., Geog., Univ. of N.C. at Greensboro. B.A. (Geog.), 1963, East Carolina Univ.; M.A. (Geog.), 1965 and Ph.D. (Geog.), 1968, Michigan State Univ. Interests: Population geography; N.C. county population and development studies.
- BENNETT, H. Stanley - Prof. and Chrmn., Anat. Director, Laboratories for Reproductive Biology. A.B. (Chem.), 1932, Oberlin College; M.D., 1936, Harvard Univ. Interests: Fundamental research development in reproductive biology.
- BERRY, Sandra L. - Asst. Prof., Nursing. B.S.N. (Nursing), 1958, Roberts Wesleyan College; M.S.N. (Nursing), 1966, Washington Univ.; M.S.P.H., 1970, Univ. of N.C. Interests: Nursing roles and education in family planning; methods of nursing education, especially programmed instruction materials.
- BIRDSALL, Stephen S. - Assoc. Prof., Geog. B.A. (Earth Sciences), 1962, Antioch College; M.A. (Geog.), 1964 and Ph.D. (Geog.), 1968 Michigan State Univ. Interests: Population movement and population pressure; early slave migration in the U.S.
- BLAKE, Robert R. - Director, Educ. Materials Unit, CPC and Lecturer, RTVMP and Health Educ. A.B. (Educ.), 1953 and M.A. (Educ. Admin.), 1958, California State College. Interests: Development and evaluation of mass media approaches in family planning; distribution systems for non-medical contraceptives; attitudinal studies related to educational materials; development of hardware/software education facilities to serve Asian regions.
- BROWN, Louie A. - Assoc. Prof., Socio., Appalachian State University. B.S. (Soc. Sci.), 1961, Piedmont College; M.A. (Socio.), 1963, Univ. of Va.; Ph.D. (Socio.), 1970, Univ. of Ky. Interests: Demography: Areas of Fertility and Migration
- BROWN, Robert T. - Asst. Prof., Psych, A.B. (Psych.), 1961, Hamilton College; Ph.D. (Psych.), 1966, Yale Univ. Interests: Population density effects on physiology, behavior, and reproduction; interaction between density, availability of food and reproduction.
- BURDEN, Hubert W. - Dept. of Anat., East Carolina Univ., Greenville. A.B. (Biol.), 1965, Atlantic Christian College; M.A. (Biol.), 1967, East Carolina Univ.; Ph.D. (Anat.), 1971, Tulane Univ. Interests: Basic biology and population dynamics; peripheral autonomic nervous system and reproductive functions.
- CLIFFORD, William B. - Asst. Prof., Soc. and Anthro., N.C. State Univ. B.S. (Biol.), 1963, Grove City College; M.A. (Soc.), 1965, West Virginia Univ.; Ph.D. (Soc.-Soc. Demog.), 1969, Univ. of Kentucky. Interests: General demography and fertility; implications of recent population changes in N.C.; differentials in fertility behavior among low-income white, black and Indian groups.

- CLINTON, Richard L. - Visit. Asst. Prof., Poli. Sci., B.A. (Span.), 1960, M.A. (Hist.), 1964 and M.A. (Latin American Area Studies), 1964, Vanderbilt Univ.; Ph.D. (Poli. Sci.), 1971, Univ. of N.C.
 Interests: Population policy formation process, particularly in Latin America; normative political implications of population growth.
- COGSWELL, Betty E. - Asst. Prof., Mental Health and Family Medicine. A.B. (Eng.), 1952, Goucher College; M.S. (Rehab. Coun.), 1958, N.C. State Univ.; Ph.D. (Soc.), 1965, Univ. of N.C. Interests: Medical sociology; adolescent sexual behavior and pregnancies in disadvantaged groups; cross-national studies on family dynamics; international family planning programs.
- COLEY, Basil G. - Asst. Prof., Econ., N.C. Agricultural & Technical State Univ., B.S. (Agri. Econ.), 1961, N.C. A. & T. State Univ.; M.S. (Agric. Econ.), 1962, Penn. State Univ.; Ph.D. (Gen. & Agri. Econ.), 1971, Univ. of Illinois.
- COPE, William F. - Asst. Prof., Sociology, High Point College. A.B. (Soc./Psych.), 1963, High Point College; M.S. (Socio.), 1964, Trinity Univ.; Post Masters: Univ. of N.C.-Ch., summer 1966 - Univ. of Georgia, summer 1969.
- COULTER, Elizabeth J. - Assoc. Prof., Econ. and Assoc. Prof., Bios. A.B. (Soc. Sci.), 1941, Swarthmore College; A.M. (Econ.), 1946 and Ph.D. (Econ.), 1948, Radcliffe. Interests: Evaluation of health and family planning programs; economic costs of illness and health care; methods of study of vital events; out-of-wedlock births.
- CRIST, Takey - Asst. Prof., Ob./Gyn. and Asst. Prof., Health Educ. A.B. (Phil.), 1959 and M.C., 1965, Univ. of N.C. Interests: Sex education and prevention of unwanted pregnancy.
- DANLSTROM, W. Grant - Prof., Psych. A.B. (Psych.), 1941, Univ. of California at L.A.; M.A. (Psych.), 1944 and Ph.D. (Psych. & Neuropsychiatry), 1949, Univ. of Minnesota. Interests: Population aspects of human sexual behavior and sex role patterns; psychological correlates of migration.
- DAVID, Abraham S. - Section Head, Population Planning and Statistics, The Center for Population Research and Services, Research Triangle Institute and Adjunct Assoc. Prof., Health Admin. B.S. (Ag.Sci), 1958 and M.Sc. (Ag. Sci.), 1960, Purdue Univ.; Ph.D. (Econ.), N.C. State Univ.; M.S.P.H. (Pop. Prog.), 1968, Univ. of N.C. Interests: Economic and systems studies on population policy; operations research in population programs.
- DAWSON, Leonard H. - Asst. Prof., Health Educ. A.B. (Elem. Educ.), 1960, Univ. of Kentucky; M.S.P.H., 1963, Univ. of N.C. Interests: Utilization of community aides for family planning program acceptance and approaches to newly married couples, high parity women; education interventions, stimuli and constraints of program acceptance.

- DIAL, Steve C. - Assoc. Prof., Biol., Pfeiffer College. A.B. (Biol.), 1959, Pfeiffer College; M.S. (Biol.), 1961 and Ph.D. (Biol.), 1969, Univ. of S. C. Interests: Human ecology, with emphasis upon the population problems of the world.
- DILLON, Martin - Asst. Prof., Library Science and Information Science. B.S. (Eng.), 1961, Canisius College; Ph.D. (Eng.), 1967, State Univ. of N.Y. at Buffalo. Interests: Application of computer retrieval methods to the population information field.
- DOLAN, Margaret B. - Prof. and Head, Public Health Nursing. A.A. (Liberal Arts), 1932, Anderson College; B.S. (Nursing), 1935, Georgetown Univ.; B.S.P.H.N., 1944, Univ. of N.C.; M.A. (Educ.), 1953, Columbia Univ.; LL.D. (Honorary), 1970, Duke Univ. Interests: Nursing roles in family planning; international nursing and family planning.
- ECKERMAN, David A. - Asst. Prof., Psych. A.B. (Psych.), 1961, Hamilton College; M.A. (Psych.), 1963 and Ph.D. (Psych.), 1966, Columbia Univ. Interests: Methods of sex education; family planning.
- EDMANDS, Elizabeth M. - Assoc. Prof., Public Health Nursing and Assoc. Prof., Maternal and Child Health. B.S. (Public Health Nursing), 1943, Univ. of Michigan; M.A. (Nursing Educ.), 1955, Columbia Univ. Teachers College. Interests: Approaches to teaching population and family planning in schools of nursing; nursing roles in family planning programs; family planning in occupational health.
- EDWARDS, Vivien - Asst. Prof., Allied Health and Social Professions, East Carolina Univ. B.S.N., 1968, Univ. of Wisconsin; M.P.H., 1970, Univ. of N.C.; M.S.P.H., 1971, Univ. of N.C.
- EVANS, John P. - Assoc. Prof., Bus. Admin. B.S. (Mechanical Engineering), 1960, M.S. (Industrial Engineering), 1962, and Ph.D. (Phil.), 1968, Cornell Univ. Interests: Program planning models for allocating resources in comprehensive population programs.
- FARIAS, Hector - Asst. Prof., Medical Studies. B.S. (Eng.), 1961 and M.S. (Eng.), 1965, Texas A & I Univ.; Ph.D. (Educ. Admin.), 1971, Northwestern Univ. Interests: Organizing disadvantaged communities for better use of health and family planning services.
- FISHBURNE, John I. - Asst. Prof., Ob./Gyn. A.B. (Chem.), 1959, Princeton Univ.; M.D., 1963, Medical College of S. C. Interests: Teaching and development of female sterilization procedures through laparoscopy.
- FLASH, William S. - Assoc. Prof., Health Admin. A.B. (Hist. and Gov. Econ.), 1948, M.P.A. (Public Admin.), 1950 and Ph.D. (Poli. Sci.), 1954, Harvard Univ. Interests: Comprehensive health planning involving policy development in health and population fields.
- FLEMING, William L. - Prof., Family Medicine. A.B. (Chem.), 1925, M.S. (Bacteriology), 1927, and M.D., 1932, Vandervilt Univ. Interests: Family planning and demography in teaching and research in family and community medicine; relationships of family planning and venereal disease control.

- FLORIN, John W.** - Asst. Prof., Geog. B.A. (Geog.), 1964, Univ. of Kansas; M.S. (Geog.), 1966, Penn. State Univ.; Ph.D. (in progress).
Interests: Medical geography; population geography; historical geography of Anglo-American migration and diffusion.
- FOGEL, Catherine I.** - Asst. Prof., Nursing. B.S. (Nursing), 1963 and M.S. (Public Health), 1968, Univ. of N.C. Interests: Ob./Gyn. nursing especially areas of family planning and abortion.
- FORTNEY, Judith** -
B.Sc. (Socio.), 1959, London School of Economics, Univ. of London; M.S. (Socio.), 1963, Univ. of Wisconsin; Ph.D. (Socio./Demography), 1971, Duke Univ. Interests: Mortality studies; psychological aspects of fertility and fertility planning; international migration of professionals.
- FRENCH, Frank S.** - Assoc. Prof., Pediatrics. A.B. (Biol.), 1951, Univ. of Kansas; M.D., 1956, Univ. of Rochester. Interests: Endocrine factors in sexual maturation and fertility.
- FREYMAN, Moya W.** - Director, CPC and Prof., Health Admin. B.S. (Zool.), 1945, Yale Univ.; M.D., 1948, Johns Hopkins Univ.; M.P.H., 1956 and Dr.P.H., 1960, Harvard Univ. Interests: International approaches to research, teaching and service in population fields; population theory; international development methodology.
- FRYE, Bobbie** - Instructor, Nursing. B.S.N. (Nursing), 1968, Washington Univ.; M.S. (Public Health Nursing Educ.), 1971, Univ. of N.C. Interests: Nurse practitioner roles in family planning; teaching on maternity, family planning, abortion, and human sexuality.
- GALINSKY, M. David** - Assoc. Prof., Psych. A.B. (Psych.), 1956, Duke Univ.; A.M. (Clin. Psych.), 1959 and Ph.D. (Clin. Psych.), 1961, Univ. of Michigan. Interests: Clinical psychology and family planning.
- GENTRY, John T.** - Prof., Health Admin. A.B. (Psych.), 1944, B.S. (Medical Sciences), 1948 and M.D., 1948, Washington Univ.; M.P.H., 1951, Harvard Univ. Interests: Population factors in health care planning; family planning in health services systems.
- GOODNIGHT, Barbara A.** - Assoc. Prof. and Chairman, Sociology, Univ. of N.C. at Charlotte. B.S. (Socio.), 1960, Texas Women's Univ.; M.A. (Socio.), 1962, Univ. of Louisiana; Ph.D. (Socio.), 1967, Univ. of La.
- GOULD, F. J.** - Prof., Statistics. B.S. (Biochem.), 1958, Univ. of Chicago; M.S. (Math.), 1962, Illinois Institute of Technology; Ph.D. (Math.), 1963 and Ph.D. (Bus.), 1967, Univ. of Chicago. Interests: Systems analysis and design applications to population planning and public policy.
- GOURLEY, Geraldine** - Assoc. Prof., Maternal and Child Health. Ph.B. (Social Work), 1935, Washburn College; M.A. (Soc. Work), 1942, Univ. of Chicago. Interests: Social welfare roles in family planning programs; poverty and fertility.

- GRUBER, Felix J. - Asst. Prof., Epid. B.S. (Science), 1955, Instituto Escuela, Caracas; M.D., 1961, Univ. Central de Venezuela, Caracas; M.S.P.H. (Public Health Admin.), 1964 and Dr.P.H. (Epid.), 1971, Univ. of N.C. Interests: Planning, development and evaluation of family planning programs; new methods of fertility control; migration and health; family studies.
- GULICK, John - Prof., Anthro. and Visit. Prof.; Population Anthro., Univ. of Isfahan, Iran. A.B., 1949, A.M., 1951 and Ph.D (Anthro.), 1953, Harvard Univ. Interests: Population anthropology; urbanization in Near East; population program acceptance.
- GUSTAVESON, Patricia - Lecturer, Maternal and Child Health. A.B. (Euthenics), 1952, Grinnell College; M.S.W., 1969, Univ. of N.C. Interests: Family planning/population in social work curriculum; social workers' roles in family planning services; rural family planning programs.
- HAFER, R. F. - Asst. Prof., Anthro. B.A. (Eng.), 1961, Univ. of Cincinnati; M.A. (Eng.), 1964, Duke Univ.; Ph.D. (Anthro.), 1971, Indiana Univ. Interests: Impact of environmental changes on community and population dynamics.
- HALL, Francoise - Research Assoc., CPC. B.S. (Physiology), 1953, McGill Univ., Montreal; M.D., 1957, Harvard Univ.; M.P.H., 1962, Univ. of Puerto Rico. Interests: Population policy studies; family planning program development; Latin America.
- HALL, Thomas L. - Deputy Director, CPC and Assoc. Prof., Health Admin. A.B. (Hist.), 1953, Reed College; M.D., 1957 and M.P.H., 1961 Harvard Univ.; Dr.P.H., 1967, Johns Hopkins. Interests: Family planning and health manpower; program administration, planning and evaluation.
- HAMILTON, C. Horace - Assoc. Director, CPC; Visit. Prof., Soc. and Bios. B.A. (Soc.), 1923, Southern Meth. Univ.; M.S. (Rural Soc.), 1925, Texas A & M; Ph.D. (Soc.), 1932, Univ. of N.C. Interests: Demographic research methods, especially migration; N.C. population dynamics; assessment of population program needs and effect.
- HASHIM, James - Assoc. Prof., RTVMP. B.A. (Eng.), 1955, Ithaca; M.A. (Theater Arts), 1960, Univ. of California at L.A.; D.F.A. (Playwriting & Dram. Arts), 1967, Yale Univ. Interests: Public service programming on TV and the filmed documentary; advertising techniques and consumer responses as potentially related to population programs as policies.
- HAWLEY, Amos H. - Assoc. Director, CPC and Prof., Soc. A.B. (Soc.), 1936, Univ. of Cincinnati; A.M. (Soc.), 1938 and Ph.D. (Soc.), 1941, Univ. of Michigan. Interests: Sociology and economic facts of population size; studies of population distribution; presently working on book on urbanization and human ecology.

HAWKINSON, William P. - Assoc. Prof., Educ. B.A. (Soc.), 1951 and M.A. (Soc.), 1954, Kent State Univ.; Ph.D. (Soc. and Anthro.), 1959, Ohio State Univ. Interests: Population education.

HORVITZ, Daniel G. - Deputy Director, Statistics Research Division, Research Triangle Institute. B.S. (Math.), 1943, Mass. State College; Ph.D. (Stat.), 1953, Iowa State College. Interests: Sampling theory and methods; design of large-scale social surveys in the field of health, economics, market research and demography; design of experiments, computer simulation models of population dynamics.

HOUNSHELL, Paul B. - Director, Institutes in Science and Assoc. Prof., Educ. B. S., 1955, M.Ed. (Educ.), 1956, Univ. of Virginia; Ed.D. (Educ.), 1959, Univ. of N.C. Interests: Population content development in science teaching.

HULKA, Barbara S. - Asst. Prof., Epid. and Director, Study on the Organization, Utilization, and Assessment of Primary Health Care. B.A. (Music), 1952, Radcliffe College; M.S., 1954, Julliard School of Music; M.D., 1959 and M.P.H., 1961, Columbia College. Interests: Relationships between organization of services and abortion procedures to complication rates and contraceptive acceptance.

HULKA, Jaroslav F. - Assoc. Director, CPC, Assoc. Prof., Ob./Gyn. and Assoc. Prof., Maternal and Child Health. B.S. (Psych.), 1952, Harvard Univ.; M.D., 1956, Columbia College of Physicians and Surgeons. Interests: Reversible sterilization; immunologic approaches to contraception; evaluation of techniques of therapeutic abortion; legal aspects of abortion; evaluation of family planning clinics.

HURON, Arthur - Deputy Director, Center for Population and Environmental Education, School of Educ., U.N.C. B.S. (Military Science), 1960, Univ. of Maryland; M.A. (International Relations), 1962, George Washington Univ.; Advanced Management Program, 1965, Harvard Univ.; Advanced Doctoral Student, Univ. of N.C. Interests: Population education curriculum in secondary schools and community colleges.

INGRAM, James C. - Prof., Econ. B.S. (Econ.), 1942 Univ. of Alabama; A.M. (Econ.), 1947, Stanford Univ.; Ph.D. (Econ.), 1952, Cornell Univ. Interests: International trade and economic development; strong interest in economic and population aspects of Thailand.

INSKO, Chester A. - Assoc. Prof., Psych. A.B. (Phil.), 1957, Univ. of California; M.A. (Psych.), 1958, Boston Univ.; Ph.D. (Psych.); 1963, Univ. of California. Interests: Basic social psychological dynamics of contraceptive use and fertility change.

- JAIN, Sagar C.** - Assoc. Director, CPC, Head, Program Development Office and Prof., Health Admin. B.A. (Econ.), 1950, St. Stephens College, India; M.A. (Labor Welfare and Personnel Mgmt.), 1952, Univ. of Delhi; M.S. (Industrial Relations), 1960, Univ. of Ill; Ph.D. (Organizational Behavior), 1964, Cornell Univ. Interests: Comparative studies of family planning programs; legislative process in abortion laws; application of systems approach to community-wide family planning and program design.
- JERDEE, Thomas H.** - Prof., Bus. Admin. B.A. (Psych., Bus. Admin. & Soc.), 1950, Gustavus Adolphus College; M.A. (Psych.), 1956 and Ph.D. (Personnel and Industrial Psych.), 1961, Univ. of Minnesota. Interests: Values and attitudes influencing mode of governance and acceptance of control; interested in level of concern as a factor affecting receptivity to population programs.
- JOHNSON, Rita E.** - Assoc. Prof., Family Medicine. A.A. (Soc.), 1953, B.A. (Soc.), 1956, M.A. (Soc. of Educ.), 1963, and Ed.D. (Curriculum and Behavioral Sciences), 1966, Univ. of California at L.A. Interests: Development of self-instructional materials and programmed instructional modules on population-related topics.
- JONES, Arthur** - Consultant, CPC. A.B. (Soc.), 1929, Oberlin College; Certificate, 1950, Northwestern School of Financial Public Relations. Interests: Legislative process in population program development in the U.S.
- KAISER, Edward J.** - Assoc. Prof., City and Regional Planning. B.A. (Arch.), 1958, Illinois Institute of Technology; Ph.D. (City and Regional Planning), 1966, Univ. of N.C. Interests: Intra-metropolitan residential mobility behavior; survey research and modeling for study of urban growth and change.
- KALUZNY, Arnold J.** - Assoc. Prof., Health Admin. and Visit. Scholar, Population and Social Research Center, Mahidol Univ., Bangkok, Thailand. B.S. (Econ.), 1959, Wisconsin State Univ.; M.H.A. (Hosp. Admin.), 1962 and Ph.D. (Medical Care Organization & Social Psych.); 1967; Univ. of Michigan. Interests: Studies of organizational and administrative aspects of family planning programs.
- KESSEL, Elton** - Director, International Fertility Research Program and Lecturer, Health Admin. B.A. (Econ.), 1940, Univ. of Chicago; M.D., 1952, Chicago Medical School; M.P.H. (Tropical Public Health), 1960, Harvard Univ. Interests: Family planning delivery systems, international fertility control field studies.

- KLEMER, Richard** - Prof. and Chrmn., Child Development and Family Relations, UNC-G. B.A. (Eng.), 1939, Univ. of Pittsburgh; Ph.D. (Psych. & Soc.), 1953, Florida State Univ. Interests: Educational and vocational aspirations of youth; services to older people; frustration tolerance levels and premenstrual tension; family planning and family relations.
- KNAUFF, Lynn K.** - Asst. Prof., Maternal and Child Health. B.A. (Eng.), 1957, St. Lawrence Univ.; M.S.P.H., 1970, Univ. of N.C. Interests: Family planning program development and administration particularly in the rural southeastern U.S.A.
- KNELSON, John H.** - Director, Newborn Services, NCMH and Chief, Bio-Medical Research, National Environmental Research Agency, Environmental Protection Agency. B.A. (Pre-med.), 1955, Manchester College; M.D., 1960, Northwestern Univ.; M.P.H. (Epid.), 1967, Univ. of Michigan. Interests: Demographic factors in neonatology; demographic considerations in bio-environmental research.
- KRUSA, Hans E.** - Deputy Director for Admin., CPC. B.A. (Econ. & Spoken Eng.), 1937, St. Olaf College; M.S. (Retailing), 1938 and Ph.D. (Marketing), 1955, New York Univ.; M.S.P.H., 1968, Univ. of N.C. Interests: Population program administration especially management and marketing aspects.
- LACHENBRUCH, Peter A.** - Asst. Prof., Bios. B.A. (Math.), 1958, Univ. of California at L.A.; M.S. (Math.), 1961, Lehigh Univ., Ph. D. (Bios.), 1965, Univ. of California at L.A. Interests: Population simulation using digital computers; discriminant analysis; statistical methodology in population studies.
- LANCE, Larry M.** - Asst. Prof., Soc., UNC-C. B.A. (Math.), 1962 and M.A. (Soc.), 1966, Green State Univ.; Ph.D. (Soc.), 1970, Purdue Univ. Interests: General demography; urban sociology; population education.
- LEINEN, Robert G.** - Asst. Prof., Pol. Sci. A.B. (Pol. Sci.), 1964, De Paul Univ.; M.A. (Pol. Sci.), 1966 and Ph.D. (Pol. Sci.), 1968, Univ. of Iowa. Interests: Effects of population shifts from migration on political composition and behaviors in the U.S.; effects of population factors on judicial process.
- LIETH, Helmut** - Prof., Botany. Agricultural Apprentice in Unterborsch, Rheinisch, Berg. Kreis; Grillo High School, Gelsenkirchen; and Agricultural School, Lindlar; Philosophy and Science at the Philosophical and Theological College, Bamberg; Ph.D. (Botany), 1953, Univ. of Cologne. Interests: Primary productivity of the world; utilization of productivity in the biosphere; capacity of land; productivity models.
- LINDER, Forrest E.** - Assoc. Director, CPC, Prof., Bios. and Director, Laboratories for Population Statistics. B.A. (Psych. & Math.), 1930, M.A. (Psych. & Math), 1931 and Ph.D. (Psych. & Math), 1932, Iowa State Univ. Interests: Design of statistical systems for measurement of population change; theory of measurement of population change; development of field laboratories for population studies.

- LINER, Charles D.** - Lecturer, Institute of Govt. B.S. (Econ. & Bus. Admin) 1961, Univ. of Tennessee; M.A. (Econ.), 1968, George Washington Univ.; Ph.D. (Candidate), Washington Univ. Interests: Urban and regional economic growth and development and state and local government services; population factors of N.C.
- LINGNER, Joan W.** - Instructor, Bios. B.S. (Psych.), 1958 and M.S. (Psych.), 1962, St. Louis Univ.; Ph.D. (Demography), 1960, Univ. of Penn. Interests: Population measurement; migration dynamics.
- LIPSITZ, Lewis** - Assoc. Prof., Pol. Sci., B.A. (Pol. Sci.), 1957, Univ. of Chicago; M.A. (Pol. Sci.), 1959 and Ph.D. (Pol.Sci.), 1964, Yale Univ. Interests: Political theory and population policy, especially the issue of coercion and various alternatives and approaches in different societies.
- LITTLE, Bernadette G.** - Asst. Prof., Psych. A.B. (Psych.), 1966, Marywood College; M.S. (Psych.), 1968 and Ph.D. (Psych.), 1970, St. Louis Univ. Interests: Demographic and personality variables related to patterns of migration, fertility and reproduction.
- LODDENGAARD, Robert A.** B.E.E. (Elect. Engineering), 1949, City College of New York; M.S.P.H., 1971, Univ. of N.C. Interests: Population program planning, operations research and evaluation.
- LOLORDO, Vincent M.** - Asst. Prof., Psych. A.B. (Psych.), 1962, Brown Univ.; Ph.D. (Exper. Psych.), 1966, Univ. of Penn. Interests: Population control from the viewpoint of reinforcement theory.
- LOWMAN, Joseph** - Asst. Prof., Psych. A.B. (Psych.), 1966, Greensboro College; Ph.D. (Psych.), 1970, Univ. of N.C. Interests: Study of effects of premarital information; psychological antecedents of population movement, fertility, and social casuality rates.
- LUNDE, Anders S.** - Director, Office of State Services, National Center for Health Statistics, Research Triangle Park and Adjunct Prof., Bios. B.A. (Soc.), 1938, St. Lawrence Univ.; M.A. (Soc. & Demography), 1947 and Ph.D. (Demography-Population), 1955, Columbia Univ. Interests: Vital statistics, registration systems and measurement of differential fertility; international population programs with special reference to measurement of population growth in developing countries and obtaining vital statistics and census data by means of sample surveys.
- LYNTON, Rolf P.** - Assoc. Prof., Mental Health and Adjunct Prof., Policy Sciences Program, State Univ. of New York at Buffalo. B. Sc. (Econ.), 1944, London Univ.; M.A. (Soc.), 1969, Duke Univ; Ph.D. (Policy Sciences), 1970, State Univ. of New York at Buffalo. Interests: Studies of new careers in health and population fields; case studies of family planning programs; consultation process; institutional development in population fields.

- MADISON, Don - Research Assoc., Health Services Research Center. B.A. (Music Educ.), 1958, La Sierra College; M.D., 1965, Loma Lind College. Interests: Research migration of physicians and changing M.D./population ratios by area over time.
- MARSHALL, John F. - Instructor, Anthro. B.A. (Psych.), 1963, Baldwin-Wallace College; M.S. (Soc. Psych.), 1965; Penn State Univ.; Ph.D. (Anthro), (pending), Univ. of Hawaii. Interests: Population anthropology; factors affecting response to family planning programs in India.
- MASON, Karen O. - Research Assoc., Center for Population Research and Services, Research Triangle Institute. B.A. (Soc.), 1964, Reed College; M.A. (Soc.), 1966 and Ph.D. (Soc.), 1970, Univ. of Chicago. Interests: Sociological studies of fertility determinants; especially variations of women's roles and fertility behavior.
- MATHEWS, Betty P. - Prof., School of Allied Health and Social Professions, East Carolina Univ., Greenville. R.N., 1940, St. Elizabeth Hospital; A.A., 1950, Santa Rosa Junior College; B.S., 1952, M.P.H. (Health Educ.), 1953 and Dr.P.H. (Health Educ.), Univ. of California at Berkeley. Interests: Learning and change process; application of available knowledge to practical change problems in health and population; training systems, training designs and methods for national population programs.
- MCCORMICK, Frank - Prof., Ecology. B.S. (Biol.), 1958, Butler Univ.; M.S. (Biol.), 1960 and Ph.D. (Biol.), 1961, Emory Univ. Interests: Research and teaching of ecology.
- MCEVOY, Frederick D. - Asst. Prof., Anthro. B.A. (Anthro.), 1964, Univ. of Nebraska; Ph.D. (Anthro.), 1971, Univ. of Oregon. Interests: Demographic consequences of technological and economic change; economic and political conditions and migration in West Africa.
- MCFARLAND, William - Asst. Prof., Econ. B.A. (Pol. Sci.), 1957 and M.A. (Econ.), 1963, Miami Univ., Ohio; Ph.D. (Econ.), 1968, Univ. of Michigan. Interests: Demographic/economic models; urban economics.
- MCLAUGHLIN, Curtis P. - Prof., Bus. Admin. B.A. (Chem.), 1954, Wesleyan Univ.; M.B.A., 1956 and D.B.A., 1966, Harvard College. Interests: Production of information and professional services in engineering, health and education; population program operations research.
- MILLER, C. Arden - Prof., Maternal and Child Health and Prof., Pediatrics. M.D., 1948, Yale Univ. Interests: University population program development processes.
- MONGEAU, Betrice B. - Instructor, Public Health Nursing. B.S.P.H.N., 1955, M.P.H. (Public Health Admin.), 1956, and Doctoral Candidate (Soc.), 1957, Univ. of N.C.. Interests: Nursing research; roles of midwives.

- MORIARTY, Barry M. - Asst. Prof., Geog. B.S. (Earth Sciences & Geog.), 1956 and M.E. (Educ.), 1958, Mass. State Univ.; A.M. (Geog.), 1964, Boston College; Ph.D. (Geog.), 1970, Michigan State Univ. Interests: Urban economics and population growth and distribution.
- MORRIS, Naomi M. - Assoc. Prof., Maternal and Child Health. B.A. (Pre-med.), 1952 and M.D., 1955, Univ. of Colorado; M.P.H., 1951, Harvard School of Public Health. Interests: Evaluation of maternal and infant care projects; pregnancy spacing and outcome of pregnancy; fetal loss in Thailand.
- MOSLEY, Kirk T. - Adjunct Prof., Health Admin. A.B. (Chem.), 1927, Hendrix College; M.D., 1931, Tulane Univ.; M.P.H., 1940 and D.P.H., 1941, Harvard Univ. Interests: Operational research and the natural history of reproduction in the U.S. and Southeast Asia.
- MYERS, George C. - Prof., Soc., Duke University. B.A., 1953, Yale Univ.; M.A., 1960 and Ph.D. (Phil.), 1963, Univ. of Washington. Interests: Studies on migration, fertility and population redistribution.
- MYERS, Robert J. - Deputy Director, Poplab Program, U.N.C. A.B. (Econ.), 1926, Washburn Univ.; M.A. (Econ. Stat.), 1928 and Ph.D. (Econ.), 1937, Univ. of Chicago. Interests: Manpower and labor force component of population studies.
- NAMBOODIRI, N. Krishnan - Assoc. Prof., Soc. B.Sc. (Math.), 1950 and M.Sc. (Stat.), 1953, Univ. of Kerala; M.A. (Soc.), 1962 and Ph.D. (Soc.), 1963, Univ. of Michigan. Interests: Fertility, mathematical demography and statistics; Indian demography; family-size values.
- NASH, Arnold S. - Prof., Hist. and Soc. of Religion. M.Sc. (Chem.), 1930 and M.A. (Phil.), 1933, Univ. of Liverpool; M.Sc. Econ. (Soc.), 1937, London School of Economics; D.D., 1946, Coe College. Interests: Comparative religion; public policy and the population question; the roles of the university in teaching, research, and service in the population field.
- NASH, Ethel M. - Clin. Assoc. Prof., Ob./Gyn. and Clin. Assoc., Psychiatric Associates of Chapel Hill. B.A. (Hist.), 1931, Univ. of Liverpool; M.A. (Guid. & Coun.), 1949, Univ. of N.C. Interests: Marriage counseling; medical roles in family planning; why couples have babies.
- NAYFEH, Shihadch N. - Assoc. Prof., Pediatrics and Biochem. B.S. (Chem.), 1959, Normal Diploma (Teaching), 1959, and M.S. (Biochem.), 1961, American Univ. of Beirut; Ph.D. (Biochem.), 1964, Univ. of N.C. Interests: Steroid hormones in development and maturation of male reproductive functions; possible contraceptive agents to control sperm maturation in epididymis.
- NAYLOR, Thomas H. - Prof., Econ., Duke Univ. B.S. (Math.), 1958, Millsaps College; B.S. (Indust. Engineering), 1959, Columbia Univ.; M.B.A. (Quan. Bus. Analy.), 1961, Indiana Univ.; Ph.D. (Econ.), 1964, Tulane Univ. Interests: Application of econometrics and simulation methods to the problems of population program and policy planning.

- NELSON, Virginia - Assoc. Prof., Public Health Nursing. B.A. (Nursing), 1946, Stanford Univ.; B.S. (Public Health Nursing), 1949, Univ. of Minnesota; M.P.H. (Public Health), 1955, Univ. of Pittsburgh. Interests: short-course teaching and administration programs in public health nursing in family planning context.
- NIDORF, Louis - Assoc. Prof., Health Educ. B.A. (Psych.), 1954, Univ. of Oregon; M.A. (Psych.), 1956 and Ph.D. (Psych.), 1961, Clark Univ. Interests: Evaluation of population media and motivation for family planning.
- NOYES, Robert W. - Prof., Maternal and Child Health, Univ. of N.C. A.B. (Pre-med.), 1941, Univ. of California at Berkeley; M.D., 1943, Univ. of California at San Francisco. Interests: Reproductive physiology and contraception, population policy and program development problems.
- OETTINGER, Elmer R. - Assoc. Prof., Public Law and Govt. and Asst. Director, Institute of Govt. A.B. (Dram. Arts), 1934, J.D. (Law), 1939, M.A. (Dram. Arts), 1952, and Ph.D. (Eng.), 1966, Univ. of N.C. Interests: Consultant to governmental and civic groups with special concerns in population.
- OMRAN, Abdel R. - Prof., Epid. B. S. (Gen. Sci.), 1945, Minufia School, Egypt; M.D., 1952 and D.P.H. (Epid.), 1954, Faculty of Medicine, Cairo Univ.; M.P.H. (Epid.), 1956 and Dr.P.H. (Epid.), 1959, Columbia Univ. Interests: Epidemiological studies of human reproduction in Asia and Middle East; population problems and prospects in the Middle East; development of manual on community medicine for developing countries; health and disease patterns associated with demographic change; Moslem fertility.
- OMRAN, Khairia F. - Research Assoc., Ob./Gyn. M.D., 1957, Cairo Univ.; M.P.H. (Maternal and Child Health), 1958, Columbia Univ.; Dr.P.H. (Viral Epid.), 1965, Columbia Univ. Interests: Immunological approaches to fertility control.
- O'TUAMA, Lorcan A. - Asst. Prof., Pediatrics and Medicine. M.B., B.Ch., B.A.O. (Medicine), 1963, Univ. College, Dublin. Interests: Effects of malnutrition on developing nervous system; food and population.
- PAYDARFAR, Ali A. - Lecturer, Soc. B.A. (Psych. & Theology), 1950, Tehran Univ., Iran; B.L.L. (Law, Econ. & Pol. Sci.), 1954, Tehran Univ., Iran; M.A. (Soc.), 1960 and Ph.D. (Soc.), 1962, Univ. of Kentucky. Interests: Demography and family dynamics; population program organization and evaluation problems.
- PEARLMAN, William H. - Prof., Pharmacology. B.S. (Chem.), 1934, Brooklyn College; Ph.D. (Biochem.), 1940, Columbia Univ. Interests: Steroid sex hormone studies.
- PEREZ-REYES, Maria - Assoc. Prof., Psychiatry. B.S. (Biol.), 1945, Academia Hispano Mexicana; M.D., 1952, Universidad Nacional Autonoma de Mexico Facultad de Medicina. Interests: Adolescent contraception pregnancy and abortion.
- PERRY, H. Arnold - Prof., Educ. A. B. (Educ.), 1926 and M.A. (Educ.), 1933, Duke Univ.; Ph.D. (Educ.), 1943, Columbia Univ. Interests:

- PETRUSZ, Peter - Asst. Prof., Anat. M.D., 1963, Medical Univ. of Pecs, Hungary. Interests: Basic reproduction-related research in neuroendocrine control mechanisms and theory and application of biological and immunological hormone assays.
- PFOUTS, William - Prof., Econ. Interests: Demographic aspects of econometric models.
- PICKETT, Marvin - Coordinator, N.C. Statewide Family Planning Program and Adjunct Asst. Prof., School of Public Health; Research Assoc., Dept. of Applied Health Science, Tulane Univ. B.S. (Econ.), 1962, Louisiana State Univ.; M.S.W., 1970, Tulane Univ. Interests: Provision of field work experiences with NCSFPP for graduate students; operationalizing family planning work in local units.
- POLGAR, Steven - Assoc. Director, CPC and Professor, Anthro. M.A. (Anthro.), 1954 and Ph.D. (Anthro), 1956, Univ. of Chicago; M.P.H. (Health Admin.), 1957, Harvard Univ. Interests: Prehistorical, historical and cross-cultural data on population dynamics; evaluation of family planning programs, particularly cultural "hang-ups" of staff and policymakers; evolution and cultural change; African population studies.
- POLLITZER, William S. - Assoc. Prof., Anat. and Anthro. A.B. (Biol.), 1944, and M.A. (Biol.), 1947, Emory Univ.; Ph.D. (Human Variation), 1957, Columbia Univ. Interests: Genetics of human groups, effects of differential fertility and social change on genetic factors.
- PORTER, Cedric Warren - Resident, Ob./Gyn., N.C. Memorial Hosp. A.B., 1960, Harvard College; M.D., 1964, College of Phy. and Surgeons, Columbia Univ.; M.P.H., 1969, Harvard Univ., School of Pub. Health. Interests: Family Planning and health problems of less developed countries, especially Ethiopia and Liberia.
- PURDY, Ross L. - Instructor, Soc. B.A. (Soc.), 1964, Whitman College; M.A. (Soc.) 1967 and Ph.D. (Soc.), 1970, Univ. of Southern California. Interests: Occupational and geographic division of labor; urbanization.
- REED, John - Asst. Prof., Soc. B.S. (Poli. Sci. & Math.), 1964, M.I.T.; Ph.D. (Soc.), 1970, Columbia Univ. Interests: Regional sociology with particular reference to the American South.
- ROBINSON, Prezell R. - President and Professor, Sociology, St. Augustine's College. A.B. (Hist./Socio.), 1946, St. Augustine's; M.A. (soc. sci./educ admin.), 1951, Cornell Univ.; Ed.D. (Socio./Educ. Admin.), 1956, Cornell Univ.; D.C.L. (honorary) - Univ. of the South.
- SCHEFFLER, Richard M. - Asst. Prof., Econ. B. S. (Econ.), 1965, Univ. of Vermont and Hofstra Univ.; M.A. (Econ.), 1967, Brooklyn College; Ph.D. (Labor and Human Resources), 1971, New York Univ. Interests: Production and distribution of health and family planning services.
- SCHNEIDER, Howard A. - Director, Institute of Nutrition, U.N.C. B. S. (Chem.), 1934, M. S. (Ag. Chem.), 1936, and Ph.D. (Biochem.), 1938, Univ. of Wisconsin. Interests: Food and Nutrition in population ecology.

- SCOTT, R. Neill - Assoc. Prof., School of Educ. B.S., 1948, Western Carolina College; M.A., 1950, Peabody College; Ed.D., 1956, Univ. of Tennessee. Interests: Problems of family life and sex education.
- SCURLETIS, Theodore D. - Director, Division of Personal Health of the N.C. State Board of Health. B.S. (Chem.), 1947 and M.D., 1951, Univ. of Pittsburgh; M.P.H., 1972, Univ. Of N.C. Interests: Postneonatal, perinatal and neonatal mortality; health and family planning program development.
- SHEPS, Mindel C. - Prof., Bios. M. D., 1936, Univ. of Manitoba, Winnipeg, Canada; M.P.H., 1950, Univ. of N. C.; Diplomate, 1954, American Board of Preventive Medicine and Public Health. Interests: Population measurement; stochastic models in demography.
- SHRIVER, Donald W. - Director, Urban Policy Study and Visit. Assoc. Prof., Religion, Urban Affairs and Community Services Center, N. C. State Univ. A.B. (Hist./Phil.), 1951, Davidson College; B.D. (Theology), 1955, Union Theological Seminary; S.T.M. (Christian Ethics), 1957, Yale Univ. Divinity School; Ph.D. (Religion and Society), 1963, Harvard Univ. Interests: Political processes in urban planning and relationships between concepts of overpopulation and of "community".
- SIEGEL, Earl - Prof. & Chrmn., Dept. of Maternal and Child Health. B.S. (pre-med), 1944, Univ. of Pittsburgh; M.D., 1948, New York Medical College; M.P.H. (Maternal and Child Health), 1961, Univ. of California. Interests: Relationships between family planning and health; evaluation of population programs, family planning content in professional education.
- SLOME, Cecil - Assoc. Prof., Epid. M.B.Ch.B., 1944, Univ. of Capetown; D.P. H., 1954, Univ. of London. Interests: Epidemiologic aspects of health and population programs.
- SMALLEGAN, Marian - Asst. Prof., Mental Health. A.B. (Chem.), 1945, Hope College; M.A. (Chem.), 1947, Univ. of Illinois; Ed.D. (Adult Educ.), 1969, Boston Univ. Interests: Evaluative research on the effects of training interventions in family planning programs.
- SPENGLER, Joseph J. - Visit. Prof., Econ. A.B. (Econ.), 1926, A.M. (Econ.), 1929 and Ph.D. (Econ.), 1930, Ohio State Univ. Interests: Population theory, optimal population concepts; economic development.
- STILLMAN, Jeanne B. - Research Assoc., CPC. B.A. (International Relations), 1964, The American Univ.; M.S.P.H. (Health Admin.), 1971, Univ. of N.C. Interests: Education and delivery of family planning services to teenage population; East Africa program development in family planning.
- STIVEN, Alan - Prof. and Chrmn., Zool. B.S. (Biol.), 1957, Univ. of New Brunswick; M.A. (Zool.), 1959, Univ. of British Columbia; Ph.D. (Ecology & Biometrics), 1962, Cornell Univ. Interests: Experimental epidemiology; population integrative and regulatory mechanisms.

- STUMPF, Walter E. - Assoc. Prof., Anat. and Pharmacology. B.S. (Biol.), 1950, Univ. of Leipzig; M.D., 1952, Univ. of Berlin; Ph.D. (Pharmacology), 1967, Univ. of Chicago. Interests: Neurophysiology of sexuality.
- SULLIVAN, John G. - Asst. Prof., Phil., Elon College. B.A. (Phil.), 1958, Catholic Univ.; M. A. (Phil.), 1959, Catholic Univ.; Ordained Roman Catholic Priest - 1963; J.C.D. - Lateran Univ. - Rome 1966.
- SUSSMAN, Marvin B. - Visit. Prof., Mental Health and Chrnm., Soc., Case Western Reserve Univ. B. A. (Hist.), 1941, New York Univ.; M.S. (Group Work), 1943, George Williams College; M.A. (Soc. & Anthro.), 1949 and Ph.D. (Soc.), 1951, Yale Univ. Interests: Cross-national sociological research on the family; on the professions; intervention strategies for fertility change; organizational development for population programs.
- TARASCIO, Vincent J. - Assoc. Prof., Econ. B.A. (Econ.), 1961, San Jose State College; Ph.D. (Econ.), 1966 Rice Univ. Interests: Theoretical aspects of dependence between population change and economic and social change; age structure of population and relationship to political and social stability.
- THIELE, Ronald - Prof. and Dean, School of Allied Health and Social Professions, East Carolina Univ., Greenville. B.S. (Chem.), 1945 and M.D., 1948, Wayne State Univ.; M.P.H. (Maternal and Child Health), 1966, Univ. of California. Interests: Population content in training health and social professions.
- THOMLINSON, Ralph - Visit. Prof., Biostatistics. B.A. (Phil.), 1948, Oberlin College; M.A. (City Planning), 1949, Yale Univ.; Ph.D. (Socio.), 1960, Columbia Univ.
- THOMPSON, Vaida D. - Asst. Prof., Psych. and Deputy Director, Academic Programs Office, CPC. R.N., 1951, White Cross Hospital School of Nursing; B.S. (Nursing Educ.), 1958 and M.A. (Psych.), 1959, Florida State Univ.; Ph.D. (Psych.), 1968, Univ of N.C. Interests: Psychological theory in population research; attitudes toward population policies; differential attitudes of those wanting small or large families. Techniques of attitude change relative to family size, population policy and contraception.
- TRAINER, Edward S. - Instructor, Health Admin. A.B. (Amer. Lit. & Hist.), 1961, Harvard College; M.S.P.H. (Family Planning Admin.), 1968, Univ. of N. C. Interests: Development of better information systems and decision methods for administration of population programs, currently concerned with N.C., India and Korea.
- TULCHIN, Joseph - Assoc. Prof., Hist. B.A. (Hist.), 1959, Amherst College; Ph.D. (Hist.), 1965, Harvard Univ. Interests: Demographic aspects of research on urban problems in Latin America.

- TURCHI, Boone A.** - Instructor, Econ. A.B. (Econ.), 1963, Harvard Univ.; M.A. (Econ.), 1967, Boston Univ.; Ph.D. (Econ.), 1972 (expected), Univ. of Michigan. Interests: Fertility in the U.S. from economic-demographic frame of reference.
- UDRY, J. Richard** - Assoc. Director, CPC, Prof., Maternal and Child Health, and Prof., Soc. B.S. (Soc.), 1950, Northwestern Univ.; M.A. (Soc. Sci.), 1956, Long Beach State College; Ph.D. (Soc.), 1960, Univ. of Southern California. Interests: Biosocial aspects of reproduction including biological effects of contraceptive usage on sexual behavior; national evaluation of family planning programs; the relationship between pregnancy spacing and pregnancy outcomes.
- UHLENBERG, Peter R.** - Asst. Prof., Soc. B.S. (Math.), 1964, Wheaton College; M.A. (Demography), 1967 and Ph.D. (Demography), 1970, Univ. of California at Berkeley. Interests: Minority group fertility patterns in the U.S.; minority group status and fertility; African population study.
- VERROLL, Paul** - Asst. Prof., Law. A.B. (Eng.), 1961, College of William and Mary; LL.B., 1967, Univ. of Virginia; LL.M. (Trade Regulation), 1969, New York Univ.; M.A. (Econ. & Poli. Sci.), 1971, The New School for Social Research; J.S.D. Candidate New York Univ. Interests: Legal economic population policy problems in Latin America.
- WALLACE, Wesley H.** - Prof. and Chmn., RIVMP. B.S. (Educ.), 1932 and M.S. (Econ./Hist.), 1933, N.C. State Univ.; Ph.D. (Hist.), 1962 Duke Univ. Interests: Communications aspects of population--dissemination of information and training for use of media in population programs.
- WARREN, David G.** - Assoc. Prof., Public Law and Government, Institute of Government and Advisor to State Board of Health, State Dept. of Mental Health and State Task Force on Population Planning. A.B. (Econ.), 1958, Ohio Univ.; J.D. (Law), 1964, Duke Univ. Interests: Political and legal aspects of population policy development and implementation.
- WELLS, H. Bradley** - Assoc. Director, CPC and Prof., Bios. B.A. (Math.), 1950, Emory Univ.; M.S.P.H. (Bios.), 1953 and Ph.D. (Bios.), 1959, Univ. of N.C. Interests: Design of statistical systems for measurement of fertility trends and evaluation of family planning programs; applied research in non-sampling errors in fertility surveys.
- WIDMANN, Donald E.** - Asst. Prof., Psychiatry. A.B. 1956, Harvard Univ.; M.D. 1960, Western Reserve Univ. Interests: Psychiatric consultations for therapeutic abortion and teaching programs in therapeutic abortion for medical students.
- WILEMAN, Ralph E.** - Assoc. Prof., Educ. B.S. (Art Educ.), 1953, Otterbein College; M.A. (instructional Materials), 1961 and Ed.D., 1966, Teachers College, Columbia Univ. Interests: Self-teaching courses for teachers of population education.

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Technical State Univ. B.S. (Teaching in schools of Nursing), 1950,
New York Univ.; M.A. (Supervision and teaching in schools of
Nursing), 1954, New York Univ.; Administration, Professional
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Publications of the Carolina Population Center

Monographs

<u>Number</u>	<u>Author and Title</u>
1	Jaroslav F. Hulka. <u>Therapeutic Abortion. A Chapel Hill Symposium.</u> February 1969.
2	Sagar C. Jain and Steven W. Sinding. <u>North Carolina Abortion Law 1967. A Study in Legislative Process.</u> February 1969. (Out of print)
3	Robert R. Blake, ed. <u>Final Report--International Workshop on Communication Aspects of Family Planning Programs.</u> June 1969 (Out of print)
4	Charles B. Arnold, ed. <u>Medical Students and Population Research</u> July 1969.
5	Robert R. Blake, Chester A. Insko, Robert B. Cialdini and Alan L. Chaikin. <u>Beliefs and Attitudes about Contraception among the Poor.</u> August 1969.
6	Robert R. Blake, ed. <u>Family Planning Educational Materials: An Annotated Bibliography of Selected Items.</u> September 1969
7	Elizabeth M. Edmands, ed. <u>A Report on the First National Family Planning Conference for Nurse Educators in Baccalaureate Schools of Nursing.</u> 1970.
8	Patricia B. Gustaveson. <u>Implementation of Family Planning Policy by Public Welfare.</u> October 1970.
9	Steven Polgar, ed. <u>Culture and Population: A Collection of Current Studies.</u> January 1971.
10	A. S. David and R. S. S. Sarma. <u>Potential Socioeconomic Consequences of Planned Fertility Reduction, North Carolina--A Case Study.</u> January 1971.
11	Edward Pohlman. <u>Incentives and Compensations in Birth Planning.</u> March 1971.
12	Curtis P. McLaughlin and Edward S. Trainer. <u>Qualitative Evaluation of Family Planning Proposals and Programs: A Systems Approach.</u> D. G. Horvitz, F. G. Giesbrecht, B. V. Shah, and P. A. Lachenbruch. <u>Popsim, A Demographic Microsimulation Model.</u> April 1971.

Monographs

- | <u>Number</u> | <u>Author and Title</u> |
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| 13 | Harald Frederiksen with F. L. Dunn, Moyer W. Freymann, Sidney L. Kark, Kenneth W. Newell, E. J. Pampana, Anthony J. Radford, Carl E. Taylor, Joe D. Wray, and John B. Wyon. <u>Epidemiographic Surveillance: A Symposium</u> . October 1971. |
| 14 | Joseph J. Spengler. <u>Declining Population Growth Revisited</u> . May 1971. |
| 15 | Virupaksha Kothandapani. <u>Prediction of Contraceptive Behavior-- A Three Dimensional Approach</u> . September 1971. |
| 16 | Abdel R. Omran. <u>The Health Theme in Family Planning</u> . December 1971. |
| 17 | Anthony R. Measham. <u>Family Planning in North Carolina: The Politics of a Lukewarm Issue</u> . February 1971. |
| 18 | Robert E. Elder, Jr. <u>Development Administration in a North Indian State: The Family Planning Program in Uttar Pradesh</u> . 1972. |

CPC Papers--GOLD SERIES

Elihu Bergman. The Politics of Population USA: A Critique of the Policy Process. April 1971.

Sagar C. Jain. Comparative Study of Effective and Non-Effective Family Planning Program in India, Report of the Feasibility of Study Design. April 1971. (Out of print)

Charles T. Faneuff. Action Research: Development of a Pilot Model for Teaching Population Dynamics Information in the Government Schools of Mysore State, India. May 27, 1971.

Homa Ghasemi-Gonabadi (Asayesh). Iran Population and Family Planning Studies: An Annotated Bibliography. September 1971.

Richard L. Clinton. Problems of Population Formation in Peru. October 1971.

R. Kenneth Godwin. Attitudes and Behavior Related to Modernization. May 1971.

Curtis P. McLaughlin, David L. Kelly and Tanya M. McLaughlin. Family Planning Computer Gaming: The Quicktest Model. 1972.

Curtis P. McLaughlin. Applying Models to the Family Planning Programs of Developing Countries. 1972.

CPC Papers--GREEN SERIES

Robert R. Blake, ed. Final Report: International Workshop on Communications in Family Planning Programs. July 1971.

Moye W. Freymann. Approaches to the Human Fertility Problem. Prepared for the United Nations Advisory Committee on the Application of Science and Technology to Development. October 1968.

K. A. Pisharoti, K. V. Ranganathan, S. Sethu, and P. R. Dutt. The Athoor Experience: Implications for a Statewide Family Planning Programme. A joint publication by the Gandhigram Institute of Rural Health and Family Planning and the Carolina Population Center. February 1972.

K. K. Chang. A Decision Making System for A Family Planning Program: A Case Study of Taiwan. June 1972.

Other Publications

- Paul E. Zopf. North Carolina, A Demographic Profile. Chapel Hill, Carolina Population Center, 1965. (Available at \$5 per copy.)
- Daniel O. Price, ed. The 99th Hour, The Population Crisis in the United States. Chapel Hill, The University of North Carolina Press, 1967. (Available from UNC Press: paperback \$1.45; cloth \$3.95.)
- C. Horace Hamilton. Estimates of the Population of North Carolina Counties, 1966 and 1967 and of Components of Population Change Since 1960. Demographic Report H-1, Chapel Hill, Carolina Population Center, May 1968. (Available free.)
- Samuel M. Wishik and Jaroslav F. Hulka. Casebook for the Intrauterine Contraceptive Device. Chapel Hill, Carolina Population Center, May 1968. (Limited number available free.)
- C. Horace Hamilton. Estimates of the Population of North Carolina Counties, 1967 and 1968. Demographic Report H-2, April 1969, and Supplementary Tables, Demographic Report H-2(S), June 1969, Chapel Hill, Carolina Population Center. (Available free.)
- Moye W. Freymann. Cracking the World Population Problem: A U. S. Goal for the '70s. Prepared for the Presidential Task Force on International Development. Chapel Hill, U.N.C. Carolina Population Center, December 1969.
- C. Horace Hamilton and T.H. Ramsey. Estimates of the Population of North Carolina Counties, 1968 and 1969. Demographic Report H-3, State Planning Division, Department of Administration, Raleigh, and Carolina Population Center, University of North Carolina at Chapel Hill, March 1970. (Available free.)
- Charles B. Arnold, Ann Sauls, and Sylvain Fribourg. Family Planning in Tewkesbury County: A Casebook in Community Health. Chapel Hill, Carolina Population Center, 1970.
- Thomas E. Steahr. Chapel Hill: A Demographic Profile of a University Town. Chapel Hill, Carolina Population Center, December 1971.
- C. Horace Hamilton, ed. Source Tables: Educational Selectivity of Net Internal Migration in the United States and Its Four Major Regions During the Decade 1940-1950 by Age, Sex, and Color. Chapel Hill, Carolina Population Center, 1972.

Center Publications

Reprints of Publications of the Carolina Population Center Staff

1. J. Richard Udry and Naomi M. Morris. Frequency of Intercourse by Day of the Week, The Journal of Sex Research (1970).
2. J. Richard Udry. The Effect of the Great Blackout of 1965 on Births in New York City, Demography (1970).
3. N. Krishnan Namboodiri. On the Relation Between Economic Status and Family Size Preferences When Status Differentials in Contraceptive Instrumentalities are Eliminated, Population Studies (1970).
4. J. Richard Udry and Naomi M. Morris. Behavioral Effects of Contraception, Journal of Medical Education (1969).
5. Frederick S. Jaffe and Steven Polgar. Family Planning and Public Policy: Is the "Culture of Poverty" the New Cop-Out?, Journal of Marriage and the Family (1968).
6. Naomi M. Morris and J. Richard Udry. Variations in Pedometer Activity During the Menstrual Cycle, Obstetrics-Gynecology (1970).
7. Ethel M. Nash and Lois M. Louden. The Premarital Medical Examination: What Patients Desire, The Journal of the American Medical Association (1969).
- 8a. N. Krishnan Namboodiri. A Method of Comparative Analysis of Fertility Dynamics Represented by Sequences of Fertility Schedules, Demography (1970).
- 8b. N. Krishnan Namboodiri. A Statistical Exposition of the "Before-After" and "After-Only" Designs and Their Combinations, American Journal of Sociology (1970).
9. A.S. David. Nepal: National Development, Population, and Family Planning, Studies in Family Planning (1969).
10. Steven Polgar and Frederick S. Jaffe. Evaluation and Recordkeeping for U.S. Family Planning Services, Public Health Reports (1968).
11. J. Richard Udry, Naomi M. Morris, Karl E. Bauman, and Charles L. Chase. Social Class, Social Mobility, and Prematurity: A Test of the Childhood Environment Hypothesis for Negro Women, Journal of Health & Social Behavior (1970).
12. Oscar J. Sikes. Introducing Family Planning in a Rural Setting, International Journal of Health Education (1970).
13. Karl E. Bauman. Selected Aspects of the Contraceptive Practices of Unmarried University Students, American Journal of Obstetrics and Gynecology (1970).

14. Ali A. Paydarfar and Mahmood Sarram. Differential Fertility and Socioeconomic Status of Shirazi Women: A Pilot Study, Journal of Marriage and the Family (1970).
15. James E. Allen. How Catholics Are Making Up Their Minds on Birth Control, The Christian Century (1970).
16. J. Richard Udry and Naomi M. Morris. Effect of Contraceptive Pills on the Distribution of Sexual Activity in the Menstrual Cycle, Nature (1970).
17. T. O. Ling. Buddhist Factors in Population Growth and Control: A Survey Based on Thailand and Ceylon, Population Studies (1969).
18. John B. Graham. Population Studies: A Paradigm of Biomedical Research in the Coming Age, Alabama Journal of Medical Sciences (1969).
19. T. H. Naylor. Systems Research in Organization and Management: A Systems Analysis Approach to Population Control, Global Systems Dynamics (1969).
20. Chester A. Insko, Robert B. Cialdini, Robert R. Blake, and Stanley A. Mulaik. Attitude Toward Birth Control and Cognitive Consistency: Theoretical and Practical Implications of Survey Data, Journal of Personality and Social Psychology (1970).
21. Ethel M. Nash. The Physician's Role as Counselor: When, Where and How to Make Referrals, Clinical Obstetrics and Gynecology (1970).
22. Richard W. Taylor. Hindu Religious Values and Family Planning, Religion and Society (1969).
23. Earl Siegel, Donald Thomas, Robert Tuthill, Elizabeth Coulter, and Sidney Chipman. Factors Associated with Involvement of Low-Income Women in a Public Family Planning Program, American Journal of Public Health (1970).
25. James E. Allen. Population Control: A Bibliographic Overview, Choice (1971).
26. Charles H. Hendricks. Pregnancy Termination: The Impact of New Laws, The Journal of Reproductive Medicine (1971).
27. Steven Polgar and Frances Rothstein. Family Planning and Conjugal Roles in New York City Poverty Areas, Social Science & Medicine (1970).
28. J. Richard Udry, Srisomang Keovichit, Robert Burnight, Donald O. Cowgill, Naomi M. Morris, and Charas Yamarat. Pregnancy Testing as a Fertility Measurement Technique: A Preliminary Report on Field Results, American Journal of Public Health (1971).
29. A. E. Keir Nash. Going Beyond John Locke? Influencing American Population Growth, Milbank Memorial Fund Quarterly (1971).

30. J. J. Spengler. Population Control: Multidimensional Task, Vanderbilt Law Review (1971).
31. J. Richard Udry, Karl Bauman, and Charles Chase. Skin Color, Status and Mate Selection, American Journal of Sociology (1971).
32. Naomi Morris and J. Richard Udry. Sexual Frequency and Contraceptive Pills, Social Biology (1971).
33. N. Krishnan Namboodiri and N. M. Lalu. The Average of Several Simple Regression Estimates as an Alternative to the Multiple Regression Estimate in Postcensal and Intercensal Population Estimation: A Case Study, Rural Sociology (1971).
34. Arnold S. Nash. Food, Population and Man's Environment, Technology and Social Justice (1971).
35. Steven Polgar. United States: The PFFA Mobile Service Project in New York City, Studies in Family Planning (1966).
37. Earl Siegel, Donald Thomas, Elizabeth Coulter, Robert Tuthill and Sidney Chipman. Continuation of Contraception by Low Income Women: A One-Year Follow-Up, American Journal of Public Health (1971).
38. C. T. Faneuff. Requirements for Training Teacher-Educators and Teachers in Promoting Population Awareness Including (a) Subject-Content and Methodology and (b) Source Materials and Aids: A Suggested Plan, Journal of Family Welfare (1971).
39. Charles Hendricks. Effect of PGE₂ and PGF₂ on Uterine Contractility, Annals of the New York Academy of Sciences (1971).
40. Peter Uhlenberg. Demographic Correlates of Group Achievement: Contrasting Patterns of Mexican-Americans and Japanese-Americans, Demography (1972).
41. J. J. Spengler. Malthus on Godwin's Of Population, Demography (1971).
42. Arnold S. Nash with contributions by Forrest E. Linder and Moye W. Freymann. Innovative Organization for Population Research: Some Thoughts on Professors and Population Centers, Innovative Organization for Population Research (1971).
43. Udai Pareek and V. Kothandapani. Modernization and Attitude Toward Family Size and Family Planning: Analysis of Some Data from India, Social Biology (1969).
44. Ethel M. Nash. Premarital and Marital Counseling, Textbook of Obstetrics and Gynecology, Second Edition (1971).
45. Abdel R. Omran. The Epidemiologic Transition, Milbank Memorial Fund Quarterly (1971).

46. J. Richard Udry and Naomi M. Morris. A Spoonful of Sugar Helps the Medicine Go Down, American Journal of Public Health (1971).
47. John F. Marshall. A Conceptual Framework for Viewing Responses to Family Planning Programs, Journal of Cross-Cultural Psychology (1972).
48. N. Krishnan Namboodiri. Experimental Designs in Which Each Subject is Used Repeatedly, Psychological Bulletin (1972).
49. John B. Graham. The Relation of Genetics to Control of Human Fertility, Perspectives in Biology and Medicine (1971).
50. Karl E. Bauman and J. Richard Udry. Powerlessness and Regularity of Contraception in an Urban Negro Male Sample: A Research Note, Journal of Marriage and the Family (1972).
51. Richard L. Clinton. Portents for Politics in the Latin American Population Expansion, Annals of the Southeastern Conference on Latin American Studies (1972).
52. James E. Allen and Sagar C. Jain. Multiagency Participation in Family Planning Administration, Public Health Reports (1971).
53. Thomas E. Steahr and Calvin F. Schmid. College Student Migration in the United States, Journal of Higher Education (1972).
54. C. H. Hendricks, W. E. Brenner, L. Ekbladh, V. Brotanek, J. I. Fishburne, Jr. Efficacy and Tolerance of Intravenous Prostaglandins F₂ and E₂, American Journal of Obstetrics and Gynecology (1971).
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June 1972

POPULATION STUDENTS: FALL 1971 and SPRING 1972

<u>DEPARTMENT</u>	<u>STUDENT</u>	<u>COUNTRY</u>
<u>Anthropology</u> (21)	Axelrod, Paul	United States
	Beaubier, Geoffrey	United States
18 United States	Bond, James (O)	United States
1 United Kingdom	Brooks, Jane	United States
1 United Arab Republic	Cochran, Roger	United States
1 China (Taiwan)	Davis, Donna L. (G)	United States
	Davis, Dorothy (G)	United States
	Edgar, Ellen	United States
	Gamble, George	United States
	Grossmith, Christopher	United Kingdom
	Kay, Lynn (G)	United States
	Khattab, Hind A. S.	United Arab Republic
	Lott William	United States
	Lowenbach, Trude	United States
	McGinigle, Alan	United States
	Morris, Susan	United States
	Pelles, Theresa (O)	United States
	Riley, James N.	United States
	Settlemyre, Thomas	United States
	Sutton, Susan	United States
	Wang, Jen-ying	China (Taiwan)
<u>Biostatistics</u> (15)	Dorigo, David	Brazil
5 United States	El-Khorazaty, Mohammed	United Arab Republic
3 United Arab Republic	Folsom, Ralph	United States
1 Brazil	Fry, Robert	United States
1 Chile	Howell, Embry	United States
1 Colombia	Lasprilla, Enrique (G)	Colombia
1 Nepal	Lessler, Judith	United States
1 Pakistan	Mustafa, Ahmed	United Arab Republic
1 India	Nour, El-Sayed	United Arab Republic
1 Turkey	Rajbanshi, Bhabani	Nepal
	Rodriguez, German (O)	Chile
	Siddique, Mohammed	Pakistan
	Suchindran, C. M.	India
	Thomas, Michael	United States
	Yesilcay, Yasar	Turkey
<u>Economics</u> (1)	McIntyre, Robert	United States

(G) = graduated Dec. 1971
(O) = left program Dec. 1971

<u>DEPARTMENT</u>	<u>STUDENT</u>	<u>COUNTRY</u>
<u>Education (13)</u>	Bennard, Bruce	United States
7 United States	Foxx, Virginia	United States
2 India	Galosy, Judith	United States
2 Thailand	Hashim, Lisa	Sweden
1 Sweden	Laraqui, Rachida	Morocco
1 Morocco	Louden, Lois	United States
	Luikart, Clark	United States
	Mutdhika, Khemayokin	Thailand
	Prapapen, Suwan	Thailand
	Saltonstall, Caroline	United States
	Samuel, John	India
	Sarangapani, V. D.	India
	Shordt, Kathleen	United States
<u>Epidemiology (4)</u>	Abdoul-Fetouh, Saleh	United Arab Republic
3 United States	Brinton, Louise	United States
1 United Arab Republic	Goldberg, Marshall	United States
	Hogue, Carol	United States
<u>Geography (4)</u>	Chalupka, Edward	United States
4 United States	Enberg, Dennis	United States
	Huey, Mary	United States
	Triplette, Mary (O)	United States
<u>Health Administration (14)</u>	Boonyanitaya, Chaiyuth	Thailand
11 United States	Carey, Moses	United States
1 Pakistan	Dotterer, William	United States
2 Thailand	Jordon, John	United States
	June, Mary	United States
	Khan, Jahangir (G)	Pakistan
	Lazarus, Wendy	United States
	Loddengaard, Robert (G)	United States
	MacManus, Elizabeth	United States
	McKeithen, Edwin	United States
	Pongroch, Sookapat	Thailand
	Stone, Kathleen	United States
	Trainer, Edward	United States
	Van Wie, William	United States
<u>Health Education (18)</u>	Broome, Betty	United States
9 United States	Fassai-Nezhad, Oranus (G)	Iran
1 China (Taiwan)	Forberg, Lynn	United States
3 India	Gardner, Lytt	United States
2 Iran	Harrell, Betty Jo	United States
1 Malaysia	Hashim, Yunus Bin (G)	Malaysia
1 Turkey	Hayward, Mary	United States
1 Korea	Huang, Charles	China (Taiwan)
	Jacobs, Judith (G)	United States
	Lagevardi, Hossein	Iran
	Pederson, Christine	United States
	Shah, Ketki	India
	Sudersanam, Vijay (G)	India
	Thangadorai, M. (G)	India
	Tuncer, Ali	Turkey
	Webster, Wilbur (O)	United States
	Wells, Elizabeth (O)	United States
	Yun, Sung Hee	Korea

<u>DEPARTMENT</u>	<u>STUDENT</u>	<u>COUNTRY</u>
<u>Library Science</u> (1)	Tutihasi, Laurraine	United States
<u>Maternal & Child Health</u> (11)	Afrasiabi, Farajollah	Iran
6 United States	Amini, Ataollah	Iran
2 Iran	Gantz, Elaine	United States
2 India	Jeyaram, S. A.	India
1 Lebanon	Lehman, Phyllis	United States
	Mandetta, Anne	United States
	Poddar, Amal	India
	Rolett, Ronald	United States
	Sayegh, Juliette	Lebanon
	Sherman, Marion Huber (O)	United States
	Tuton, Sallie	United States
<u>Political Science</u> (8)	Gitlitz, John	United States
7 United States	Humberger, Edward	United States
1 Nepal	McCarthy, John	United States
	McGonigle, Michael	United States
	Sainju, Mohan	Nepal
	Schoultz, Lars	United States
	Stewart, Debra	United States
	Stubbs, Anne	United States
<u>Psychology</u> (7)	Everett, Peter	United States
6 United States	Konanc, Judy (G)	United States
1 Mexico	Pinner, Berna	United States
	Rall, Marilyn	United States
	Rendon-Barrea, Francisco	Mexico
	Songer, Elaine	United States
	Taylor, Lanelle	United States
<u>Sociology</u> (18)	Bravo, German	Colombia
12 United States	Buescher, Paul	United States
1 United Arab Republic	El Tayeb, Bahia	United Arab Republic
1 Colombia	Fleisher, Patsy	United States
3 India	Flynn, Cynthia	United States
1 United Kingdom	Frisbie, Parker	United States
	Godley, Carol	United States
	Hiday, Virginia	United States
	Howard, William	United States
	Hurst, Betty	United States
	Kukuk, Cris	United States
	Lalu, L. M.	India
	Millen, James	United Kingdom
	Radha Devi, D.	India
	Sastry, K. R.	India
	Wardwell, John	United States
	Young, Ervin	United States
	Young, Margaret	United States

Population Students: Spring 1972

<u>DEPARTMENT</u>	<u>STUDENT</u>	<u>COUNTRY</u>
Zoology (5) 5 United States	Desaix, Jean (O)	United States
	Hunter, James T.	United States
	Outen, Ronald	United States
	Roberts, Martha	United States
	Smythe, Robert	United States

DISTRIBUTION OF STUDENTS BY COUNTRY

Brazil	1
Chile	1
China (Taiwan)	2
Colombia	2
India	1
Iran	4
Korea	1
Lebanon	1
Malaysia	1
Mexico	1
Morocco	1
Nepal	2
Pakistan	2
Sweden	1
Thailand	4
Turkey	2
United Arab Republic	6
United Kingdom	2
United States	<u>95</u>

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January 27, 1972

SUGGESTED ELECTIVES
FOR STUDENTS SPECIALIZING IN
POPULATION STUDIES
ACADEMIC YEAR 1971 - 1972

ANTHROPOLOGY

- ANTH 55 Introduction to the Civilization of India & Pakistan (3)
Marshall. Fall
- ANTH 166 Intentional Culture Change (3) Hafer. Spring
- ANTH 170 Medicine and Anthropology (3) Leighton. Spring
- ANTH 172 Applied Anthropology - Family Planning (3) Polgar. Spring
- ANTH 250 Seminar in Medical Anthropology (3) Thomas. Spring
- ANTH 263 Seminar in Psychological Aspects of Modernization (3) Peacock. Spring
- ANTH 327 Seminar in Data Analysis in Anthropology Population. Gulick. Spring

BIOSTATISTICS

- BIOS 100 Public Health Statistics (3) Greenberg, Williams. Fall
103 Labs
- BIOS 145 Principles of Experimental Analysis (3) Kleinbaum. Spring
- BIOS 164 Sample Survey Methodology (3) Nathan. Spring
- BIOS 170. Survey of Population (2) Staff. Fall
- BIOS 221 Role of Health Statistics in Administration (2) Coulter. Spring
- BIOS 270 Demographic Techniques I (3) Abernathy. Fall
- BIOS 271 Demographic Techniques II (3) Sheps. Spring
- BIOS 274 Seminar in Population Statistics (3) Wells. Spring
- BIOS 275 Statistics in Population Programs (3) Abernathy. Spring

EPIDEMIOLOGY

- EPID 161 Epidemiology in Population Dynamics and Family Planning
(3) Cassel. Fall
- EPID 168 Behavioral Science Measurement in Health Programs and
Research (3) Jenkins, Zyzanski. Fall
- EPID 230 Applied Methods - Epidemiology and Health Service Research
(4) Cordle, Cornoni. Spring
- EPID 231 Measurements of Quality in Medical Care (2) Hulka. Spring
- EPID 260 Epidemiological Foundations for Disease Control Programs
(3) Spiers. Spring
- EPID 262 Epidemiology of Program Acceptance (2) Patrick. Spring
- EPID 264 Culture and Health (3) Kaplan. Spring
- EPID 266 Epidemiological Investigation (3) Tyroler. Spring

GEOGRAPHY

- GEOG 132 World's Food Supply (3) Hawley. Fall
- GEOG 150 Population Geography (3) Florin. Spring
- GEOG 153 Political Geography (3) Eyre. Spring
- GEOG 156 Natural Resources (3) Basile. Spring

HEALTH ADMINISTRATION

- HADM 100 Concepts of Health Administration (3) Schaefer. Fall
- HADM 101 Political, Economic and Social Perspectives on Health
Administration. (2) Flash. Fall
- HADM 111 Human Ecology & Health (3). Staff. Spring
- HADM 140 Problems in Health Administration (Family Planning) (1 or More)
141 Jain, Allen. Spring
142
- HADM 160 Seminar in Population Policy (2). Jain, Freymann, Staff. Fall
- HADM 180 Seminar in Comprehensive Family Planning (1) Phillips and Staff.
Fall
- HADM 200 Community Health Planning I (3) Schaefer and Staff. Spring
- HADM 260 Family Planning Program Development (3). Allen. Spring
- HADM 275 Politics & Government in Health Administration (2). Flash
Schaefer. Spring
- HADM 360 Research in Organization and Administration of Population
Programs (2 or more) Jain, Freymann, Allen. Spring

HEALTH EDUCATION

HEED 206 Education and Social Change in Population Planning (2) Dawson. Spring

JOURNALISM

JOUR 146 International Communication and Comparative Journalism (3)
Bishop. Fall

JOUR 151 Introduction to Mass Communication Research (3) McCombs. Fall-Spring

JOUR 165 Communication and Opinion (3) Shaw. Spring

JOUR 251 Media Research Methods (3) McCombs. Spring

JOUR 346 Seminar in International Communication (3) Cole. Spring

MATERNAL & CHILD HEALTH

MCH 103 Reproductive Physiology and Conception Control (2) Hulka. Fall

MCH 140 Problems in Maternal & Child Health (Family Planning) (1 or
more). Staff. Fall

MCH 210 Maternal & Child Health I (3) Noyes, Gourley, Morris. Fall

MCH 212 Social Programs and Services for Children and Their Families
(2) Gourley, Schaefer. Spring

MENTAL HEALTH

MENH 170 Mental Health Seminar I (Introduction to Community Mental
Health) (2). Wilson. Fall

MENH 234 Evaluation of Mental Health Programs (3) Brogan, Filley. Spring

MENH 257 Cross Cultural Consultation (Family Planning) (3) Lynton, Smallegan
Spring

POLITICAL SCIENCE

POLI 42 Population and Politics (3) Clinton. Spring

POLI 213 Public Administration and Policy Making (3) Daland. Fall

POLI 305 Seminar on Application of Political Behavior Research to
Public Problems (Population Policy) (3) Flash. Fall

POLI 330 Problems of National Development (3) Daland. Spring

PHARMACOLOGY

PHCO 106 Current Concepts in Molecular Endocrinology (2) Pearlman. Fall

PSYCHOLOGY

PSYCH 133 Introduction to Social Psychology (3) Thibaut, Thompson, Schopler,
Stacey. Fall

COURSE ELECTIVES 1971-72

PUBLIC HEALTH

- PUBH 101 Seminar in Population and Family Planning. (1) Polgar, Freymann, Thompson. Fall
- PUBH 102 Determinants and Consequences of Population Change (1) Lingner. Fall

RADIO, TELEVISION & MOTION PICTURES

- RTVMP 151 Introduction to Mass Communication Research (3) McCombs. Spring

RELIGION

- RELI 140 Comparative Religion and the Population Program (3) Nash. Spring
- RELI 191 Christian Ethics and Modern Problems (Population) (3) Allen. Fall

SOCIAL WORK

- SOC WORK 375 Training and Development (3) Cooke. Fall
- SOC WORK 377 Human Resource, Planning and Development (3) Cooke. Fall

SOCIOLOGY

- SOCI 54 Population Problems (3) Uhlenburg. Spring
- SOCI 168 City and Urbanization (3) Purdy. Spring
- SOCI 186 Population (3) Paydarfar (Spring); Hawley (Fall)
- SOCI 202 Social Theory (3) Hawley. Spring
- SOCI 218 Human Ecology (3) Hawley. Spring
- SOCI 289 Social and Economic Factors in Fertility (3) Namboodiri. Fall

STATISTICS

- STATS 181 Deterministic Models of Operations Research (3) Gould, Nicholson, Shachtman. Fall

ZOOLOGY

- ZOOL 108 Ecology (3) McCormick. Spring; Carl. Fall
- ZOOL 108L Ecology Laboratory (1) Spring
- ZOOL 122 Human Genetics (3) Whittinghill. Fall

DUKE UNIVERSITY

ECONOMICS

ECON 317 Seminar in Demographic Population and Resource Problems
Spengler. Spring

ECON 319 Economic Growth (3) Spengler. Spring

POLITICAL SCIENCE

POLI SCI 249 Comparative Political Analysis and Political Development
(3) Braibanti. Fall

SOCIOLOGY

SOCI 145 Urban Sociology, Myers. Spring

SOCI 243 Population Dynamics and Social Change (3) Myers. Fall

SOCI 302 Seminar on Urbanization and Migration. Myers. Spring

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LECTURE-DISCUSSION SERIES

Spring 1972

<u>Date</u>	<u>Topic</u>	<u>Discussant(s)</u>
Jan. 17	"What are the Effects of Sex-Role Training & Stereotyping on Family Planning? Are these Major Obstacles to Family Planning?"	Dr. Yvonne Brackbill Professor of Obstetrics/Gynecology & Pediatrics for Psychology Georgetown University Med. School Washington, D.C.
Jan. 24	"What are the Women's Lib View-points on Family Planning, Contraception, & Contraceptive Technology? Are these Views Heeded?"	Dr. Nancy Russo Department of Psychology Richmond College Staten Island, New York
Jan. 31	"Can We Bring Para-Professionals into Family Planning?"	Dr. Frank Moore, Director Health Manpower Development Unit, Department of Family Health & Population Dynamics School of Public Health & Tropical Medicine Tulane University New Orleans, Louisiana
Feb. 14	"What is the Meaning of Incentives?"	Dr. Vincent LoLordo U.N.C. Assistant Professor of Psychology Chapel Hill Mr. Peter Everett U.N.C. Doctoral Student Department of Psychology Chapel Hill
Feb. 21	"Are Incentives Ethical?"	Dr. Arthur Dyck Professor of Population Ethics, & Member, Center for Population Studies Harvard University Cambridge, Massachusetts

<u>Date</u>	<u>Topic</u>	<u>Discussant(s)</u>
Feb. 28	"Is Family Planning Genocidal?"	Dr. Helen Barnes Family Planning Project Maternal & Child Health Div. State Board of Health Jackson, Mississippi Dr. William H. Darity Head, Dept. of Public Health University of Massachusetts Cambridge, Massachusetts
Mar. 6	"What are the Problems & Opportunities in Commercial Marketing of Contraceptives--Bringing Contraceptives Out of the Dark?"	Mr. Edward Meldahl Program Analyst Laboratories for Population Statistics Carolina Population Center Chapel Hill Mr. Philip Harvey Director Population Services, Inc. & Pres. Population Planning Assocs., Inc. Chapel Hill North Carolina
Mar. 20	"Alternatives to Family Planning"	Student Discussion Group: Dr. Haifaa Shanawany Mr. Robert Loddengaard Mr. Robert Smythe Mr. Pete Elliott Mrs. Virginia Foxx
Mar. 27	"What are the Positive & Negative Influences of Journalistic Reporting about Population in the United States? How is Information Diffused or Blocked in the Media?"	Dr. Donald Shaw U.N.C. Associate Professor of Journalism Chapel Hill Dr. Michael Bishop U.N.C. Assistant Professor of Journalism Chapel Hill Mr. Robert Blake, Director Educational Materials Unit Carolina Population Center Chapel Hill
Apr. 3	"What are the Political & Administrative Problems Encountered in Family Planning on the National & International Level & How Can they be Countered?"	Mrs. Jeannie I. Rosoff Director Planned Parenthood/World Population Washington, D.C.

<u>Date</u>	<u>Topic</u>	<u>Discussant(s)</u>
pr. 10	"Controlling the Population of Artifacts: Depletion Quotas Versus Effluent Taxes"	Dr. Herman Daly Department of Economics Louisiana State University Baton Rouge, Louisiana
Apr. 17	"American Population Policy Making: Some Critical Insights"	Dr. Elihu Bergman Assistant Director Center for Population Statistics Harvard University Cambridge, Massachusetts
	"Population Control as a Component of an Imperialistic Foreign Policy"	Mr. Reed Reynolds Instructor Department of Anthropology Ithaca College Ithaca, New York

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STUDENT-FACULTY LECTURE-DISCUSSION SERIES

Fall 1971

7:30-9:00 p.m. each Monday at the Wesley Foundation, 214 Pittsboro Street

<u>Date</u>	<u>Topics and Speakers</u>
September 13	"RESOURCE LIMITATIONS PROSCRIBE POPULATION GROWTH" Ernest Carl, Zoology Department, UNC-CH John Florin, Geography Department, UNC-CH Dale Hoover, Economics Department, NCSU-R
September 20	"IN TERMS OF CARRYING CAPACITY, THE PLANET EARTH IS OVERPOPULATED" Georg Borgstrom, Food Science and Human Nutrition Department, Michigan State University, East Lansing Ernest Carl, Zoology Department, UNC-CH
September 27	"CAN MODELS BE USEFUL IN PLANNING COUNTRIES?" Thomas Naylor, Economics Department, Duke University H. A. Green, Economist, U.S. Census Bureau, Washington Joseph J. Spengler, Economics Department, Duke University
October 4	"ABORTION REFORM IN EASTERN EUROPE" Robert McIntyre, Economics Department doctoral student, UNC-CH
October 11	"CAN THE POPULATION PROBLEM BE SOLVED BY A REDISTRIBUTION OF PEOPLE?" Amos H. Hawley, Sociology Department, UNC-CH Joel Smith, Sociology Department, Duke University Thomas Steahr, Sociology Department and Carolina Population Center, UNC-CH
October 18	STUDENT MEETING
October 25	"RELIGIOUS TENETS CONCERNING POPULATION ARE NOT IMPORTANT: IT'S THE SOCIAL ROLE OF THE RELIGIOUS LEADER IN THE COMMUNITY" Paul Burgess, Population and Family Planning Division, University of Florida, Gainesville Saad Gadalla, American University in Cairo, Egypt Krishnan Namboodiri, Sociology Department, UNC-CH James Riddle, Minister, The Community Church, Chapel Hill Arnold Nash, Religion Department, UNC-CH

<u>Date</u>	<u>Topics and Speakers</u>
November 8	"VALUES, POLITICAL IDEOLOGIES, POPULATION: AN HISTORICAL AND PHILOSOPHICAL APPROACH" Lewis Lipsitz, Political Science Department, UNC-CH Arnold Nash, Religion Department, UNC-CH
November 15	"GIVEN \$100,000 TO SPEND ON DEVELOPMENT: WHICH COURSE OF ACTION WOULD COME FIRST, HEALTH IMPROVEMENT OR CONTRACEPTIVE DEVELOPMENT AND PROMOTION?" J. F. Hulka, Obstetrics and Gynecology Department and Maternal and Child Health Department, UNC-CH Robert Noyes, Obstetrics and Gynecology Department and Maternal and Child Health Department, UNC-CH Abdel Omran, Epidemiology Department, UNC-CH Steven Polgar, Anthropology Department, UNC-CH
November 22	"CONTRACEPTIVE DEVELOPMENT: THE ETHICS OF TESTING NEW APPROACHES" J. F. Hulka, Obstetrics and Gynecology Department and Maternal and Child Health Department, UNC-CH
November 29	"VIEWING DEMOGRAPHIC BEHAVIOR AS A LIFE CYCLE PROCESS" Charles Nam, Population Studies Program, Florida State University, Tallahassee Norton Beach, School of Education, UNC-CH Noel-David Burleson, School of Education, UNC-CH

PAST TRAINING RECORD

The overall population and family planning training program has produced 193 alumni from 1966 through May 1972. The four tables below summarize degrees awarded, major disciplines, and present country location and occupation of these alumni. Of the 193 graduates of the program, 13 are not employed in population research or service-oriented work. Fifteen have since returned to graduate school to pursue another advanced degree in population studies. Almost half of the group (74) are in less-developed countries; and 55 are in research and teaching at the university level in the U.S. or overseas.

Table 1. Degrees to population/family planning students, July 1966 to May 1972

<u>Degree</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>Total</u>
Ph.D.	-	-	-	1	7	11	1	20
Dr.P.H.	-	-	-	-	1	3	1	5
M.A.	-	-	2	4	3	10	1	20
M.S.	-	-	-	-	1	2	-	3
M.P.H.	1	6	8	8	1	1	-	25
M.S.P.H.	-	3	20	28	18	31	-	100
Non-degree students	-	-	6	4	4	5	1	20
	<u>1</u>	<u>9</u>	<u>36</u>	<u>45</u>	<u>35</u>	<u>63</u>	<u>4</u>	<u>193</u>

Table 2. Departmental majors of former population/family planning students, 1966-72

<u>Departmental Major</u>	<u>No. of Students</u>	<u>Departmental Major</u>	<u>No. of Students</u>
Anthropology	8	Maternal & Child Health	35
Biostatistics	31	Mental Health	1
Economics	1	Political Science	4
Education	6	Psychology	2
Epidemiology	9	Radio, Television	3
Genetics Curriculum	2	Sociology	16
Health Administration	49	Zoology	3
Health Education	21		
Geography	2		

Table 3. Location of 193 former population/family planning students in 1972

<u>Country</u>	<u>No. of Alumni</u>	<u>Country</u>	<u>No. of Alumni</u>
Australia (as student)	1	Morocco	1
Bolivia	1	Liberia	2
Canada	1	Malaysia	1
Chile	1	Mauritius	1
China (Taiwan)	2	Nairobi	1
Colombia	3	Pakistan	9
Dominican Republic	1	Panama	1
Germany	1	Peru	1
Ghana	2	Philippines	4
India	29	Thailand	9
Indonesia	1	Trinidad & Tobago	1
Iran	7	United Arab Republic	8
Ireland	1	United Kingdom	1
Korea	3	United States (14 still as advanced students)	97
		Vietnam	2

Table 4. Employment of 193 former population/family planning students, in 1972

<u>Type of Work</u>	<u>No. of Alumni</u>	
	<u>In United States</u>	<u>Overseas</u>
A. Population/family planning policy position at national level	15	35*
B. Population/family planning policy position at state or local levels	9	9
C. Population/family planning-related work in education institutions		
1. Research & Teaching	25	30
2. Administration	6	8
3. Below University level	-	1
Total in educational institutions	31	39
D. Family Planning clinical work	5	5
E. Work with private, population-oriented foundations and agencies		
1. Administration	10	5
2. Research	2	-
F. Enrolled in advanced population study programs	14	1
G. In non population-oriented positions	4	1
H. Whereabouts unknown or yet unemployed	7	1
TOTALS	97	96

*(Includes five U.S. government advisory staff)

CPC Training Office
June 1972

FORMER STUDENTS IN THE POPULATION PROGRAM
UNIVERSITY OF NORTH CAROLINA
Chapel Hill

1966

Roshan, Syed Mahmud, M.P.H.:
(HEED)

Provincial Family Planning, Program,
Government of Pakistan, Lahore

1967

Brown, Roy E., M.P.H.:
(EPID)

Department of Community Medicine,
School of Medicine, Mt. Sinai Hospital,
New York

El Rafie, Mervat, M.P.H.:
(MCH)

Family Planning Field Study Project,
Faculty of Medicine, Department of
Public Health, Cairo University,
Cairo, U.A.R.

Gopalan, Venkatesa, M.S.P.H.:
(HADM)

Deputy Director and Head of Social
Welfare Division, Programme Evaluation
Organization, Planning Commission,
Government of India, New Delhi

Jordan, Michael, M.S.P.H.:
(HADM)

Population Officer, USAID,
New Delhi, India

Kanwar, Kanta, M.P.H.:
(MCH)

Department of Preventive Medicine,
Family Planning Research and Training
Program, Lady Harding Medical College,
New Delhi, India

Malleck, Mohsina, M.P.H.:
(HEED)

Medical Director, Family Planning
Association of Mauritius, Port-Louis,
Mauritius

Niemann, Uta, M.P.H.:
(HEED)

Ministry of Foreign Aid and Community
Development, Bonn, West Germany

Rizk, Nagwan, K., M.S.P.H.:
(HADM)

Assistant Professor, Institute of
Preventive Medicine, Alexandria
University, Alexandria, U.A.R.

Wray, Joseph, M.P.H.:
(EPID)

Staff Member, Biomedical Sciences,
Rockefeller Foundation, and Visiting
Professor of Community Medicine, Mahidol
University, Bangkok, Thailand

FORMER STUDENTS IN THE POPULATION PROGRAM
UNIVERSITY OF NORTH CAROLINA
Chapel Hill

1968

Aboul-Fetouh, Saleh M., M.P.H.: (EPID)	Doctoral Candidate, Department of Epidemiology, School of Public Health, University of North Carolina, Chapel Hill
Bali, Prema, M.S.P.H.: (MCH)	Family Planning Unit, Department of Preventive Medicine, All India Institute of Medical Sciences, New Delhi, India
Brandon, Scott, M.S.P.H.: (HADM)	Population Officer, USAID Mission, Panama
Chowdhury, R.S., No Degree: (HEED)	Family Planning Counselor, East Pakistan Family Planning Board, Dacca
Carlson, Bruce D., M.S.P.H.: (HADM)	Population Advisor, Ford Foundation, Accra, Ghana
David, Abraham S., M.S.P.H.: (HADM)	Senior Population Economist and Director, Research Operations Project for AID NESA Bureau, Research Triangle Institute, Research Triangle Park, North Carolina
Davis, James E., M.S.P.H.: (HADM)	Program Officer (Family Planning), Near East/South Asia Bureau, USAID, Washington
Eshra, Dalal K., M.P.H.: (MCH)	Instructor in Maternity, Human Relations and Family Planning, Higher Institute of Nursing, Alexandria University, Alexandria, U.A.R.
Gibson, Patricia S., M.S.P.H.: (HADM)	Population Program Officer for Nepal, Near East/South Asia Bureau, USAID, Washington
Guimei, Maaly, M.P.H.: (MCH)	Instructor, Public Health Nursing and Maternal and Child Health, Higher Institute of Nursing, Alexandria University, Alexandria, U.A.R.
Haase, Kenneth W., M.S.P.H.: (BIOS)	Assistant Chief, Survey Methods Branch, National Center for Health Statistics, Department of Health, Education & Welfare, Rockville, Maryland
Jain, S.K., M.S.P.H.: (BIOS)	Doctoral Student in Demography, Australian National University, Turner, Canberra, Australia

Former Population Students: 1968

Kaul, S.J., M.P.H.: (MCH)	Director, Urban Family Planning Clinic, District of Godranwala, West Pakistan
King, David R., M.A.: (SOCI)	Instructor of Sociology, Department of Sociology and Anthropology, University of South Carolina, Columbia
Kohli, Krishnan, L., M.S.P.H.: (BIOS)	Doctoral Student, Population Studies Center, University of Pennsylvania, Philadelphia
Krusa, Hans E., M.S.P.H.: (HADM)	Deputy Director for Administration, Carolina Population Center, University of North Carolina, Chapel Hill
Kurz, Richard S., No Degree: (SOCI)	Instructor, Department of Sociology, St. Olaf's College, Northfield, Minnesota
Lee, Kyung-Sik, M.P.H.: (MCH)	Associate Professor in Nursing and Family Planning, Woo-Sok University, Seoul, Korea
Mathew, P.M., Certificate: (GENET)	Senior Research Officer, Department of Botany, University of Kerala, Trivandrum, India
Nelson, Steven S., M.P.H.: (HADM)	Executive Director, Planned Parenthood Association of Columbus, Ohio, Inc.
Paulson, Wayne C., M.A.: (SOCI)	Assistant Professor, Department of Sociology, Augsburg College, Minneapolis, Minnesota
*Porapan Varavej, M.P.H.: (MCH)	Member, Faculty of Public Health and Behavioral Epidemiologist for Population and Social Research Center, Mahidol University, Bangkok, Thailand
Qureshi, Bilqis, No Degree: (HEED)	Training Officer, Training and Research Institute of Family Planning, Lahore, West Pakistan
*Rampai Suksawasdi, M.S.P.H.: (BIOS)	Instructor, School of Public Health, Mahidol University, Bangkok, Thailand
Rashida Shaikh, Gul, No Degree: (HEED)	Physician, Training and Research Institute of Family Planning, Lahore, West Pakistan
*Sakornpan, Chira, M.S.P.H.: (MCH)	Head, Department of Medical Social Work, Maternal and Child Health Center, Department of Health, Bangkok, Thailand

Former Population Students: 1968

Shimoni, Kitty, M.P.H.: (MCH)	Research Associate, Health Services Research Center, University of North Carolina, Chapel Hill
Singh, Rambir, M.S.P.H.: (BIOS)	Statistician, State Family Planning Bureau, Hazratganj, Lucknow, India
Swezy, Curtis, M.S.P.H. (HADM)	Population Program Officer, USAID Mission Seoul, Korea
Tabbassum, M., No Degree: (RTVMP)	Family Planning Officer, Pakistan Department of Family Planning, Sargodha, West Pakistan
Trainer, Edward S., M.S.P.H.: (HADM)	Doctoral Student, Department of Health Administration, School of Public Health, University of North Carolina, Chapel Hill
Tamblyn, Peter B., MSPH (HADM)	Assistant Coordinator for Family Planning, Metropolitan Atlanta Council for Health, Atlanta, Georgia
Van Wie, William, M.S.P.H.: (BIOS)	Doctoral Student, Department of Health Administration, School of Public Health, University of North Carolina, Chapel Hill
VomLehn, Walter, M.S.P.H.: (HADM)	Peace Corps Physician, Dominican Republic
Yates, Sue T., M.S.P.H.: (HADM)	Family Planning Consultant, Westinghouse Learning Corporation of Bladensburg, Maryland (residing in Seattle, Washington)
*Yawarat Porapaktham, M.S.P.H. (BIOS)	Lecturer in Biostatistics, School of Public Health, and Staff Member of Population and Social Research Center, Mahidol University, Bangkok, Thailand

*In accordance with national custom, Thais are listed by first name.

FORMER STUDENTS IN THE POPULATION PROGRAM
UNIVERSITY OF NORTH CAROLINA
Chapel Hill

1969

Adams, Jacob B., M.P.H.: (MCH)	Obstetrician-Gynecologist, Grady Memorial Hospital, Atlanta, Georgia
Agrawal, R.D., M.S.P.H.: (BIOS)	Research Officer, Population Statistics, Office of the Registrar General, New Delhi, India
Allen, James E., M.S.P.H.: (HADM)	Associate Professor, Department of Health Administration, and Coordinator of Family Planning Administration Program, School of Public Health, University of North Carolina, Chapel Hill
*Banchong Suepsaman, M.P.H.: (MENH)	Lecturer in Maternal and Child Health, School of Public Health, and Staff Member, of Population and Social Research Center, Mahidol University, Bangkok, Thailand
Bashar, Khairul, M.A.: (RTVMP)	Communications Specialist, East Pakistan Family Planning Board, Dacca
Basu, Amitabha, Post Doctoral: (GENET)	Anthropological and Human Genetics Unit, Indian Statistical Institute, Calcutta, India
Bhatia, Pritam S., M.S.P.H.: (BIOS)	Research Officer, Demography and Statistics Division, Central Family Planning Institute, New Delhi, India
Boyd, Joan, M.P.H.: (MCH)	Neighborhood Youth Corps, Office of Economic Opportunity, East Palo Alto, California
Bradshaw, Lois, M.S.P.H.: (HADM)	Frederiksen Fellow Candidate (1972) for either Malaysia or the Philippines; on leave from Doctoral Program, School of Public Health, Tulane University, New Orleans, Louisiana
Brown, Donald L., M.S.P.H.: (HADM)	Deputy Director, Population Program, Office of Economic Opportunity, Washington
Burgess, Paul, M.S.P.H.: (HADM)	Director, Florida State-wide Family Planning Program, Department of Obstetrics-Gynecology, College of Medicine, University of Florida, Gainesville
Chandorkar, Kusum, M.S.P.H.: (MCH)	Senior Research Officer, Family Planning Research and Training Program, Safdarjang Hospital, New Delhi, India

Former Population Students: 1969

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David, Lessel H., M.S.P.H.: (HADM)	Director, Agricultural Institute Clinic and Rural Family Planning Center, Allahabad, India
David, Pramila, M.S.P.H.: (MCH)	Physician, Family Planning Center, Allahabad Agricultural Institute, Allahabad, India
Davis, Lee W., M.S.P.H.: (MCH)	Director, Family Planning Program, College of Medicine and Dentistry, Department of Obstetrics and Gynecology, Trenton, New Jersey
Diefenbach, Nancy, Ph.D.(pending) (now Pearce) (SOCl)	Staff Assistant, Data Access and Use Laboratory, U.S. Census Bureau, Washington
Dukuly, Memah, Certificate: (HADM)	Assistant Minister of Health & Welfare for Research and Development, Ministry of Health, Monrovia, Liberia
Early, Carolyn P., M.S.P.H.: (HEED)	Education Program, Cornell-UPCA Graduate College, Laguna, Las Banos, Philippines
Gamon, David L., M.S.P.H.: (HADM)	Counselor of Embassy, U.S. Department of State, Monrovia, Liberia
Kachirayan, M., M.S.P.H.: (BIOS)	Statistician, Institute of Rural Health and Family Planning, Gandhigram, Tamil Nadu State, India
Kanade, Vyankatesh, M.S.P.H.: (BIOS)	Statistical Officer, Bureau of Economics and Statistics, Bombay, India
Kangas, Lenni W., M.S.P.H.: (HADM)	Deputy Assistant Director for Population, USAID, New Delhi, India
Khan, Razia, M.A.: (RTVMP)	Health Education Officer, Central Evaluation Unit, Family Planning Council and Lecturer in Sociology, University of the Punjab, Lahore, West Pakistan
Landry, Amedee S., M.S.P.H.: (HADM)	Chief, Human Resources and Social Development Division, USAID, La Paz, Bolivia

Former Population Students: 1969

Layton, Robert, M.S.P.H.: (HADM)	Operations Officer, Office of Population Programs; Near East/South Asia Bureau, U.S.A.I.D., Washington
Lecomte, Jean, M.P.H.: (EPID)	Field Staff, Technical Assistance Division, Population Council, Taipei, Taiwan
MacCorquodale, Donald, M.S.P.H.: (HADM)	Population Officer, U.S.A.I.D., Manila, Philippines
Moore, Allen, Post-Doctoral (ZOO)	Assistant Professor, Department of Biology, Western Carolina University, Cullowhee, North Carolina
Morris, J. Watson, No Degree: (SOI)	Project Director, ECOS, Chapel Hill, N.C.
Mulvihill, Michael, M.S.P.H.: (EPID)	Instructor of Public Health, Hunter College; Epidemiology Staff, Department of Community Medicine, Mt. Sinai Hospital; Doctoral Student Department of Epidemiology, Columbia University, New York City
Okediji, Zacheus R., M.S.P.H.: (HEED)	Medical Care Administrator, Department of Family and Community Health, Matthew Walker Health Center, Nashville, Tennessee
Pandit, V.Y., M.S.P.H.: (BIO)	Biostatistician, Family Planning Training and Research Center, Ministry of Health and Family Planning, State of Maharashtra, Bombay, India
Patel, Vinod M., M.P.H.: (HEED)	State Health Education Officer, Family Planning Directorate of Health, Gujarat State, India
Ramarao, D., M.S.P.H.: (BIO)	Population Statistician, Rural Health Unit and Training Center, Singur, India
Richardson, Russell H., M.S.P.H.: (MCH)	Director, Governor's Special Council on Family Planning, State of Georgia, Atlanta
Roof, Wade C., M.A.: (SOI)	Assistant Professor, Department of Sociology, University of Massachusetts, Amherst
Ruoff, Edward G., M.S.P.H.: (HADM)	Associate Chief for Institutional Development, Division of Manpower and Institutional Development Office of Population, U.S.A.I.D., Washington
Russia, Kunjitham, M.S.P.H.: (MCH)	Now residing in London, England (position unknown)

Former Population Students: 1969

- Sallam, Sunny, M.P.H.:
(EPID)

Member, Faculty of Medicine, Department of Public Health, Alexandria University, Alexandria, U.A.R.
- Sampoornam, N., M.S.P.H.:
(MCH)

Principal, Regional Family Planning Training Centre, Egmore, Madras State, India
- Sastry, K.R., M.S.P.H.:
(MCH)

Doctoral Student, Department of Sociology, University of North Carolina, Chapel Hill
- Selvaraj, M.K., M.P.H.:
(HEED)

Health and Family Planning Educator, Gandhigram Institute of Rural Health and Family Planning, Tamil Nadu State, India
- Shuttleworth, Clara, M.P.H.:
(MCH)

Nursing Supervisor, Medical Services, Prairie Region, Department of National Health and Welfare, Edmonton, Alberta, Canada
- *Suphot Chasiri, M.S.P.H.:
(MCH)

Chief of In-service Training Division, Maternal and Child Health Centre, Khonkaen, Thailand
- Vascones, Jorge, M.A.:
(SOCl)

Assistant for Social Research, Center of Social Research, Catholic University, Lima, Peru

*In accordance with Thai custom, Thais are listed by first name.

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FORMER STUDENTS IN THE POPULATION PROGRAM
UNIVERSITY OF NORTH CAROLINA
Chapel Hill

1970

Abruquah, Samuel K., Certificate: (MCH)	Lecturer, School of Social Work, University of Ghana, Accra
Altman, Diana L., M.S.P.H.: (HADM)	Family Planning Administrator, Population Services, Inc., Chapel Hill, North Carolina
Andrews, Norma G., M.S.P.H.: (MCH)	Medical Officer, Maternal and Child Health Program, Government of Trinidad and Tobago
Berry, Sandra L., M.S.P.H.: (MCH)	Assistant Professor, School of Nursing, University of North Carolina, Chapel Hill
Black, Timothy, M.S.P.H.: (MCH)	Associate Director, Population Services, Inc. Offices, Nairobi
Blumenstock, Edward, M.S.P.H.: (EPID)	Medical Student, University of California School of Medicine, San Francisco
*Boongium Tragoolvongse, M.S.P.H.: (HEED)	Instructor, School of Public Health and Staff Member of Population and Social Research Center, Mahidol University, Bangkok, Thailand
deVoursney, Mair, Ph.D. candidate (nee Jones) (POLI SCI)	Continuing doctoral study on population policy development
Farag, Zaher, Ph.D.: (EDUC)	Public Health Advisor, Comprehensive Health Planning, Office of Regional Director (Region 3), Department of Health, Education & Welfare, Philadelphia, Penna.
Feliciano, Aurora, M.S.P.H.: (MCH)	Faculty Member of Institute for Study of Human Reproduction and Department of Pediatrics and Preventive Medicine, School of Medicine, University of St. Tomas, Philippines
Fergany, Nader A., Ph.D.: (BIOS)	Population Statistician, Institute of Statistics, Cairo University, Cairo, U.A.R.
Gaud, William S., Ph.D.: (ZOO)	Assistant Professor of Biology, Department of Biological Sciences, Northern Arizona University, Flagstaff, Arizona

Former Population Students: 1970

Gunasekaran, Subbian, M.S.P.H.:
(BIOS) Statistical Analyst, Gandhigram Institute
of Rural Health and Family Planning,
Tamil Nadu State, India

Harvey, Philip D., M.S.P.H.:
(HADM) Director, Population Services, Inc. and
Population Planning Associates, Inc.,
Chapel Hill, North Carolina

Hern, Warren M., M.P.H.:
(EPID) Chief, Demonstration Projects Branch,
Family Planning Program, Office of Economic
Opportunity, Washington, D.C.

Kanaka-Devi, M., M.S.P.H.:
(HEED) Health Educator, Training Division, Gandhigram
Institute of Rural Health and Family Planning,
Tamil Nadu State, India

Knauff, Lynn K., M.S.P.H.:
(MCH) Director, N.C. Family Planning Program,
Carolina Population Center, University of
North Carolina, Chapel Hill

Lee, Che-Fu, Ph.D.:
(SOGI) Instructor, Department of Sociology, Catholic
University of America, Washington, D.C.

Macey, Anne M., M.S.P.H.:
(HADM) Training Officer, Florida State-wide Family
Planning Program, Department of Obstetrics
and Gynecology, College of Medicine, University
of Florida, Gainesville

Mcasham, Anthony R., Dr.P.H.:
(HADM) Population Council Advisor, Colombia Assn. of
Medical Schools and National School of Public
Health, Bogota, Colombia

Montague, Joel, M.S.P.H.:
(HADM) Regional Director (Pakistan), Population
Council, New York City

Mooney, Peter J., Ph.D.:
Department of Finance, Dublin, Ireland

Mills, Karen, M.A.:
(nec Massengill) (SOGI) Demographic Statistician, Population Division,
U.S. Census Bureau, Suitland, Maryland

Nu, Liet Vo, Certificate:
(BIOS) Maternal and Child Health Planning Services,
Ministry of Health, Saigon, Vietnam

Pani, V. Kothanda, Ph.D.:
(PSYCH) Assistant Professor of Psychology, Franklin
College, Franklin, Indiana

Park, Dai Kyoan, Certificate:
(BIOS) Supervisor and Research Member, National
Family Planning Evaluation Team, Ministry of
Health, Seoul, Korea

Russell, Jerry, M. S.P.H.
(HADM) Administrative Director, International Postpartum
Program Population Council, New York, New York

Former Population Students: 1970

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Schonfeld, Warren, M.S.: (BIOS)	Biostatistician, Office of Program Analysis, Health Services and Mental Health Administration, Public Health Service, Rockville, Maryland
Singerman, Leonard J., M.S.P.H.: (HADM)	Associate Professor of Pediatrics, Division of Family Medicine, University of Miami School of Medicine, Miami, Florida
Spangler, Carol, M.S.P.H.: (nee Kozlowski) (HEED)	Teacher of Family Life and Human Development, Oxen Hill Junior High School, Oxen Hill, Md.
Talwar, Prem P., Ph.D.: (BIOS)	Family Planning Program Associate, Ford Foundation, New Delhi, India
Upton, Donna, M.S.P.H.: (HEED)	Program Planner, North Carolina Heart Association, Chapel Hill, North Carolina
White, Billy G., M.S.P.H.: (BIOS)	Biostatistician, Office of Program Analysis, Health Services and Mental Health Administration, U.S. Public Health Service, Rockville, Maryland
Brooks, Jane T., M.A.: (ANTH)	Doctoral Student, Department of Anthropology, University of North Carolina, Chapel Hill
Lowenbach, Trude, M.A.: (ANTH)	Doctoral Student, Department of Anthropology, University of North Carolina, Chapel Hill

*In accordance with national custom, Thais are listed by first name.

FORMER STUDENTS IN THE POPULATION PROGRAM
UNIVERSITY OF NORTH CAROLINA
Chapel Hill

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1971

Asayesh, Kahil, M.S.P.H. (HADM)	Post-master research, University of North Carolina, Chapel Hill, N.C. On leave from position as Deputy Director General, Health Corps, Ministry of Health, Iran
Azordegan, Firooz, M.S.P.H.: (BIOS)	Assistant Professor of Biostatistics, School of Public Health, Tehran University Tehran, Iran
Benz, Charity (No degree): (GEOG)	Social Science Analyst, Data Access and Use Laboratory, U.S. Bureau of the Census, U.S. Department of Commerce, Suitland, Md.
Bergman, Elihu, Ph.D.: (POLI SCI)	Assistant Director, Center for Population Studies, Harvard University, Cambridge, Mass.
Bhatnagar, K.M., M.A.: (EDUC)	Frederiksen Fellow, School of Social Work, Tehran University, Tehran, Iran
Biggar, Jeanne, Ph.D.: (SOCI)	Assistant Professor, Department of Sociology University of Virginia, Charlottesville
Bond, James T. (No Degree): (ANTHRO)	Research Associate, High Scope Educational Research Foundation, Ypsilanti, Michigan
Chaichana Suvanavejh, M.S.P.H.: (MCH)	Medical Officer and Chief of Family Planning Section, Maternal and Child Health Center, Region 4, Khon-Kaen Province, Thailand
Chang, Kung-Kong, Dr. P.H.: (HADM)	Specialist, Rural Health Division, Joint Commission on Rural Reconstruction, Taipei, Taiwan
Clinton, Richard, Ph.D.: (POLI SCI)	Assistant Professor, Department of Political Science, and Research Associate, Carolina Population Center, University of North Carolina, Chapel Hill
Davis, Dona, M.A.: (ANTHRO)	undecided
Davis, Dorothy, M.A.: (ANTHRO)	undecided
Djamhoer, M., M.S.P.H.: (MCH)	Faculty Member, Department of Obstetrics and Gynecology, School of Medicine, University of Padjadjaran, Bandung, Indonesia

Former Population Students: 1971

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Fassai-Nezhad, Oranus, M.S.P.H.: (HEED)	Director, Division of Social Work and Publications, Family Planning Unit, Ministry of Health, Tehran, Iran.
Gibson, Betty, M.S.P.H.: (HADM)	Director, Children's and Family Planning Services, Welfare Dept., Montgomery Co., Md
Gil, Angelina, M.S.: (BIOS)	Professor of Biostatistics, School of Public Health, University of Antioquia, Medellin, Colombia
Gnecco, Gilda, M.S.P.H.: (MCH)	Professor of Social Hygiene and Preventive Medicine, University of Santiago, and Director of Ismael Valdes Clinic, Santiago
Greene, Brian, M.S.P.H.: (BIOS)	Assistant Director, Guilford County Family Planning Center, Greensboro, N.C.
Gupta, Ram K., M.S.P.H.: (BIOS)	Research Officer, Office of the Registrar General, Government of India, New Delhi
Hashim, Mohammed, M.A. : (HEED)	Head Information Division Family Planning Board, Kuala Lumpur, Malaysia
Herbert, Mayling, M.A.: (ANTH)	On leave from doctoral program, Dept. of Anthro., Univ. of N. Carolina, Chapel Hill
Hibbard, H. David, M.S.P.H.: (MCH)	Resident in Pediatrics, Cleveland Metropolitan General Hospital, Cleveland, Ohio
Hibbard, Kathie, M.S.P.H.: (HEED)	Family Planning Coordinator, Maternal and Infant Care Project, Cleveland, Ohio
Holme, Paul, M.A.: (EDUC)	Frederiksen Fellow, Philippines
House, Dennis E. (no degree) (BIOS)	Statistician, Environmental Protection Agency, Research Triangle Park, N. Carolina
Jacobs, Judith, M.S.P.H.: (HEED)	Doctoral student, Dept. of Mental Health, School of Public Health, Univ. of North Carolina, Chapel Hill
Jain, Pawan, K., M.S.P.H.: (BIOS)	Statistician, National Family Planning Institute, New Delhi, India
Jalali, G.H., M.S.P.H.: (HADM)	Professor and Director of Family Planning Education and Research, School of Public Health, Tehran University, Tehran, Iran
Johnson, Bradford, M.S.P.H.: (BIOS)	Statistician, National Center for Health Statistics, Dept. of Health, Education & Welfare, Research Triangle Park, N.C.
Kasarda, John D., Ph.D.: (SOCI)	Assistant Professor of Sociology, University of Chicago, Chicago, Illinois
Kay, Lynn, M.A.: (ANTHRO)	Undecided

Former Population Students : 1971

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Kelly, Robert, Ph.D.: (ZOOLOGY)	Visiting Scholar, Resources for the Future, Inc., Washington, D.C.
Khalifa, Atef M., Ph.D: (SOCIOLOGY)	Assistant Professor of Sociology, Institute of Statistics, Cairo University, Cairo, UAR
Khattab, Moushira, M.A.: (POLITICAL SCIENCE)	Third Secretary, Ministry of Foreign Affairs, Cairo, U.A.R.
Konanc, Judith, Ph.D.: (PSYCHOLOGY)	Assistant Professor of Psychology, Dept. of Psychiatry, School of Medicine, Univ. of North Carolina, Chapel Hill
Land, Sandra H., M.S.P.H.: (MCH)	Population Program Specialist, Charleston County Health Dept., Charleston, S.C.
Lasprilla, Enrique, M.S.P.H.: (BIOSCIENCE)	Demographer, Dept. of Administrative Nacional de Estadistica, Bogota, Colombia
Loddengaard, Robert, M.S.P.H. (HADM)	Evaluation Specialist, U.S. Programs Office, Carolina Population Center, University of North Carolina, Chapel Hill
Long, John F., M.A.: (SOCIOLOGY)	Instructor, Dept. of Sociology, University of California, Riverside
McNellis, Donald, M.S.P.H: (MCH)	Assistant Professor, Dept. of Obstetrics & Gynecology, Bowman-Gray School of Medicine, Wake Forest University, Winston-Salem, N.C.
Martin, Jean F., M.S.P.H.: (HADM)	Consultant, Africa Study Group and W.H.O. Carolina Population Center and W.H.O.
Merrill, Henry D., M.S.P.H.: (HADM)	Director of Evaluation and Development, Planned Parenthood Association of Columbus, Ohio, Inc., Columbus, Ohio
My, Vu Thi, M.S.P.H: (BIOSCIENCE)	Chief, Bureau of Statistics, Ministry of Health, Saigon, South Vietnam
Nadim, Abolhassan, Dr. PH: (EPIDEMIOLOGY)	Associate Professor, Dept. of Epidemiology, School of Public Health, Tehran University Tehran, Iran
Nelson, Theodore C., M.S.P.H (HADM)	U.N. Fund for Population Activities, Senior Advisor, Tehran, Iran
Packtor, Daniel, (no degree): (SOCIOLOGY)	Administrator, Office of Criminal Justice, Plans & Analysis Division Government of the District of Columbia, Washington, D.C.

Former Population Students: 1971

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Pisharoti, K.A., Dr. P.H.: (HADM)	Co-Director, Institute of Rural Health & Family Planning, Gandhigram, India
Rengert, George, Ph.D.: (GEOG)	Assistant Professor, Department of Geography Temple University, Philadelphia, Penn.
Russell, Jerry M. (No Degree): (HADM)	Administrative Director, International Postpartum Program, Population Council, New York, New York
Saltonstall, Caroline, M.A.: (EDUC)	Doctoral student, School of Education University of North Carolina, Chapel Hill
Sarkar, Khuku, M.S.P.H.: (HADM)	Research Assistant, International Fertility Research Project, Carolina Population Center Chapel Hill
Sarma, R.S.S., Ph.D.: (BIOS)	Statistician, Rural Health Research Project, Ludhiana, India and Faculty Associate, Department of International Health, Johns Hopkins University, Baltimore, Maryland
Sehgal, Jag M., Ph.D.: (BIOS)	Statistician, Gandhigram Institute of Rural Health and Family Planning, India
Shah, Ketki B., M.P.H.: (HEED)	undecided
Sheikh, Maqbool, M.S.P.H.: (MCH)	Social Worker, Hampton Health Department, Hampton, Virginia
Stillman, Jeanne, M.S.P.H.: (HADM)	Research Associate, African Projects, Carolina Population Center, & Instructor Department of Health Administration, Univ. of North Carolina, Chapel Hill
Sudersanam, Vijay, M.S.P.H.: (HEED)	undecided
Thangadorai, M., M.S.P.H.: (HEED)	Health Education Instructor, Gandhigram Institute of Rural Health and Family Planning, Tamil Nadu State, India
Tompkins, Forrest G., M.S.P.H.: (MCH)	Chief of Professional Services, Dewitt Army Hospital, Fort Belvoir, Virginia
Williams, Sara, M.S.: (EDUC)	Not yet employed
Van Valey, Thomas, Ph.D.: (SOCl)	Assistant Professor, Department of Sociology, Colorado State University, Fort Collins
Yarnell, Peter, M.S.P.H.: (HADM)	Chief, Community Services Branch, Emergency Health Manpower Program, Health Service & Mental Health Administration, U.S. Public Health Services, Rockville, Maryland
Ziai, Lotfollah, M.S.P.H.: (HADM)	Director General, State Health Department, Mazandaran, Iran

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CAROLINA POPULATION CENTER
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CHAPEL HILL, NORTH CAROLINA 27514

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SHORT-TERM TRAINEES AND VISITORS
Carolina Population Center

July 1, 1971 - June 30, 1972

July 1971

- Dr. Jorge Villareal, Chief
Population Division, Pan-American Foundation of Associations of
Medical Schools, Bogota, Colombia
- Mr. Satish Chandra, Education Officer
Family Planning Association of India, New Delhi, India
- Dr. Walter Rodrigues
Executive Secretary of the Sociedade Civil Bam Estar Familiar No
Brasil (Bemfam), Brazil
- Mr. Tashome Demeke, Professor
Family Medicine, Gondar Public Health College, Gondar Ethiopia
- Mr. Richard Moore, Overseas Population Intern
Center for Population Planning University of Michigan,
Ann Arbor, Michigan
- Dr. Everett S. Lee, Professor
Sociology Department, University of Georgia, Athens, Georgia

August 1971

- Father Arthur McCormack
Pontifical Commission Justice & Peace, Vatican City, Rome, Italy
- Mr. Brian McCall, Chief
Education & Information Unit, Action for Development Food and
Agricultural, Organization, United Nations, Rome, Italy
- Mr. Krishna Bhatnagar, Frederiksen Intern in Iran
Graduate of Population Education, University of North Carolina,
Chapel Hill, North Carolina
- Dr. Amit K. Bhattacharyya, Frederiksen Intern in Iran
Graduate Student in Sociology, Brown University, Providence,
Rhode Island
- Mr. Glenwood P. Roane
Regional Population Officer, African Bureau USAID, Accra, Ghana
- Mr. Ain Kivimae
Assistant Regional Population Officer, African Bureau, USAID,
Accra, Ghana
- Dr. Umaru Shehu
Director, Institute of Health and Professor/Head, Department of
Community Health, Amadr Bellow University, Zaria, Nigeria
- Dr. Khosrow Farhang
Director, Planning Department, Family Planning Division, Ministry
of Health, Tehran, Iran
- Dr. Neyssan Bamdad, Head/Department of Social Science, Family Planning
Division, Ministry of Health, Tehran, Iran
- Mr. Robert Pogson, Deputy Director
Center for Population of Economic Development, University of
Michigan, Ann Arbor, Michigan
- Mrs. H. Bookye-Yiadom
Community Development Officer, Department of Social Welfare &
Community Development, Ghana
- Mrs. Helen Kitcher
Assistant Welfare Officer, Department of Social Welfare &
Community Development, Ghana
- Mr. James Ampah Kowfie
Research Writer/Editor, National Family Planning Programme, Ghana
- Mr. Martin Tay, Director
Information & Education Division, National Family Planning Programme,
Ghana
- Mr. Kwame Asuming
Department of Record & Report Management, Danfa Rural Health &
Family Planning, Ghana

VISITORS (Continued)

Mr. Reuben Etsri Nyatepe-Coo, Visual Aids Officer
National Audio-Visual Centre, Public Relations Secretariat, Ghana

September 1971

Mr. Bung Suk Kim
Population Education Officer, National Family Planning Center
Seoul, Korea

Mr. Thavatchai Voraponsathorn, Instructor
Public Health Administration, School of Public Health,
Mahidol University, Bangkok, Thailand

Dr. Ronald W. O'Connor
President, Management Services for Health, Inc.
Cambridge, Massachusetts

Mr. Osman Ahmed, Economist (Prospective employee)
Warrent Regional Planning Corporation, Manson, North Carolina

Dr. George Borgstrom
Professor of Food Science & Economic Geography,
Michigan State University, Lansing, Michigan

Dr. Oscar Harkavy, Officer in Charge, Office of Population
International Division, The Ford Foundation, New York, New York

Mr. Robert Wickham, Program Officer, Office of Population
International Division, The Ford Foundation, New York, New York

Mr. Rafael Salas, Director
United Nations Fund for Population Activities, U.N. Development
Programme, New York, New York

Mr. John Keppel, Chief, Area Operations
United Nations Fund for Population Activities, U.N. Development
Programme, New York, New York

Dr. H. A. Green, Economist
U.S. Bureau of the Census and International Demographic Statistics
Center, Washington, D. C.

Dr. Aaron Segal, Editor
African Report Magazine, New York

October 1971

Dr. Jose Donayre
Operations Officer for Latin America, U.N. Fund for Population
Activities, New York, New York

Mr. Davidson Gwatkin, Population Officer
The Ford Foundation, Lagos, Nigeria

Mrs. Ruth Fitzmaurice, Deputy Director,
Population Officer, Near East & South Asia Division, Agency for
International Development, Washington, D.C.

VISITORS (Continued)

October 1971

- Miss Penelope Farley, Program Analyst
Evaluation Division, Technical Assistance Bureau, Agency for
International Development, Washington, D.C.
- Dr. Alvaro Garcia-Pena
Director of International Programs, Population Reference
Bureau, Inc., Washington, D.C.
- Dr. Donald F. Heisel
Staff Associate for Migration, The Population Council, New York
- Miss Edna Poyner
American Home Economics Association, Washington, D.C.
- Dr. Marjory Wybourn
American Home Economics Association, Washington, D.C.
- Mr. Paul Burgess, Director
Florida Statewide Family Planning Program, Department of Ob/Gyn,
College of Medicine, University of Florida, Gainesville, Florida
- Mr. John Wells, Executive Director
Family Planning Coordination Council, Chicago, Illinois
- Mrs. Peggy Barrentine, Coordinator
Manpower Training & Education, Family Planning Coordination Council,
Chicago, Illinois
- Miss Roxanne Bloomfield, Associate Coordinator,
Manpower Training & Education, Family Planning Coordination Council,
Chicago, Illinois
- Mr. Edward Rizzo, Associate Chief
International Development, Manpower & International Development
Division, Office of Population, Technical Assistance Bureau, USAID,
Washington, D.C.
- Mrs. Pangori Gadavani
AID Mission/Bangkok, Bangkok, Thailand
- Mrs. Yoh Ok Lee
Educational Materials Specialist, Family Planning International
Assistance, New York, New York

November 1971

- Dr. A. Ronaghi
Department of Community Medicine, Pahlavi University, Shiraz, Iran
- Mr. William Flexner
Population Officer, USAID/Nicaragua, American Embassy, Managua, Nicaragua

November 1971

- Mrs. Nadene Stockard, Program Development Officer,
Multi-Regional Branch, Office of International Training
Agency for International Development, Washington, D.C.
- Dr. Federico Moncloa, Director General
Center for Studies of Population and Development, Lima, Peru
- Dr. Ricardo Subiria, Associate
Center for Studies of Population and Development, Lima, Peru
- Mrs. Gloria Nichtawitz, Associate
Center for Studies of Population and Development, Lima, Peru
- Mrs. Teresa Stiglich, Associate
Center for Studies of Population and Development, Lima, Peru
- Mr. Robert Fischelis, Fellowship Officer
Rockefeller Foundation, New York, New York
- Mr. John Gregg, Director
Program Planning & Control, Family Health, Inc., New Orleans, Louisiana
- Dr. R. T. Ravenholt, Director
Office of Population, US/AID, Washington, D.C.
- Dr. Willard Boynton, Deputy Director
Office of Population, US/AID, Washington, D.C.
- Dr. Jagan Nath Kaul, Development Officer
University Grants Commission of India, New Delhi, India
- Dr. Charles B. Nam
Professor of Sociology, Florida State University, Tallahassee, Florida
- Miss Norma Crichton, Public Relations Officer
National Family Planning Board, Kingston, Jamaica
- Miss Hyacinth Stewart, Clinic Officer
National Family Planning Board, Kingston, Jamaica

December 1971

- Mr. Peter Rouselle
Management Services for Health, Cambridge, Massachusetts
- Mrs. Nirmala Murthy
Management Services for Health, Cambridge, Massachusetts
- Mr. J. B. Mathema
Family Planning Association, Nepal

VISITORS (Continued)

6

January 1972

- Dr. Louis Verhoestraete, Dean
School of Public Health
The American University of Beirut
Beirut, Lebanon
- Mr. William S. Reed, Administrative Officer
Division of Administration
The Ford Foundation
320 East 43rd Street
New York, New York
- Dr. Yvonne Brackbill, Professor
Obstetrics and Gynecology and Pediatrics for Psychology
Georgetown University School of Medicine
Washington, D. C.
- Dr. Nancy Russo, Assistant Professor
Department of Psychology
Richmond College
Staten Island, New York
- Mr. Winfield Best, Consultant
Businessmen's Educational Fund
New York, New York
- Dr. Alfred K. Neumann, Chief
International Health Program
University of California School of Public Health
Los Angeles, California
- Dr. Frank Moore, Director
Health Manpower Development Unit
Dept. of Family Planning and Population Dynamics
Tulane University
New Orleans, Louisiana

February 1972

- Mr. Winfield Best, Consultant
Businessmen's Educational Fund
New York, New York
- Dr. Arthur J. Dyke
Mary B. Saltonstall Professor of Population Ethics,
Member Center for Population Studies, and
Member Faculty of Divinity
Harvard University
Cambridge, Massachusetts
- Miss Eugenia Gale
Fellowship Secretary
The Population Council
New York, New York

VISITORS (Continued)

7

Dr. Helen Barnes, Assistant Professor
Department of Obstetrics/Gynecology
Division of Family Planning
University Medical Center
Jackson, Mississippi

Dr. William A. Darity, Head
Department of Public Health
University of Massachusetts
Amherst, Massachusetts

March 1972

Dr. Nafis Sadik, Coordinator
Programming Division
United Nations Development Program
United Nations Fund for Population Activities
New York, New York

Mr. Theodore C. Nelson
United Nations Fund for Population Activities
Senior Advisor
Teheran, Iran

April 1972

Dr. A. Ronaghy, Chairman
Department of Community Medicine
Paklauri University
Shiraz, Iran

Dr. Jeannie I. Rosoff, Director
Planned Parenthood-World Population
Washington, D. C.

Dr. Herman E. Daly
Associate Professor of Economics
Louisiana State University
Baton Rouge, Louisiana

Dr. Luis Galick
Medical Advisor
Family Welfare Association
Guatemala

Mr. George Baldwin, Deputy Director
Population Projects Department
International Bank for Reconstruction and Development (The World Bank)
Washington, D. C.

Dr. M. M. Abdel-Kader, Chairman
Department of Biochemistry
Cairo University

VISITORS (Continued)

8

May 1972

Ford Foundation Group

Oscar Harkavy, Ozzil Simmons, Robert Wickham, Trudy Suala

Dr. Abebe Engdasaw

MPH Candidate
Department of Health Education
School of Public Health
University of Michigan
Ann Arbor, Michigan

Dr. T. R. Tewari

New Delhi, India — (past Director of National Institute of Health
Administration and Education in India)

Dr. Bernard Berelson, Director

Population Council
New York, New York

Mr. Ibrahim Mohammed El Azab

Mr. Hinley Siam

Mr. Shawky Mina

Mrs. Cynthia Royer

Mr. Abail Ghani Mohmond

Mr. Nasshey Oravey

United Arab Republic and West Indies, Statisticians visiting U. S.

Dr. Trivitya Temahivong

Graduate Student
Department of Maternal and Child Health
University of Michigan
Ann Arbor, Michigan

Dr. Grujca Zargovic, Director

Institute of Hygiene and Social Medicine
Medical Faculty
Sarajivo, Yugoslavia

Mrs. Helen Ping Ching Koo

Dr. P.H. Candidate
Population Planning
University of Michigan
Ann Arbor, Michigan

June 1972

Professor K. E. de Graft Johnson

Head, Department of Sociology
University of Ghana at Legon

Dr. Swasdi Skulthai

Deputy Rector, Mahidol University
Bangkok, Thailand

VISITORS (Continued)

9

- Mr. Howard Keller, Population Officer
USAID
Tunis, Tunisia
- Dr. Gholam-Reza Pezeshkiam
Assistant Professor
Public Health Administration
School of Public Health
Teheran, Iran
- Dr. Kemal Ustay
Associate Professor, Department of Obstetrics and Gynecology
Hacettepe University
Ankara, Turkey
- Dr. Mahmoud Mahloudji
Professor of Medicine
Medical School
Pahlavi University
Shiraz, Iran
- Dr. Shanta Rao, Director
Institute for Research in Reproduction (Indian Council of Medical Research)
and Secretary of the Indian Society for the Study of Reproduction
and Endocrinology
New Delhi, India
- Mr. Lenni W. Kangas
Deputy Assistant Director for Population Affairs
American Embassy
New Delhi, India
- Mr. John P. James, Chief
Responsible Parenthood and Demography Branch
USAID Mission to Ecuador
Quito, Ecuador
- Dr. J. Corbett McDonald, Chairman
Department of Epidemiology and Health, and
Director, Center for Health Care Research
McGill University
Montreal, Canada
- Dr. Allan G. Rosenfield
The Population Council
Bangkok, Thailand
- Dr. Britain J. Williams, Associate Director
Computer Center
University of Georgia
Athens, Georgia

VISITORS (Continued)

10

Dr. Glenn Ware, Statistician
Computer Center
University of Georgia
Athens, Georgia

Ms. Chris Leathers
Publications Specialist, Computer Center
University of Georgia
Athens, Georgia

CAROLINA POPULATION CENTER

Foreign Travel -- Fiscal Year
[no 211(d) funds used]

<u>NAME</u>	<u>DATES</u>	<u>PLACE</u>	<u>REASON FOR TRAVEL</u>
Abernathy, James R.	Nov-Dec	Philippines	Assignment to Xavier University in connection with Field Work phase of data collection at Mindanao Center for Pop. Studies.
Ahmed, Osman	May-June	Ghana, Tunisia	In Ghana to discuss administrative organization of proposed University Population program; in Tunisia to discuss the University as potential site for population project.
Allen, James E.	Apr-May	Venezuela, Colombia	Exploration for development of projects under University Services Agreement.
Anderson, Richmond K.	Oct Dec	India Tanzania, Uganda	World Bank nutrition consultant; To discuss ongoing USA project in Tanzania and to attend AMSA confer. in Uganda.
	Jan	India	Second visit as World Bank Mission nutrition consultant
	Feb	Haiti	consultant on program to implement f.p. services into ongoing nutrition program of Haitian government
	Apr	Camerouns	attend AMSA Conference and serve as consultant from AAMC to this conf.
	Oct	Japan and return to Yugoslavia	Attend 2nd Contributors Conference to IFRP.
Appelbaum, Mark I.	June	Paris, France	attend UNESCO conference
Baker, Raymond H.	Nov-Dec	Colombia	consultation with Colombian POPLAB
Beach, Norton L.	July-Aug	Japan, Philippines, Thailand, India, Iran	consultation for CPC on population education
Bernard, Roger P.	Oct-Nov	Japan, Korea, Taiwan, Hong Kong, Philippines, Singapore, Malaysia, Thai- land, Nepal, Paki- stan, Switzerland	To attend the 2nd Contrib. Conf. to IFRP and visits with collaborators.

Blake, Robert R.	Oct-Dec	England, France, Iran, Malaysia	Site visits as member of World Bank team
	Mar	Philippines	Consultant of World Bank on educational programs in Philippines.
Brenner, William E.	May	Singapore	Provide clinical training at collaborating IFRP center.
Buckner, Bates	May-June	England, France	To visit various population organizations such as IPPF, OECD, etc. to discuss cooperative arrangements for int'l. conference and library project.
	Oct-Nov	Accra, Ghana	consultation on TIS programs
Burnight, Robert G.	Aug	Thailand	To take up assignment as CPC resident representative to Faculty of Public Health, Mahidol University, Bangkok.
Cannon, Jaye	Apr-May	Venezuela, Colombia	Exploring development of University Services Agreement projects.
Cassel, John	Aug	Yugoslavia	Consultation with potential collaborators for IFRP'
Chanlett, Eliska	Nov-Dec	Colombia	Consultation with Colombian POPLAB
Clinton, Richard L.	July-Aug	Mexico	Consultation on potential members for IPPC
	Oct	Puerto Rico	To confer with colleagues on Puerto Rican research segment of IPPC
	June	France	To attend UNESCO conference
	June-July	Mexico, El Salvador, Costa Rico	Consultation with potential members for IPPC
Cogswell, Betty E.	Nov-Dec	Italy, Yugoslavia	Meetings with FAO for pop. program in East Africa; mtg. on cross-nat'l. research studies in Yugoslavia.
	Apr-May	Russia, Iran	In Russia to deliver paper at SVC population conference in Moscow; in Iran to explore potential projects with universities in Iran

David, Pramila	Oct	Japan from India	To attend the 2nd Contributors Conf. to IFRP
Dolan, Margaret M.	Jan-Feb	Thailand	Consultant to Mahidol University
Edmands, Betty E.	Dec	Switzerland	Attend the Study Group on Educational Training for Family Planning and Health Services
	Apr-May	Iran, Turkey,) Ghana, Nigeria)	Visit prospective participating countries for Workshop in Training in Population for Nursing Educators in Developing Countries (workshop to be held in Chapel Hill in Sept.)
	June	Haiti, Panama,) Colombia)	
Freymann, Moye W.	Sept	Austria, Switzer- land	In Austria and Switzerland to participate in preparation of UN paper for Advisory Council on Application of Science and Technology to Development
Fulk, Worth W.	Nov-Dec	Colombia	Confer with Colombian POPLAB representatives.
Gadalla, Saad	Nov-Dec	Egypt	Consult with American University in Cairo on population research.
Garland, Steven	June-Sept	Puerto Rico	Participation in Puerto Rican research segment of IPPC
Graham, John B.	Aug	England	Investigation for University Pop. Program Development project matters regarding population problems.
Hall, Thomas L.	June-July	Switzerland, Philippines, Costa Rica	Survey of family planning man- power and training needs.
Hulka, Barbara	Oct-Nov	Singapore, Indonesia, Japan, India, Thailand, Egypt	Consultation with various collabora- tors/population experts on programs of IFRP and attendance at 2nd Contrib. Conf. in Tokyo.
Hulka, Jaroslav F.	Oct-Nov.	Japan	Attending the 2nd Contributors Conf. to IFRP.

Jain, Sagar C.	Apr-May	India, Thailand, Indonesia, Philippines	Negotiating Ford contracts with various agencies in countries visited.
Jenk, Jorgen	Sept-Oct	Sweden, Denmark	Participation in Population Education Workshops
Johnson, Trois	July-Sept	Thailand	Consultant to Mahidol University
Kaluzny, Arnold D.	May-June	Thailand, Pakistan	To develop potential research projects for the University Services Agreement
Kessel, Elton	Sept-Dec	England, Iran, India, Indonesia, Hong Kong, Japan, Taiwan, Philippines, Singapore, Thailand, Uganda	In Japan to attend the 2nd Contributors Conference of IFRP; Other countries--to consult with present and potential collaborators of IFRP program.
	Jan	England, Switzerland, Denmark, Sweden, Norway	Conferring with various head of European population agencies on program development of IFRP.
Krotki, Karol	Dec	Morocco to Ghana	Participate in and present paper at African Regional Population Conf.
	Apr	Morocco to Chapel Hill to Canada	attend Moroccan POPLAB Conference and to chair session on Moroccan demography at PAA meeting in Montreal.
Lachenbruch, Anthony	Nov-Dec	Ghana	Consultation with University of Ghana faculty and attend portion of Afr. Regional Population Conference
Lean, T. H.	Oct	Indonesia, Japan, to Singapore	Attend 2nd Contributors' Conf. to IFRP.
Levine, William H.	Oct-Nov.	Ghana, Senegal	In Ghana to assist with program development at the university; in Senegal to consult with Univ. officials.
	Dec	Ghana	Attend African Regional Population Conference and meet with University of Ghana officials.
Linder, Forrest T.	Sept-Oct	Philippines	Consultation with Philippine POPLAB
	June-July	Switzerland	
Lingner, Joan P.	May-July	Philippines	Assignment to Xavier University in connection with data analysis of data collected by Mindanao Center

Losee, Garrie J.	Apr-May	Colombia to Chapel Hill	Participation in Colombian POPLAB Conference
Lynton, Rolf	July-Aug	Italy, Lebanon, Turkey, Iran, India, Thai- land, Philippines	Development of initial contacts with institutions in the various countries to determine interest in carrying out objectives of the University Population Program funded under the University Services Agree- ment.
McLaughlin, Curtis P.	July-Aug	Korea	AID consultant to Seoul University for program development.
Mitra, M.	Oct	India to Japan	Attend 7th World Congress on Fert. and Sterility and 2nd Contrib. Conf. of IFRP.
Myers, Robert	Feb-Mar	France, Morocco	To discuss Moroccan POPLAB with resident advisor and AID officials; in France to consult French demo- graphers regarding POPLAB program.
Nash, Arnold N.	July-Aug	England	Investigation for University Pop. Program Development regarding project matters.
Noyes, Robert	July-Aug	India	Evaluation of population program of the Rural Health Research Center at Narangwal.
Omran, Abdel	July-Aug	Colombia, Kenya, Lebanon, Turkey, Iran, India, Taiwan, Pakistan, Philippines	Member of UNFPA/World Bank site visit team.
	Sept-Oct	Iran, Pakistan, UAR	
	Dec	Morocco	To attend IPPF-sponsored seminar on Islam and planned parenthood

Paydarfar, Ali A.	Oct-Dec	Iran	Consultation with Iranian family planning officials, universities and government ministries on project development.
Poddar, D. L.	Oct	Indonesia, Japan, and return to India	Attend 5th Asian Congress of OB/GYN in Djarkarta; and, attend 2nd Contrib. Conf. in Tokyo of IFRP.
Polgar, Steven	Oct-Nov	Senegal, Ghana	Meet with university faculty in Senegal and at University of Ghana concerning development of African Universities Population Program Development project.
	Nov	Ghana, Switzerland	Attend conference of population/family planning officials in Geneva and consult with University of Ghana officials on Population Prog. development.
	May	Ivory Coast, Ghana, and Tunisia	In Tunisia and the Ivory Coast to consult with universities regarding potential sites for Population Program development; in Ghana to discuss administrative organization of proposed population program with university officials.
	June-July	Uganda	Explore potential site for African Population Program project.
Porter, Cedric	Oct-Nov	Japan, Taiwan, Hong Kong, Indonesia, Singapore, Thailand, Nepal, India, Iran, Egypt	Consultation with present and potential contributors to IFRP and attend 2nd Contrib. Conf. in Tokyo.
Ragab, M.	Oct-Nov.	Indonesia, Japan and return to India	Attend 5th Asian OB/GYN Conf. and 2nd Contrib. Conf. in Tokyo
Rao, B.	Oct	Indonesia, Japan and return to India	Attend 5th Asian OB/GYN Conf. and 2nd Contrib. Conf. in Tokyo
Rose, Hugh	June	Kenya	To take up position in new Kenyan POPLAB

Sakoda, J.	Oct-Dec	Japan, Hong Kong, Yugoslavia	Attend 2nd Contrib. Conf., IFRP; survey computer operation in Yugoslavia for potential data analysis center for IFRP.
Schaefer, Morris	Aug-Sept	Switzerland, Japan, India, Taiwan, Hong Kong, Thailand	Serve as consultant to Joint Commission for Rural Reconstruction in Taiwan, Faculty of Public Health at Mahidol University in Thailand, AID staff and the Staff College of India.
Tiegel, Earl M.	June-July	Thailand	Consultant to Mahidol University
	Nov-Dec	Iran	Consult with officials in various Iranian family planning programs.
	Jan	Sweden	Stopover in route from Thailand assignment at Mahidol University for consultation with European family planning organizations.
Slome, Cecil	Aug-March	Thailand	Consultant to Mahidol University
Smallegan, Marian	June-July	Switzerland, Philippines	AID-funded survey of family planning manpower and training needs in LDCs.
Stetson, Dorothy M.	Dec	Jamaica	Consultation with social scientists in Jamaican institutions for possible membership in IPPC
Stillman, David G.	Dec-Jan	Ghana, Togo	Attend African Regional Population Conference; in Togo to consult with potential IPPC membership contacts.

Stillman, Jeanne B.	Dec	Ghana	Attend African Regional Population Conference.
Tan, W. K.	Oct	Indonesia and return to Singapore via Japan	Attend 5th Asian OB/GYN conference Attend 2nd Contrib. Conf., IFRP in Tokyo
Sussman, Marvin B.	Nov-Dec	Italy, Yugoslavia	Consultation with FAO officials on on-going programs in E. Africa; In Yugoslavia, for consultation on cross-national families' studies.
	Apr-May	Russia, Iran	In Russia to attend conference in population; in Iran to explore potential projects with universities in Iran.
Trudeau, Robert H.	June-Sept	Puerto Rico	Confer with colleagues on P.R. research segment of IPPC.
	Oct	Puerto Rico	Secondary development of Puerto Rican research segment of IPPC
	Mar-Apr	Puerto Rico	Finalization of questionnaire distribution on Puerto Rican research segment of IPPC

Uhlenberg, Peter	Dec	Ghana	Attend African Regional Population Conference
Van Wie, William	May	Ghana	Hold discussions regarding administrative organization of proposed university population program in Ghana
Watkins, Billie E.	Oct	Japan	Attend 2nd Contrib. Conference of IFRP
Wells, H. Bradley	Feb-Apr	Philippines	Assignment to Xavier University in connection with field work phase of data collection at Mindanao Center for Population Studies; Negotiations with USAID Mission on extension of Philippine POPLAB

