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REPORT FOR 1969-1970

TO THE

AGENCY FOR INTERNATIONAL DEVELOPMENT

ON THE

INSTITUTIONAL SUPPORT GRANT 211(d)

TO THE

CAROLINA POPULATION CENTER

UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL

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I. BACKGROUND AND SUMMARY

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 5-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 second 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."

Accomplishments are reviewed in the following sections. The Center's basic organization was strengthened through formation of an International Programs Office, to help coordinate links between University resources and agencies and institutions overseas, and a U.S. Programs Office, to facilitate relationships with field "laboratory" situations in the U.S.A. Whereas use of 211(d) funds for staff development during the first year involved substantial new recruitment, such funds were concentrated this year on continuing support and new involvement of 27 existing faculty, and also to cover two new recruits. Other new faculty members were added under special project funding. Of the total 211(d) expenditures in 1969-70, 63% covered professional faculty salaries, up from 50% the first year. The 211(d) support for basic library and reference services this year focused more on qualitative improvement and strengthening special information resources. The teaching program this year also added only a few new courses and leveled off with 99 regular trainees and over 140 short-term trainees and visitors, working more toward consolidation and quality. Research activities expanded substantially, especially tooling up for operational studies on family planning program development, population measurement studies, biomedical research, and population policy studies. The Center's relationships with its own research and teaching area in the Southeastern United States were strengthened, as were its links with collaborating agencies and institutions especially in Thailand, India, Iran, and Egypt, while relationships with Chile fell into limbo. The Center's staff continued to participate in consultation and supportive services with AID and various UN agencies. It was also utilized intensively during the year by the Presidential Task Force for International Development and by the International Planned Parenthood Federation.

Expenditures this year of \$576,000 somewhat exceeded the earlier projected level for this period, but an under-expenditure last year leaves

the total obligation slightly below the projected cumulative target for the grant period so far. Progress was made also toward the 211(d) program goal of helping to generate continuing support to the institution from other sources. Funds directly obligated by the Carolina Population Center rose this year by 37 percent, to \$2.27 million. Of this total, the AID 211(d) grant funds provided 25.3 percent. Other support, mostly for project-specific grants, came from Ford Foundation (22.9%), Rockefeller Foundation (11.0%), other U.S. government projects (27.0%), and the University and other sources (13.8%). In addition, the enhanced program capacity helped to generate research, training, and service activities for which funds need not be channeled through the Center, though the Center continues to provide general supporting and coordinating services. An example is the new reproduction biology research program, funded by the Rockefeller Foundation and by a major State budget allocation from the University's medical school. Such additional funding of population research and teaching activities, not directly administered by the Center, rose by the end of 1969-70 to over \$3 million. Thus the annual total population program budget, stimulated to a large degree by the 211(d) grant program, rose to over \$5.3 million. Activities to which such additional sources have contributed are also noted in this report.

Progress assessment for this year is felt to be satisfactory. Plans for the next year include further strengthening of project administration support capacities, and staff deepening in population program administration, social work, nursing, and population education and in political, economic and psychological studies on population dynamics. An increment should occur in related teaching, research, and service activities. Agency service relationships especially with the U.N. system will be augmented. Field program relationships will seek both immediate program relevance and institution-building contexts. Links with Africa will especially be strengthened.

II. 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 what 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 1969-70 by budget category are presented in Section III.

A. Organization

The basic structure of the Center was further strengthened during the year. The Center's Director was assisted in overall planning and operations by a Program and Budget Committee and by a group of seven Associate Directors, from major professional disciplines and interests represented in the program. An International Programs Office was also established as a unit within the Center, especially to help coordinate relationships and facilitate joint projects between University resources here and agencies and institutions in other countries. This office helps to build new interests and capacities for overseas population activities and acts as a secretariat to the faculty area study groups. A U. S. Programs Office was also established, to build the Center's access to and relationships with local and national agencies in the U. S. which provide the Center's own immediate "laboratory" for teaching and research. A third new unit, the Academic Programs Office, is now planned to help facilitate growth and coordination of immediate, on-campus population research and teaching.

The number of faculty members on this campus and at Duke University, North Carolina State University at Raleigh and at the Research Triangle Institute who have become active participants in the program has risen from a total of 94 last year to 111. A key to the population program activities, showing general areas of interest and involvement of departmental disciplines, is attached as Appendix 1.

The program continues to depend a great deal on special study groups which are concerned with various facets of the population field. Problem-focused study groups are concerned with such topics as population policy, reproductive biology, population education and family planning program organization, and such groups are encouraged to seek separate funds for special programs of research, on such subjects as population measurement and population systems analysis. Area-specific study groups provide a means of coordinating the interests of faculty members from different disciplines who share a concern with population problems in a given

geographic area. Such working groups exist for North Carolina, India, Thailand, Chile, UAR and Iran. Departmental programs have also continued to develop, as in the disciplines of anthropology, sociology, political science, biostatistics, maternal and child health and health administration, which involve special efforts to build a teaching program and research effort to focus the insights of that particular discipline on the population field.

The Center during 1969-70 has strengthened its basic administrative staff to handle financial and personnel administrative matters, information and reference services, coordination of educational programs, organization of special conferences and training activities, and publication services. Special attention is being given to strengthening basic grant monitoring capacities. Budget operations are now organized around 77 project-units of work, each having specified objectives, budget, direction, and deadlines. Standing committees from the faculty help guide policies and procedures for the library, publications, fellowships and visitors. Another 3,850 square feet of headquarters office space has been added this year, to make a total of 14,350 square feet, in addition to the space utilized for population-related activities by participating departments. The special central means for stimulation, coordination, and support of the program are now primarily financed from the AID institutional grant. Some funding comes also from University sources and from the remainder of a general grant from the Ford Foundation. Usual administrative overhead is wholly covered by the University.

The Center during 1969-70 further strengthened its relationships with the University's Institute for Research in Social Science, in connection with regional demographic studies and an international study on population policy. Areas of collaboration are being explored with the Center for Health Services Research which is newly established here. Also, joint activities have further developed with the Reproduction Biology Laboratories of North Carolina State University and with the Econometric System Simulation Program of the Economics Department at Duke University.

B. Staff development

The faculty of the population program was substantially strengthened during 1969-70 in several ways, as reviewed below. During 1968-69, the AID 211(d) grant had enabled recruitment of nine new faculty members, but in 1969-70 the AID grant funds were focused more on continuing support of last year's recruits and supporting strong program participation from other, existing faculty members.

1) Recruitment of new faculty members. The AID grant funds made possible the enlistment of two new faculty members and four research associates to fill certain key program needs, during the year. Professor Marvin Sussman, Chairman of Sociology at Case Western Reserve University, joined the Center to help with general program planning and to strengthen international studies on family-level dynamics of birth control. Professor Thomas Steahr joined the staff to build basic demographic services and to help in the population program planning and evaluation areas. Richard

Brewer, an information retrieval specialist, joined the group as a research associate with a joint appointment in the School of Library Science, to help plan a program of improved population information exchange. In addition, three research associates were employed for part of the year in order to accelerate the development of the Center's population and family planning "laboratory" area in North Carolina. This extra effort to strengthen access to experimental program situations in nearby rural areas was felt this year to be essential for building the Center's worldwide capacities for population research, teaching and services.

Recruitment of other new faculty members to the program occurred during the year, without support of 211(d) funds, but certainly facilitated by the presence of the institutional development grant. Special project funds made possible the enlistment of six new full- or part-time participants in the area of family planning organization, one in population education, one in social research and evaluation, one in population statistics, and one in economic demography. The Laboratories for Reproductive Biology, which are supported entirely by The Rockefeller Foundation and by state funds, added eight research faculty members. The Population Laboratories program, and AID-supported effort to strengthen statistical measurement of population dynamics in selected LDCs, added three new professionals. The Center also benefited from visiting faculty services of Dr. C. Chandrasekaran, advisor on population programs and policies to ECAPC.

2) Support for existing faculty. Selective, partial salary support made possible by the AID 211(d) grant has proved very effective in mobilizing the talents of other, existing faculty members, helping to disengage them from other duties and to strengthen their participation in the types of population research, teaching, and service functions needed by the Center. Partial support for this purpose was provided for a total of 27 faculty members: six in the area of family planning program organization, five in population statistics, four in family planning education and training, three in reproduction research, two each related to the areas of population policy, family life education, population anthropology, and social demography, and one in the psychology of fertility.

3) Supporting staff. The AID funds this year enabled new recruitment of two key administrative staff members to work in the areas of publications and planning and special projects. The AID funds continued to cover the staff of the Center's library and reference services unit and training office. During this year the 211(d) funds also provided full or partial support for 11 research assistant-level positions and 16 secretarial-clerical positions, as needed to maximize the effectiveness of the professional faculty.

4) Professional growth. The AID funds continue to strengthen growth not just in numbers but in depth and breadth of competence of the existing faculty and staff. Study Groups assisted by the Center serve as seminars for exchange and discussion of new developments in the field, and the Center's library and reference services directly foster professional growth. The program of visiting speakers and other special events also serve to stimulate population program participants. The Center also selectively finances faculty travel to attend professional conferences and special activities relevant to population program interests.

C. Information and reference services

Library service. The library's reference collection, with recent weeding-out, is leveling at about 5000 volumes. Journals and periodicals have risen from 160 to 200, and the library has added a regular scanning service for population-relevant articles, to produce a monthly index to periodical literature on population and family planning. This and a periodic listing of new library acquisitions will be sent to AID population officers, other libraries and centers and interested individuals throughout the world. Increased attention to acquiring materials on geographic areas of particular concern to the Center has produced area files including over 1500 items. Special reprint files also include over 2000 items. Reader service averages about 30 persons daily, and special reference activities continue to grow. Continuing contacts and exchange with population information services abroad are increasing. This general strengthening has been almost wholly financed from the AID 211(d) grant.

Publications program. The Center's publications office continues to issue a quarterly Newsletter. It has added an essential internal communications service by producing "Poptalk," an informal newsletter which keeps faculty and staff in the population program aware of each other's current activities, travel, meetings, staff changes, etc. The Center's technical monograph series, established last year to help disseminate reports of longer studies and syntheses of new knowledge, has produced seven new technical volumes. A reprint series has been established, in order to make easily available recent articles produced by the population program faculty, to a mailing list of 2700. This office has also assumed responsibility for press relations.

Family Planning Educational Materials Unit. This unit, still mainly funded by the Rockefeller Foundation, continues to serve as an international clearinghouse and production center for family planning mass communication materials. It provides extensive support to OEO and other domestic family planning program needs. Its products have also been acquired by AID for use in connection with population assistance programs abroad. This unit is especially involved in consulting and training activities abroad, and in U. S. training of family planning communications specialists from other countries.

D. Educational activities

Degree programs. During 1968-69, the AID grant support had enabled a marked increase in the number of course offerings on aspects of population and family planning, from 24 to 39 courses. During 1969-70, another 4 courses were added, and greater emphasis was placed instead on consolidation and increasing quality of the training program. A list of population-related courses in 1970-71, along with more general courses found to be of value to population students, is presented in Appendix 2. The number of students here who specialized in the population field had increased from 62 in 1967-68 to 98 in 1968-69; the number leveled at 99 during 1969-70. A list of students during 1969-70 is attached as Appendix 3. The students register in existing academic departments for degree purposes, but their

study programs involve a core of population-related courses selected from several departments, so that they acquire both depth in the application of a basic discipline to the population field and a grasp of the broader field. A weekly, cross-disciplinary seminar was organized for all the population student group during the fall and spring semesters, and the group also participates in special lectures, lunches and other events.

Among the students enrolled during 1969-70, about 60% were from the U. S., a slight increase from the previous year. Most of the U. S. students were oriented towards international population work. About half of all the students came from the health sciences and half from other fields. Some U. S. students were provided fellowship support under an NIH population training grant to the Center, and others were sent as mid-career fellows from AID and other agencies. During 1969-70, the student group included four Ford Foundation Mid-Career Fellows. Among the foreign trainees, who came from 15 countries, five were sent directly by AID and others came with the support of Ford Foundation, Population Council, WHO and other sources. Five of the foreign students received fellowship support from the Center's AID institutional grant funds; these were individuals who would not otherwise come under the usual AID participant programs, but whose experience here will foster later collaborative research and training activities between this Center and overseas institutions.

Special training services. During 1969-70, short-term orientation services were provided for a total of 147 persons sent to the Center by USAID, the Ford Foundation, Population Council, Rockefeller Foundation, U.S. agencies, HAW, and others. The Center's training office organizes carefully structured programs of from one day to several months' duration for such persons. During 1969-70 the amount of faculty time required for such services came to a total equivalent of 10.2 faculty man-months of effort, slightly higher than last year. Costs of such special service are primarily borne by the AID grant funds. This investment helps to broaden faculty competence, stimulate students, and strengthen key overseas relationships, as well as serving the world population movement. The largest number of such special visitors in 1969-70 were internationally-oriented professionals from the U. S., followed by persons from India (19), Iran (5), Pakistan (5), Mexico (4), Thailand (4), Egypt (3), and Chile, Colombia, Cameroun, England, France, Lebanon, Philippines, Puerto Rico, Sweden, Switzerland, Taiwan and Yugoslavia (all 2 or less). A U. S. Public Health Service family planning specialist was also assigned for a year's experience with the Center during this period. A list of short-term trainees and visitors is provided in Appendix 4.

Conferences and workshops. The Center during 1969-70 sponsored or co-sponsored ten special meetings to explore various aspects of the population field as summarized below. Some of these reflected the Center's strong emphasis this year, noted earlier, on further consolidation of the basic program within the University and of the Center's own, immediate field "laboratory" resources, while other conferences focused on particular problems of international population programs. Only the first two listed below were partially helped by AID 211(d) funds, the remainder being covered by special project funds from state, foundation, or AID contract sources.

1) Symposium on "Man and Environment: Quantity versus Quality of Life." For five days in mid-March, several thousand students were involved in a major series of lecture-discussions on population matters, co-sponsored by the Center but primarily student-organized. This event brought major speakers to the campus, including Boulding, Coale, Wolman, Dubos, and others, and substantially advanced the support and interest of faculty and students in the population studies area and the Population Center.

2) Third National Workshop on Population Library and Information Services. On May 14-15, 1970, the Center co-sponsored with The Population Council the Third National Workshop concerned with improving systems of organizing and disseminating population research and program information. Sixty specialists from over 30 different national and international organizations participated. Task groups reported on progress in their subject area, and the meeting helped to clarify the Center's own role and further planning.

3) Family Planning Information Symposium: Search for Direction. On February 19-20, the Center's Educational Materials Unit sponsored an intensive review of the current status of family planning mass communications work, and discussed next steps ahead. The 20 participants included representatives from AID, The Population Council, Population Reference Bureau, Planned Parenthood-World Population, Church World Service, and the U. S. Department of Health, Education and Welfare.

4) The First POPLAB Planning Conference. On April 13-15, an intensive conference reviewed key problems in population statistics measurement and opportunities for improvement, administrative considerations in establishing POPLAB projects in selected areas abroad, and further program plans. Participants included AID representatives and selected demographic consultants.

5) Population Research Symposium for Institutions in the Research Triangle Area. On April 23, 1970, the Center co-sponsored with the Research Triangle Institute a meeting of 150 individuals concerned with aspects of population research who came from ten different institutions or agencies in the Research Triangle area, including universities and colleges, private groups and governmental agencies. In two general sessions and ten different special subject-area discussion groups, present experience and interests were reviewed and opportunities for closer future collaboration were explored.

6) Workshop on Population Education in Secondary Schools. In planning for a new program to advance international population education, the Center, with the UNC School of Education, has become increasingly concerned with the need for an initial phase of advancing U. S. thinking in this field. With this in view, the Center co-sponsored (with the Population Reference Bureau and Planned Parenthood of Baltimore) the first U. S. national meeting on population education methods appropriate for secondary schools in the U.S., held in Manresa-on-Severn, Maryland, on April 26-29, 1970. The 50 participants included educators from throughout the U. S., and the discussions helped to summarize U. S. experience up to now, to identify general issues and to provide a stronger base for further planning.

7) Seminar on Family-Level Rationales for Population Policy.

Explorations of population policy research needs have shown that, paradoxically, studies on rationales for population policies at the aggregate, macro-level of analysis have received more attention than studies on relationships between fertility patterns and human welfare at the family level. To help fill this gap, the Center availed of the Groves Conference on the Family held April 26-29, 1970, at Winston-Salem, North Carolina, involving national and international experts. The Center organized a seminar aimed at strengthening scientific understanding of basic links between family growth patterns and health, psychologic, genetic, sociologic and other implications for individuals and families. The papers from this meeting will suggest implications for further study and immediate implications for population policy.

8) Workshop on Learning and Change in Family Planning. On May 19-24, 1970, a special seminar was organized for health educators working in the state of North Carolina, exploring their roles in family planning. This effort aimed at learning more about basic problems of family planning education, as derived from recent field experience, and improving the quality of field training of students assigned to participate in local action programs.

9) Mass Communications in Family Planning Programs in Near East and Africa. On June 6-18, 1970, the Center co-sponsored with the Government of Iran an intensive Workshop on Family Planning Mass Communications Strategies and Methods. The meeting, funded by the Ford Foundation and assisted by AID staff, involved 82 participants from 16 Near Eastern and African countries. It sought to advance the communications aspects of national population program planning, by making experience elsewhere available to key personnel and by increasing their skills. The program involved use of simulation methods and formulation by the participants of their own future program plans.

10) Workshop on U. S. Family Planning Administration. On June 15-16, the Center sponsored an intensive workshop especially for family planning administrators in the southeastern U. S. states. The goals were to help identify problems, improve operations, achieve more efficient sharing of future experience, and improve research and training linkages with such program situations.

E. Research activities

Since research activities of the Carolina population program are funded from various special project sources rather than from the AID institutional grant, the Center's research program will be generally reviewed, indicating current developments and emerging interests.

Population program development studies. Efforts in this area aim to develop more general models for population program development which can help to raise the efficiency of planning, implementation and evaluation of such programs and can facilitate preparation of administrators. Also sought are improved techniques for analysis of specific program components,

and clarification of problems and demonstration of improved methods of operation through experimental field studies. Collection of in-depth administrative case studies has helped provide basic materials for such efforts. McLaughlin, Trainer and Schaefer are working to evolve, formulate and test general program models. Naylor and Moreland are evolving a computerized management game which simulates decision situations faced by administrators.

Field studies on aspects of family planning program design are underway in several counties of North Carolina, and a major new OEO-supported experimental program under Johnson will test and evaluate methods for augmenting rural family planning services in 20 North Carolina counties. Studies on local problems of contraceptive marketing and distribution have been undertaken. A study of potential roles of indigenous midwives in family planning has been completed. Studies by Schultz, Trainer and McLaughlin related to improvement of computerized record handling in family planning service programs. Collaboration exists with O'Connor and others at MIT concerned with this area. Regionally, Allen is embarking on a study of inter-agency, and other, population program relationships. On a national level, Pdry, Johnson and a collaborating faculty group are engaged in a long-term project which involves helping to design and evaluate new programs in 12 cities across the U. S.; strategies in these cities involve different balances of service and educational inputs. Evaluation efforts include measurement of changes of incidence of undesired birth timing and of excess fertility in these and a group of control areas, and development and testing of indicators of adequacy of service activities.

Internationally, close contact is maintained with new experiments in program design being undertaken by a number of collaborating institutions and agencies. A major project sponsored by AID now aims at improvement of population program and policy designs through analysis of present problems in a number of countries, formulation, field testing and demonstration of improved operational methods, and development of more general models which can strengthen program planning and evaluation functions and can be used for training administrators and policy makers. McLaughlin, Trainer, Naylor, Jain, Kessel, Jenk and others are now engaged with methodological aspects of this project or with field project development in several countries. In India, Jain and McLaughlin have worked especially to encourage the interests of administrative teaching and research institutions in operations research on family planning organizational problems. Jenk and Kessel have focused especially on problems of strengthening aspects of voluntary family planning organizations in India, and developing pilot project areas for testing improved program methods. An administrative analysis of the Taiwan family planning program is underway. Possibilities for field studies on the "epidemiographic surveillance" concept are being explored. Problems of manpower analysis and development for the family planning field are of special concern to Jain, Trainer, McLaughlin, Mathews, Lynton and others. The Center works closely with the Research Triangle Institute, and is involved especially in the program of operations research support to be provided by RTI on contract to AID's NESB Bureau.

Demography. Research on population measurement continues to be emphasized in a program under Linder which seeks to strengthen the theoretical and technical bases for efficiently detecting demographic changes in underdeveloped areas. Wells, Abernathy, Coulter and others are especially concerned with studies on non-sampling errors and new measurement methods. Under Linder, Krotki, Meyer and others, a major new project is also underway to build "population laboratory" studies in collaboration with local institutions in at least four less developed countries. These will involve in-depth, longitudinal observation of demographic factors in selected areas, to test and demonstrate improved measurement methods and to study population dynamics under different conditions. Substantive demographic research activities include a large-scale study by Hamilton and Steahr of the demography of the State of North Carolina, the most detailed analysis of a state population ever done in this country. Hamilton and Steahr are also analyzing demographic trends in the southern region of the U. S., up through the 1970 census. Overseas demographic research activities include Bauman's present studies of fertility dynamics in Thailand, Omran's analyses of population dynamics in Near East countries, and Wells' and Namboodiri's collaboration with the important current studies of fertility dynamics at Gandigram, in South India. Marshall is writing up his studies of cultural factors and fertility dynamics in a North Indian village, and Uhlenberg is completing his work on fertility in a Spanish-American population. Paydarfar is pursuing basic studies of Iranian population dynamics, and Gulick is embarking on anthropological field studies of population change in Iran. Namboodiri is studying family-level relationships between economic factors and fertility patterns. Sheps and Lachenbruch and Horvitz continue work on demographic simulation models which clarify interactions among variables within population systems and which can provide sounder bases for population projections. Hawley continues his basic work on population theory and urban ecology, and basic urban studies are also being pursued by Purdy in sociology and members of the Center for Urban and Regional Studies. Thompson has recently reviewed research on relationships between family size and psychological development, and Insko is clarifying cognitive factors in contraceptive use. Sussman and Cogswell are exploring factors in family structure and interaction which influence demographic change.

Biomedical research. The new Laboratories for Reproduction Biology, under the direction of Dr. Stanley Bennett, will seek understanding of reproductive processes at the level, for example, of studies on sperm motility mechanisms and membrane phenomena affecting fertilization. Van Wyk is studying basic endocrinological factors influencing sexual maturation and fecundity. Kane is studying the influence of sex hormones on emotional responses and Morris and Udry are studying hormonal effects on libido and coital frequency. Hulka and K. Omran continue basic immunological studies on the blastocyst and on the induction in cervical tissues of immune response to sperm antigens. Hulka continues to direct a special research program on improved methods of male and female sterilization. Hendricks and others are concerned with clinical studies on existing abortion techniques, and Hendricks is developing the first clinical studies in the U. S. on prostaglandins and their analogs as abortifacients. Studies are also planned to explore possibilities of intrauterine and intracervical

release of chemicals for contraceptive purposes. Kessel, Cassel and others are planning a major, international collaborative study of pregnancy termination and related problems. On an epidemiological level, Omran has developed and is coordinating a WHO-supported international program of studies on relationships between fertility patterns and family health. In the genetic area, Pollitzer is involved with studies of characteristics of population isolates, with interest in the biologic effects of differential fertility and birth control. Elston is studying inherited behavioral traits, with interest in birth-order and spacing effects on these.

Population and sex education. Research in this area is still especially needed for its sound further development. Cogswell is studying behavioral factors influencing sexual behavior and fertility among disadvantaged teenagers in North Carolina, and is identifying cognitive factors which influence communication on this subject among groups in Baltimore. Sussman's cross-national study of family dynamics also has educational implications. Burleson maintains contact with studies in a formal education context in Colombia and aims for related studies in this state. Meyers at Duke has helped to formulate basic population curriculum materials. Di Bona of Duke is studying institutional and agency factors relevant to introduction of population education teaching. The School of Education faculty is increasingly interested in this field.

Population policy. The Center is especially interested in the study of goals, content, and process of development of population policies. Spengler's theoretical work continues to explore overall policy goals concerning both growth and distribution patterns. Policy-oriented economic studies now require better accounting for "feedback" effects between demographic and economic variables, and work on these lines is being pursued by Naylor, Chu, Moreland, and others. David and Lindsey are also concerned with this area. A recent addition to the Chapel Hill faculty is McFarland, who developed with Enke the "Developa" models of population and economic growth. A research area of growing interest here is closer examination of the implications of population patterns for commerce and industry, and ways whereby business leaders can help influence socially optimal trends in population composition, growth and distribution. Studies on effects of different growth patterns on political, education, and other social institutions also demand much more attention.

In addition to macro-level studies, better understanding of family-level rationales for birth planning policies are of special interest to faculty members in psychology and maternal and child health. Population policy studies ultimately lead to consideration of human value factors relevant to this area. Nash continues explorations of implications of religious value systems for human reproduction. The key problem of developing better ways to measure population-relevant value "profiles" in different cultural groups is the object of a study planned by Prothro, Allen and Thompson.

Research on political dimensions of population policy is the focus of a political science departmental group, and several graduate students are concentrating on relationships between population and political change,

especially in Latin America. Measham studied local-level policy development in this State, and Bergman is now studying national population policy development in the U.S.A. Flash, Bergman and others are planning for establishment of an international comparative population policy research program.

Kamala Rao, head of the Social Research Division of India's Central Family Planning Institute and now a visiting faculty member at Chapel Hill, continues her analyses of relevant previous research in India and is exploring further policy-oriented studies. Legal and legislative aspects of population policy development are main concerns of Katz and Jones. Jain completed a detailed study of the dynamics of abortion reform legislation and is engaged with comparative studies in U. S. states. As a specific element of population policy implementation, incentive systems which might influence fertility are of particular interest to the Center. Pohlman has done related field studies in India; the theoretical base for this matter is being expanded from an economic view by Tangri; and Balfour is concerned with formulating workable designs for further field testing.

Population theory. The Center still feels the need for basic strengthening of general population theory, to provide more direction to further research and action. In the population field, this especially calls for examining and linking together the explanatory concepts already available from various special disciplines, each of which has been limited in the past by its own methods of observation, and achieving contributions from other disciplines, potentially able to fill theoretical gaps, but not yet involved in the field. The Center now approaches this goal through joint planning, interdisciplinary projects and seminars, and help in orienting new talent to the field. Current research activities at Chapel Hill which especially relate to the need for overall theoretical development include basic ecological studies which explore population and environmental relationships in terms of energy transformation, epidemiological studies of demographic transition, linkage of general psychological theory to fertility behavior, studies in urban ecology, computer modeling of demographic processes, and studies of demographic relationships in econometric system simulations.

F. Field program relationships

Continuing contacts with selected other agencies, institutions and population groups are essential, in order to learn from experience elsewhere and to foster mutually useful training and research efforts. Such associations continue to strengthen, as a general result of the AID 211(d) enhancement of capacities, though specific costs of collaborative activities are all borne by other than 211(d) funds.

North Carolina and Southeastern U.S.A.: The Center continues to work closely with this State, as its immediate "laboratory" for service, research, and teaching. During 1969-70, help continued to be given to State welfare and health agencies for development of joint policies and plans for family planning service programs. Students continue to be assigned directly to state and county family planning programs for practical

experience. The Center has again contracted with the State Department of Administration to help produce county population estimates and projections, for planning purposes. The Center also was under contract during 1969-70 to provide evaluation and consultative services to OEO-supported family planning projects in this area. The Center also maintains contact and service relationships with southeastern regional agencies concerned with the population field. The Center now produces general information on regional population trends and their implications, and hopes to strengthen its program of southern regional studies. The Center is sponsoring a major conference in October 1970 on population priorities and options for commerce and industry, especially for Southern business leaders. Collaborative relationships for research and training purposes exist in Georgia, Florida and other sites.

Thailand. The Center maintains its Rockefeller-sponsored program of exchange and collaboration with the Population and Social Research Center of Mahidol University in Bangkok. During 1969-70, U.S.A.I.D. has contracted for provision of further support for this Bangkok Center and the Public Health Faculty of Mahidol University. A visiting faculty member from Carolina resides in Bangkok.

India. The Center group has over 60 man-years of work with India's population and family planning program, and they continue to maintain close contacts with India through faculty and student exchange and special services. Under an arrangement with the International Planned Parenthood Federation, during 1969-70 the Center made a resident consultant available to the Family Planning Association of India. Relationships are maintained with the official Department of Family Planning, the Office of the Registrar General, the Central Family Planning Institute, the National Institute of Health Administration and Education, the Demographic Research and Training Center at Chembur, Allahabad Agricultural University, the Indian Institute of Management at Ahmedabad, the Administrative Staff College at Hyderabad, and Kerala University. A "sister-institution"-type relationship exists with the Gandhigram Institute of Rural Health and Family Planning and Madurai University in South India.

Iran. The Center has been invited by Iran's Under Secretary for Family Planning to provide supporting services to his office and to help develop population training and research programs in three Iranian universities. Consultative visits have been made to Iran by faculty members from the Carolina group, in connection with this request. Selected Iranian family planning officials are being sent for study at Chapel Hill by the Population Council. Dr. Gulick will work during the next year at Isfahan, to help build population and family planning research.

Africa. Close links continue with colleagues working with Egypt's official family planning program, the American University in Cairo, the Egyptian Association for Population Studies, Cairo University's new population center, and other concerned university groups. In Morocco, a collaborative "population laboratory" research study is being planned. In sub-Saharan Africa, the Carolina Population Center is hopeful of working closely with the University of Ghana, to build a long-term program of mutual exchange.

Latin America. The Center was requested by AID to develop a relationship of exchange and collaboration with the Population Studies Center in the Faculty of Public Health at the University of Chile. Political uncertainties, however, have slowed development of this relationship. In Colombia, collaborative pilot studies in population education have been undertaken, and a new "population laboratory" project is now being developed with the Colombian National Statistical Department. In Brazil, Naylor is involved with consultation on demographic aspects of general economic planning models at the Vargas Foundation, and other links exist between Brazil and the University of North Carolina which are relevant to population research and training.

G. Direct services to population-related agencies

The increase in the Center's overall capacity, largely due to the AID supporting grant, was further reflected during 1969-70 in the amount of direct participation by Center faculty in consulting missions, panels, and boards of U.S. and international agencies in the population field. This participation, in turn, helped further to strengthen the Center's competence.

AID. During 1969-70, Freymann and Linder served with an advisory group on population matters to AID's Technical Assistance Bureau. Linder served as a member of AID's Research Advisory Committee, and Freymann consulted with AID's Population Office, Near East and South Asia Bureau, and served as a member of the population panel of the AID-supported South East Asia Development Advisory Group. Lynton assisted with AID-sponsored training courses operated by the Government Affairs Institute and Bulka helped in the Foreign Service Institute's courses. With AID missions abroad, Linder and others of the POPJAB program consulted in several countries on approaches to improving population measurement. Burleson discussed population education strategy with AID staff in India, Pakistan, and Colombia. Chu, Trainer, and Naylor discussed approaches to family planning and policy development problems in Korea, Thailand and India. Edmands discussed problems of nursing education for family planning with AID staff in Far East and Asian countries and with AID's nursing group in Washington.

Presidential Task Force on International Development. The Center was commissioned by the Peterson Committee to produce a report in December 1969 on possible future U.N. roles in the world population field. The report required an intensive effort, involving 11 faculty members from the Center, who represented over a century and a half man-years of experience in the population and family planning field. It analyzed strengths and weaknesses of U.S. assistance to family planning work abroad and projected organizational and financial needs for an effective world population program in this decade.

United Nations System. Continuing, informal contacts and exchange were maintained with staff of the U.N. Fund for Population Activities and the U.N. Population Division in New York. Jain consulted with WHO on aspects of family planning program management, Freymann helped to develop a new WHO Expert Committee on Family Planning Administration, Polgar served

as a member of the WHO Expert Advisory Panel on Human Reproduction, and Omran helped WHO develop collaborative studies on the relationships between family size and family health in several countries. The World Bank involved Jain, Jenk, Kessel and Freymann in its planning for new population-related programs during the year. UNESCO utilized Barleson and Blake in connection with population education and mass communications, and Buckner was used by WHO, UNESCO, and ECAFE on aspects of library and information resource development. Mathews was used by ECAFE in implementing a regional conference on training of family planning personnel.

International Planned Parenthood Federation. The Center established a general arrangement for provision of consultation services to national affiliates of the IPPF. After discussions in the U.S., London, and India, Mr. Jorgen Jenk undertook an assignment to the Family Planning Association of India to help in matters of administration reorganization, planning an expanded program, formulation of innovative new project units, and interpretation of these developments for new IPPF funding.

Department of Health, Education and Welfare. The National Institutes of Health population research program was assisted by Linder, Ramboodiri, Udry, Polgar, Freymann and others as members of advisory and review committees. Linder chairs the United States National Committee on Health and Vital Statistics, and Wells continues to serve as a project officer with the National Center for Health Statistics.

Foundations. With the Ford Foundation, Mathews, Freymann, Wells, Blake, Omran, and McLaughlin served advisory roles on general subject areas or country programs. Hulka assisted The Pathfinder Fund and Rockefeller Foundation in biomedical research strategy, and Udry and Johnson have consulted on Rockefeller Foundation involvement in the Thailand population program.

Others. Freymana is a board member of Planned Parenthood-World Population and a member of the Advisory Council of the Center for Family Planning Program Development in the U.S. Edmands and Allen serve on population and family planning committees of the American Public Health Association, and Allen serves with the Board of General Social Concerns of the United Methodist Church. Hawley advised on migration with the International Biological Program. Many other members of the Center's faculty have served with regional and state programs concerned with population and family planning.

III. EXPENDITURES BY BUDGET CATEGORY

The narrative above describes substantively the 1969-70 program progress of the Center and indicates areas of major support from the AID grant funds. Although the 1968-69 expenditure level had been somewhat lower than earlier projected, the obligations of the 211(d) grant funds during the period of July 1, 1969 - June 30, 1970 totaled \$575,597; somewhat higher than projected earlier. This reflects needs and opportunities to proceed with building capacity. Also, a problem was stated last year, that "Although U.S. governmental interest in population matters is rising, the additional financial support from domestic population program sources which can ultimately help cover basic Center expenses is not yet in sight." This basic problem, of slow mobilization of other U.S. program sources, still obtains.

Details of the 211(d) grant expenditure for 1969-70, grouped according to the University's budget object categories, are as follows:

| | FY 70 <u>Forecast</u> | FY 70 <u>Actual</u> | Over (under) <u>Projection</u> |
|------------------------------|--------------------------|------------------------|-----------------------------------|
| Salaries | \$338,000 | \$391,060 | \$ 53,060 |
| Social Security & Retirement | 37,000 | 40,307 | 3,307 |
| Honoraria & Consultants | 6,000 | 6,750 | 750 |
| Supplies | 10,000 | 12,449 | 2,449 |
| Travel | 22,500 | 20,010 | (2,490) |
| Other Direct Costs | 57,500 | 75,084 | 17,584 |
| Stipends, Tuition & Fees | 25,000 | 24,637 | (363) |
| Equipment | <u>4,000</u> | <u>5,300</u> | <u>1,300</u> |
| | \$500,000 | \$575,597 | \$ 75,597 |

A. Salaries--\$391,060

The total salary expenditure of the Population Center program, administered through the Center during 1969-70, came to \$927,310. Of this \$391,060 or 42.2% 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. A Ford Foundation grant covered 14.6% of salaries, Rockefeller Foundation grants 12.5%, NIH grants 7.0%, and the remaining 23.7% came from University and other sources. The AID salary funds, though less than half of the total, provided the flexibility so necessary to make best use of all available resources. Of the AID 211(d) expenditures for salary, approximately \$248,575 (63.6%) were applied to cover professional faculty referred to in Section II.B. An amount of \$113,655 (29.0%) covered costs of supporting staff required for assistance in faculty teaching, research, and service activities.

The remaining \$28,830 (7.4%) was primarily used to pay for part-time assistance, particularly graduate students, in the fields of library work and statistical data processing.

B. Honoraria and consultants--\$6,750

A total of 25 honoraria payments were made, primarily for experts invited to lecture and consult briefly on specific aspects of the total program. This expenditure continued to enrich the Center's development.

C. Travel--\$20,010

During 1969-70 the staff of the Center made 200 domestic trips for family planning-related activities. About half of these had the primary goal of staff development, through attendance at conferences and workshops. About one-fourth of the trips were used for technical consultation concerning specific research, training or service programs, and the rest for exploration of additional funding support for specific projects. Five overseas trips were sponsored, with prior AID clearance, under 211(d) funding. Four faculty members concerned with building the population statistics area of the Center's program and with strengthening overseas relationships, Drs. Linder, Abernathy, Wells and Greenberg, traveled to London to attend the September 2-11, 1969 meetings of the International Union for the Scientific Study of Population and the International Statistical Institute at a total cost of \$1,885. In addition, Miss Betty Edmonds traveled to several Asian countries from March 7 - April 11, 1970 to study problems of preparation and use of nurse-midwifery personnel in population programs, as a basis for more systematic development of the Center's capacities in teaching, research and service in this field; the cost was \$2,120. These five overseas trips were a small fraction of total overseas travel, as summarized in Appendix 5. Such travel was mostly covered under international agency consultancies or specific projects.

D. Other direct costs--\$75,084

This University account category covers various other charges, which include (1) cost of the Center's publications, including photography and art work, printing, addressographing and mailing; (2) all local and long-distance communications with collaborating agencies and institutions, including written communication costs, such as typewriter maintenance, Xerox rental, postal meter rentals, air freight costs for overseas book and pamphlet distribution and telephone tolls; (3) data processing machine time, tape rentals, and programming and consultative services related to the Center's mission; (4) fees for preparation of teaching cases and materials to be used in training courses; (5) incidental costs of conferences, seminars, and workshops, including program preparation and any rentals of electronic equipment, furniture and transportation, and all other costs unascrivable to a specific account. Obligations were greater than projected in this category, in part due to higher prices for basic commodities in this object class, and to increased needs for faculty support and maintenance of program momentum.

E. Tuition, fees and stipends--\$24,637

This amount covered the tuition and living costs of five selected trainees whose support was deemed important for enrichment of the population studies program.

F. Equipment--\$5,300

Costs of space requirements for the program continue to be covered from the University and other sources. The staff augmentation during 1969-70 required the addition of some equipment items needed for faculty teaching and research activities. Such items procured from 211(d) 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> | <u>Purpose</u> |
|---|-------------|---------------------|--------------------------------|
| Manual typewriter | \$ 128 | Royal | Library use with SE-LIN labels |
| Library bookshelves | 859 | Remington-Rand | Book storage in library |
| Electronic calculator | 1,024 | Monroe | Demographic services unit |
| Card catalogue cabinet, tables for reading room, dictionary stand | 812 | Myrtle Desk Company | Library use |
| Electric typewriter | 319 | IBM | Demographic services unit |
| Printing calculator | 1,595 | Marchant-SCM | For use in Area Files Unit |
| File cabinets, book-cases, etc. | <u>563</u> | Miscellaneous | Faculty office use |
| | \$5,300 | | |

IV. PROGRESS ASSESSMENT AND PLANS FOR 1970-71

Each of the sections below will first compare the progress reviewed in Part II of this report against projected goals during 1969-70, and will then indicate expected priorities for work in 1970-71.

A. Organization

During 1969-70, the proposed strengthening of basic organization was achieved, and coordination was improved among population-related activities in the Triangle Universities' area and with other collaborators. Office space was added, as projected, though it is scattered in available rented quarters. This is not ideal but is compatible with the decentralized nature of the Carolina program.

In 1970-71 a goal will be to consolidate the supporting services to on-campus teaching and research activities by establishing an Academic Programs Office. Another goal will be to strengthen capacities for administrative support for new, special projects. Effective patterns have now been worked out for such use (as in the POPAB program), which cover the multiple functions of technical guidance, managerial support, close liaison with AID, further development and effective use of local resources, and coordination with related project activities in the Center and at overseas locations. At least two added key administrative staff will be needed to help assure coherent overall programming and adequate project support.

B. Staff development

During 1969-70, the goal of augmenting staff in the field of international family planning program administration was achieved. The desired strengthening in population education was partially met with one new faculty member, and a strong process of further planning and involvement of existing faculty was established. The projected development of social work professional involvement in family planning also advanced, with creation of a training curriculum, a worldwide exploration of further needs for involvement of this field, and initiation of joint planning with the International Association of Schools of Social Work. The projected strengthening of sociological demography faculty occurred, with University funding, and the basic reproduction biology research program advanced rapidly.

In 1970-71 further strengthening of teaching, research and services related to international family planning program administration will require two more experienced faculty in this area. The population education program should be deepened with another key staff person and more commitment of existing faculty time, and comparable further development is desired in social work/family planning. In nursing, work should progress on exploring alternate nurse-midwifery and auxiliary staff roles in population programs and on training for this field. Work related to manpower planning and to training of trainers will be considerably strengthened. Involvement of present faculty in pregnancy termination studies should rise. An additional

research specialist in political science approaches to population policy should be added, and recruitment of a specialist in economic demography is urgently needed. An anthropologist concentrating in the population field will be added, and faculty commitment to psychological studies relevant to fertility dynamics and population policy should rise.

C. Information and reference services

During 1969-70 the projected strengthening of information services was achieved. Planning went well for increasing assistance relationships with Centers for dissemination of technical population information in LDCs, but work was stalled for lack of the added funding needed. The publications program has taken shape and has routinized policies and procedures. The Center's Educational Materials Unit achieved considerable strengthening of its international service relationships, as anticipated, but hoped-for progress in developing programmed instruction approaches to family planning personnel training is still slow.

In 1970-71 collaborative links should emerge between the Center's library and reference service and four or five key institutional resources in LDCs, and a basic framework for continuing exchange and an international directory of population technical information sources should be created. Hopefully, also, further steps can be taken toward a specific demonstration of automated technical information retrieval services for the population field. A training program in family planning communications methods will be established, and increased emphasis will be given to developing training "packages" for various types of personnel.

D. Educational activities

During 1969-70 numbers of course offerings and students leveled off as projected. Impressions are that quality of the teaching program improved, but methods for evaluating the educational output are not yet adequate. Another goal was to arrange for international internships to provide trainees with practical field experience abroad, but means were found to provide a limited experience only for five students. Special teaching in population education and in social work/family planning were strengthened. Population policy studies benefited from an influx of excellent political science graduate students concerned in this field. Studies on the psychology of fertility advanced, but economic demography teaching still lagged, depending primarily on Spengler's program at Duke. The ten special conferences or workshops which explored particular aspects of the population during this year were twice the number earlier projected.

In 1970-71 educational program improvements will depend considerably upon the staff development goals projected above. A more systematic approach should emerge this year for evaluating educational efforts and providing clues for further improvement. An expanded, AID-supported program for

practical, overseas internship experience is expected to be established. The clearer identification of particular problem areas in the population field should generate perhaps five special conferences or workshops to help clarify issues and mobilize more work. Such meetings are expected to explore family planning program administration issues, problems of family planning manpower development in the education, social work and nursing fields, approaches to population policy research, and building support from business and industry for population programs.

E. Research activities

During 1969-70 the projected emphasis was given to gearing up for more operations research on improvement of program and policy designs, with additional help from an AID contract. Approaching this through collaboration with paragonovernmental or private institutions and agencies abroad required a heavy investment of effort to maintain close contact with interested institutions, a very low-key, background role for the Center's own staff, and opportunistic identification of situations suitable for experimentation on key problems. In view of increasing sensitivities to outside interventions in the population field, we feel that patient development of this indirect assistance method will be increasingly valuable. In demographic research, population laboratory projects proposed to be established during the year were delayed somewhat by procedural problems but were underway at three sites. Biomedical studies on basic reproduction processes, sterilization and abortion progressed better than expected. The Center's interest in encouraging population genetics studies, because of their long-term importance in population policy development, helped to establish an NIH-supported project here in behavioral genetics. In the policy research area, sound planning and increased faculty commitment were achieved.

In 1970-71 emphasis will continue on operations research approaches to improved program and policy designs, working through paragonovernmental or private institutions and agencies abroad. When appropriate, direct assistance may also be given to governmental population program officials on problem-oriented research or evaluation work, using the Center's ability to undertake such help with informality, speed and low visibility. In demographic research, the existing population laboratory projects should be consolidated and one more should be established. Special emphasis will also be given to further work on numerator-analysis and other approaches to measurement problems. In the biomedical area, a key goal will be the establishment of an international network of collaborators for practical field testing and demonstration of new methods of pregnancy termination and contraception. In the policy research area, objectives will be to help clarify research questions relevant to accelerating population policy processes, and to identify competent local collaborators for such work in selected LDCs.

F. Field program relationships

During 1969-70 the strengthening of the Center's U.S. teaching and research base advanced as planned. In India, links with institutions

concerned with population research, teaching and field studies were strengthened, and a strong relationship was established with the India Family Planning Association. In Iran, relationships and planning with governmental and university groups were advanced through mutual visits. The Population Council helped by sponsoring training in Chapel Hill for key officials. The hoped-for expansion of relationships with the Population Center at the University of Chile was diverted by political developments. Associations in Colombia were strengthened through the POPLAB program and work with the population education program there.

In 1970-71 relationships with India, Iran and Thailand should considerably strengthen, on the general lines now established. In the U.A.R., a long-planned collaborative association with the population group at the American University in Cairo should strengthen, and more direct contacts with the official governmental program may emerge. In Latin America, possible further links with Chile are unpredictable. In Brazil, the University of North Carolina has had many previous associations, and the Center hopes henceforth to build stronger links with Brazilian scholars concerned with aspects of population and family planning, recognizing the need for a patient and long-term approach in that situation. The Center has developed increasing faculty interest in Africa; in association with AID, a major effort to build useful institutional links in Africa will be made this year.

G. Direct services to population-concerned agencies

During 1969-70 participation in supportive and consulting services to such agencies exceeded expectations, especially in the case of work for the Presidential Task Force on International Development, consultation on aspects of family planning administration for WHO, and development of the relationship with IPPF.

In 1970-71, participation in supportive activities with AID will continue. The IPPF consultation will continue to focus primarily on India. Also, the Carolina Population Center aims henceforth to give a top priority to possible supportive services to the United Nations Fund for Population Activities and other elements of the U.N. system concerned with population matters. The Center feels the United Nations' role in the population field could have critical future importance, and that a great deal of encouragement and active technical support will be needed to strengthen this role. The Center intends to provide "stand-by" services to the extent possible, for this purpose.

H. Budget projections

For fiscal year 1970-71, expenditures from the AID institutional grant are projected to be \$550,000, somewhat lower than 1969-70. A summary breakdown of this projection by budget category is shown below, followed by a summary of obligations incurred so far and the revised schedule of obligations.

Budget projection, 1970-71

| | |
|------------------------------|--------------|
| Salaries | \$350,000 |
| Social security & retirement | 35,000 |
| Honoraria and consultants | 16,000 |
| Supplies | 20,000 |
| Travel | 20,000 |
| Other direct costs | 76,000 |
| Tuition, fees and stipends | 28,000 |
| Equipment | <u>5,000</u> |
| | \$550,000 |

Summary of projections and obligations

| | <u>Initial</u> obligation <u>projections</u> | <u>Cumulative</u> <u>totals</u> | <u>Obligations</u> incurred FY69-70 | <u>Cumulative</u> <u>totals</u> | <u>Revised</u> obligation <u>projections</u> | <u>Cumulative</u> <u>totals</u> |
|----------------|--|------------------------------------|---|------------------------------------|--|------------------------------------|
| Fiscal Year 69 | 650,000 | 650,000 | 450,513 | 450,513 | 450,000 | 450,000 |
| Fiscal Year 70 | 500,000 | 1,150,000 | 575,597 | 1,026,110 | 576,000 | 1,026,000 |
| Fiscal Year 71 | 450,000 | 1,600,000 | | -- | 550,000 | 1,576,000 |
| Fiscal Year 72 | 400,000 | 2,000,000 | | -- | 460,000 | 2,036,000 |
| Fiscal Year 73 | 400,000 | 2,400,000 | | -- | 364,000 | 2,400,000 |
| | 2,400,000 | -- | -- | -- | 2,400,000 | -- |

CAROLINA POPULATION CENTER

KEY TO POPULATION PROGRAM ACTIVITIES

| University departmental disciplines and other programs involved | General problem areas | | | | | | | Geographic studies and services | | | | | STUDENTS specializing in population field | FACULTY involvement (whole or partial) | |
|---|--------------------------------|------------------------|----------------------|-------------------------------|-------------------|-----------------------------|-----------------------------|---------------------------------|----------------|-------|----------|--------------|---|--|-------------------------|
| | Reproduction and contraception | Population measurement | Demographic analysis | Policy development and ethics | Population theory | Action program organization | Education and communication | Family life and sex education | North Carolina | India | Thailand | UAR and Iran | | | Chile and Latin America |
| | | | | | | | | | | | | | | | |
| Anatomy | x | | | | | | | | | | | | | - | 2 |
| Anthropology | | | | x | x | x | | | x | x | | x | | 9 | 4 |
| Biostatistics | | x | x | | x | x | | | x | x | x | x | x | 16 | 9 |
| Business Administration | | | | x | x | x | | | | | | | x | - | 3 |
| Ecology, Zoology, Botany | x | | x | | x | | | | x | | | | | 8 | 4 |
| Economics | | | x | | | | | | x | | x | | | 1 | 3 |
| Education | | | | | | | x | x | x | | | | | 1 | 2 |
| Epidemiology | | | x | | x | x | | | x | x | x | x | x | 3 | 7 |
| Genetics program | | | x | | x | | | | x | x | | | | - | 3 |
| Geography | | | | | | | | | x | | | | | 4 | 1 |
| Health Administration | | | | x | x | x | x | x | x | x | x | x | x | 15 | 10 |
| Health Education | | | | | | x | x | x | x | x | x | | | 6 | 3 |
| Library & Information Sciences | | | | | | | x | | x | | | | | - | 2 |
| Maternal and Child Health | x | x | x | x | | x | | x | x | x | x | x | | 5 | 8 |
| Mental Health | | | | | | x | | x | x | x | x | | | - | 3 |
| Obstetrics and Gynecology | x | | | x | x | x | | x | x | x | | x | x | - | 4 |
| Pediatrics | x | | | | | | | | | | | | | - | 2 |
| Pharmacology, Biochemistry | x | | | | | | | | | | | | | - | 4 |
| Philosophy | | | | x | | | | | | | | | | - | 1 |
| Political Science | | | | x | | | | | | | | | x | 8 | 3 |
| Psychiatry | x | | | | | | x | x | | | x | | | - | 2 |
| Psychology | | | | | x | | x | | x | x | | | | 3 | 3 |
| Radio, TV and Motion Pictures | | | | | | x | x | x | x | x | x | | | - | 3 |
| Religion | | | | x | x | | | | x | x | x | x | | - | 2 |
| Social Work | | | | x | | x | | | x | | | | | - | 2 |
| Sociology | | x | x | | x | | | x | x | x | x | x | x | 15 | 7 |
| Urban, Reg. Plan.; Env. Sci. | | | | | x | | | | x | | | | x | - | 3 |
| Duke University | x | | x | x | x | | | | x | x | | | x | 10 | 5 |
| N. C. State University | x | | | x | | | | | x | | | x | x | - | 3 |
| Research Triangle Institute | x | x | x | | | x | | | | x | x | | | - | 6 |

Totals: 104 111

(As of July 1, 1970)

THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL

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966-2155 & 966-2156

SUGGESTED OBJECTIVES
FOR STUDENTS SPECIALIZING IN
POPULATION STUDIES

Fall & Spring: 1969-70

ANTHROPOLOGY

- Anth 120 Culture Change and Underdeveloped Areas (3) Fall. Hafer.
Anth 167 Urban Anthropology (3) Spring. Gulick
Anth 170 Medicine and Anthropology (3) Spring. Leighton.
Anth 172 Applied Anthropology (Family Planning) (3) Fall. Polgar.
Anth 224 Seminar on Cross Cultural Research (3) Spring. Daniels.
Anth 230 Culture Contacts and Acculturation (3) Fall. McEvoy.
Anth 250 Seminar on Medical Anthropology (3) Spring. Staff.
Anth 255 Seminar in Cultural Ecology and Population (3) Spring. Polgar.

BIOSTATISTICS

- Bios 100 Public Health Statistics (3) Fall. Greenberg, Smith, Abernathy.
Bios 120 Survey of Population (2) Spring. Coulter.
Bios 164 Sample Survey Methodology (3) Spring. Koch.
Bios 170 Survey of Population (2) Spring. Wells.
Bios 220 Demographic Techniques (Sociology 197) (3) Fall. Abernathy.
Bios 221 Role of Health Statistics in Administration (2) Spring. Greenberg.
Bios 222 Statistics in Population Programs (2) Spring. Wells and Linder.

Courses

BIOSTATISTICS (cont'd)

- Bios 224 Sample Survey Theory (3) Spring.
- Bios 271 Demographic Techniques II (3) (Prerequisite: Bios 270) Spring.
Sheps, Wells.
- Bios 274 Seminar in Population Statistics (3) (Prerequisite: permission of
instructor) Spring. Sheps, Wells.
- Bios 275 Statistics in Population Programs (2) (Prerequisite: permission of
instructor) Spring. Wells, Linder.

BUSINESS ADMINISTRATION

- Busi 192 Introduction to Management Information Systems (3) Spring.
DesJardins.
- Busi 197 Fundamentals of Managerial Organization (3) Fall and Spring.
- Busi 208 Simulation Theory (3) (Prerequisite: permission of instructor)
Fall. DesJardins.
- Busi 352 Interpersonal and Intergroup Behavior in Business Organizations (3)
Spring. Adams.
- Busi 354 Organizational Design and Development (3) Spring. Bell.

CITY AND REGIONAL PLANNING

- Plan 106 Introduction to Urbanism and Planning (3) Fall. Chapin, Gakenheimer.
- Plan 174 Urban Economics (3) Spring. Knox. (Econ 122)
- Plan 178 Regional Science Technique (3) Spring. Richter. (Econ 121)
- Plan 215 Theory of Planning I (3) Fall. Brooks.
- Plan 223 Planning Problems (3) Spring. Staff.
- Plan 227 Urbanism Seminar (3) Fall. Chapin.
- Plan 241 Environmental Planning (3) Spring. Hufschmidt.
- Plan 247 Housing Market Dynamics (3) Spring. Stegman.
- Plan 265 Social Policy (3) Spring. Brooks.
- Plan 311 (Section 3) Planning for Social Structural Change (3) Spring. Mayer.

DUKE UNIVERSITY COURSESEconomics

- Econ 203 Non-Western Urbanization (3) Fall.
- Econ 317 Seminar in Demographic, Population and Resource Problems (3) Fall.
Spengler.
- Econ 319 Seminar in Theory and Problems of Economic Growth and Change (3)
Fall.

Sociology

- Soci 243 Population Dynamics and Social Change (3) Fall. Hartford.
- Soci 301A Seminar in Human Fertility. (3) Spring. Hartford.
- Soci 302 Migration Seminar (tentative title - course in development process)
- Soci 398 Demographic Techniques (3) Spring. Hartford.

Political Science

- Poli 279 Comparative Political Analysis and Political Development (3) Fall.
Braibanti.

History

- Hist 397 Demographic Techniques (3) Fall and Spring.

ENVIRONMENTAL SCIENCES AND ENGINEERING

- Envr 101 Elements of Environmental Hygiene (2) Spring and Summer. Chanlett,
Weidenkopf and staff.
- Envr 111 Man and His Environment (3) Spring and Summer. Shiffman.
- Envr 212 Planning and Development of Environmental Hygiene Programs (3)
Spring. Shiffman. (Prerequisite: Envr 111 or permission of instructor).
- Envr 217 Systems Analysis in Environmental Planning (3) Fall. Sherwani.
- Envr 226 Ecological and General Systems Theory (3) (Zool 226) Spring. Odum.

Courses

4.

EPIDEMIOLGY

- Epid 161 Epidemiology in Population Dynamics and Family Planning (3) Fall. Omran. (This course will fulfill core requirement of the School of Public Health - those taking it do not have to take Epid. 160).
- Epid 260 Epidemiological Foundations for Disease Control Programs (3) Spring. Cassel, Staff.
- Epid 262 Epidemiology of Program Acceptance (2) Spring. Wilson, Jenkins.
- Epid 264 Culture and Health (3) Spring.
- Epid 266 Epidemiological Investigation (3) Spring. Tyroler.

GEOGRAPHY

- Geog 132 World Agricultural Patterns (3) Spring. Hawley.
- Geog 150 Population Geography (3) Spring. Florin.
- Geog 151 Urban Geography (3) Fall. Browning.
- Geog 152 Economic Geography (3) Fall. Moriarity.
- Geog 153 Political Geography (3) Fall and Spring. Eyre.
- Geog 156 Geography of Natural Resources (3) Fall. Smith.

HEALTH ADMINISTRATION

- HADM 100 Health Services Administration (3) Fall. Gentry and Staff.
- HADM 101 Public Administration and Health (3) Fall. Schaefer.
- HADM 140 Problems in Health Administration (Family Planning) (1 or more).
141 Fall and Spring. Staff.
142
- HADM 200-201 Principles and Practice of Health Administration (2) Spring. Schaefer and Staff.
- HADM 206 Field Work (8 to 16) Summer.
- HADM 260 Family Planning Program Development (3) Spring. Freymann, Jain.

HEALTH EDUCATION

- HEED 110 Introduction to Community Development (3) Fall. McMahan.

Courses

5.

- HEED 130 Introduction to Communication and Group Dynamics (3) Fall and Spring. Mathews. (Special prerequisite for MENH 257).
- HEED 205 Principles of Health Education (2) Spring and Summer. Staff.
- HEED 206 Education and Social Change in Population Planning (2) Spring. Mathews.

JOURNALISM

- Jour 146 International Communication and Comparative Journalism (Poli Sci 146) (3) Fall. Bishop.
- Jour 151 Introduction to Mass Communication Research (RTVMP 151) (3) Fall and Spring. McCombs
- Jour 165 Communication and Opinion (3) Spring. Brown.
- Jour 251 Media Research Methods (3) Spring. McCombs.
- Jour 346 Seminar in International Communication(Poli Sci 346) (3) Spring. Bishop.

MATERNAL AND CHILD HEALTH

- MHCH 103 Reproductive Physiology and Conception Control (2) Fall. Hulka
- MHCH 200 Introduction to Maternal and Child Health I (2) Fall and Spring. Chipman, Peters, Siegel.
- MHCH 201 Introduction to Maternal and Child Health II (2) Spring. Stocking, Edmands. (for students with medical and nursing backgrounds).
- MHCH 212 Social Problems and Services for Children and Their Families (2) Spring. Gourley, Udry.

MENTAL HEALTH

- MENH 130 Assessment of Individual and Community Mental Health (3) Spring. Leighton, Edgerton.
- MENH 135 Human Behavior (2) Spring and Summer. Filley.
- MENH 210 Foundations for Mental Health Practice (2) Fall and Spring. Cline.
- MENH 230 Evaluation of Mental Health Programs (Bios 230) (3) Spring. Brogan and Wilson.
- MENH 257 Cross Cultural Consultation (3) Spring. Lynton. (Prerequisite: HEED 130 or equivalent; permission of instructor).

POLITICAL SCIENCE

- Poli 210 The Public Administrator in Contemporary Society (3) Fall.
Cleaveland.
- Poli 211 Administrative Theory (3) Spring. Cleaveland.
- Poli 212 Public Administration and Policy Making (3) Spring. Cleaveland.
- Poli 220 Politics of Development and Change (3) Spring. Levine.
- Poli 330 Seminar in Development Administration (3) Spring. Daland.

PSYCHOLOGY

- Psych 133 Introduction to Social Psychology (3) Fall. Thibaut, Strocbe, Schopler.
- *****
Psychological Considerations in Population Planning (3) Spring.
Thompson. (Tentative title - course in development process.)

PUBLIC HEALTH

- PUBH 100 Ecology of Human Health (3) Fall. Leighton, Shiffman, Spruyt.
(Prerequisite: permission of instructor - except for School of
Public Health students).
- PUBH 101 Seminar in Population and Family Planning (1) Fall. Interdisciplinary
seminar designed especially for population students.

RADIO, TELEVISION AND MOTION PICTURES

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

RELIGION

- Reli 91 Christian Ethics and Modern Problems (Population) (3) Spring. Allen.
- Reli 140 Comparative Religion, Public Policy and Population Control (3)
Spring. Nash.

SOCIOLOGY

- Soci 54 Population Problems (3) Spring. Van Valey.
- Soci 168 The City and Urbanization (3) Fall and Spring. Smith, Goldschmidt.
- Soci 175 Theories and Problems of Developing Societies (3) Fall. Landsberger.

THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL

CAROLINA POPULATION CENTER
UNIVERSITY SQUARE
CHAPEL HILL, NORTH CAROLINA 27514

TELEPHONE: (919) 966-2157
CABLE: POPCENTER, CHAPEL HILL, N. C.

March 1970

Training Office
966-2155 & 966-2156

POPULATION STUDENTS: 1969-1970

| <u>DEPARTMENT</u> | <u>STUDENT</u> | <u>COUNTRY</u> |
|------------------------------|------------------------|----------------|
| <u>Anthropology</u> (10) | Axelrod, Paul | United States |
| 8 - United States | Bond, James T. | United States |
| 1 - United Kingdom | Brooks, Jane T. | United States |
| 1 - India | Gamble, George R. | United States |
| | Grossmith, Christopher | United Kingdom |
| | Hebert, Mayling | United States |
| | Lowenbach, Trude S. | United States |
| | Manning, Frank E. | United States |
| | Rakshit, Sipra | India |
| | Riley, James | United States |
| <u>Economics</u> (1) | Mooney, Peter J. | United States |
| <u>Education</u> (1) | Frothingham, Nathaniel | United States |
| <u>Geography</u> (4) | Benz, Charity I. | United States |
| 4 - United States | Enberg, Dennis | United States |
| | Jones, Mary S. | United States |
| | Rengert, George S. | United States |
| <u>Political Science</u> (8) | Bergman, Elihu | United States |
| 5 - United States | Clinton, Richard | United States |
| 1 - U.A.R. | Khattab, Moushira | U.A.R. |
| 1 - Nepal | Robinson, Nan T. | United States |
| 1 - United Kingdom | Sainju, Mohan Man | Nepal |
| | Vezner, Karl | United States |
| | deVoursney, Mair J. | United Kingdom |
| | Wright, Gerald | United States |
| <u>Psychology</u> (3) | Kothandapani, V. | India |
| | Rall, Marilyn L. | United States |
| | Shaud, Karen F. | United States |

Population Students: 1969-1970

2.

| <u>DEPARTMENT</u> | <u>STUDENT</u> | <u>COUNTRY</u> |
|---------------------------|-----------------------|----------------|
| <u>Sociology</u> (15) | Aldige, Virginia | United States |
| 10 - United States | Flynn, Cynthia J. | United States |
| 2 - India | Frisbie, W. Parker | United States |
| 1 - U.A.R. | Godley, Carol J. | United States |
| 1 - China | Kasarda, John D. | United States |
| 1 - United Kingdom | Khalifa, Atef M. | U.A.R. |
| | Kukuk, Cris R. | United States |
| | Lalu, N.M. | India |
| | Lee, Che-Fu | China |
| | Long, John F. | United States |
| | Massengill, Karen L. | United States |
| | Millen, James S. | United Kingdom |
| | Packtor, Daniel | United States |
| | Sastry, R.R. | India |
| | Van Valey, Thomas | United States |
| <u>Zoology</u> (8) | Burns, Lawrence | United States |
| 8 - United States | Gaud, William S. | United States |
| | Hunter, James T. | United States |
| | Kelly, Robert | United States |
| | Outen, Ronald | United States |
| | Roberts, Martha | United States |
| | Smythe, Robert B. | United States |
| | Swain, Jean | United States |
| <u>Biostatistics</u> (18) | El Khorazaty, Mohamed | U.A.R. |
| 6 - United States | Fergany, Nader A. | U.A.R. |
| 5 - U.A.R. | Folsom, Ralph E. | United States |
| 1 - Colombia | Gil, Angelina | Colombia |
| 4 - India | Gunasekaran, Sabbiah | India |
| 1 - Vietnam | House, Dennis E. | United States |
| 1 - Korea | Hunter, Judith T. | United States |
| | Mustafa, Ahmed | U.A.R. |
| | Nour, El-Sayed | U.A.R. |
| | Nu, Liet Vo | Vietnam |
| | Park, Dai Kyoan | Korea |
| | Salama, Ibrahim A. | U.A.R. |
| | Sarma, R.S.S. | India |
| | Schonfeld, Warren | United States |
| | Sehgal, Jag M. | India |
| | Suchindran, C.M. | India |
| | White, Billy G. | United States |
| | Young, John | United States |
| <u>Epidemiology</u> (3) | Fetouh, S.A. | U.A.R. |
| | Hogue, Carol J. | United States |
| | Nadim, Abolhassan | Iran |

| <u>DEPARTMENT</u> | <u>STUDENT</u> | <u>COUNTRY</u> |
|--|-------------------------|----------------|
| <u>Health Administration</u> (15) | Altman, Diana L. | United States |
| 9 - United States | Burgess, Paul | Ireland |
| 1 - Ireland | Chang, Kung-Kong | China |
| 1 - China | Khan, Jahangir | Pakistan |
| 1 - India | Harvey, Philip | United States |
| 1 - Pakistan | Macey, Anne M. | United States |
| 1 - Iran | Measham, Anthony | Canada |
| 1 - Canada | Merrill, Henry D. | United States |
| | Montague, Joel | United States |
| | Pisharoti, K.A. | India |
| | Russell, Jerry M. | United States |
| | Singerman, Leonard | United States |
| | Stathes, George | United States |
| | Trainer, Edward S. | United States |
| | Ziai, Lotfollah | Iran |
| <u>Health Education</u> (6) | Kanaka-Devi, M. | India |
| 3 - United States | Kozlowski, Carol | United States |
| 1 - India | Matthis, E.Jane | United States |
| 1 - Korea | Tragoolvongse, Boonglum | Thailand |
| 1 - Thailand | Upton, Donna | United States |
| | Yun, Sung Hee | Korea |
| <u>Maternal & Child Health</u> (7) | Abruquah, S.K. | Ghana |
| 2 - United States | Ajomo, Samuel | Nigeria |
| 1 - United Kingdom | Andrews, Norma | Trinidad |
| 1 - Ghana | Berry, Sandra L. | United States |
| 1 - Trinidad | Black, Timothy | United Kingdom |
| 1 - Philippines | Feliciano, Aurora | Philippines |
| 1 - Nigeria | Knauff, Lynn | United States |

DISTRIBUTION OF STUDENTS BY COUNTRY

| | |
|----------------------|----------|
| Canada | 1 |
| China | 2 |
| Colombia | 1 |
| Ghana | 1 |
| India | 10 |
| Iran | 2 |
| Ireland | 1 |
| Korea | 2 |
| Nepal | 1 |
| Nigeria | 1 |
| Pakistan | 1 |
| Philippines | 1 |
| Thailand | 1 |
| Trinidad | 1 |
| United Arab Republic | 8 |
| United Kingdom | 4 |
| United States | 60 |
| Vietnam | <u>1</u> |

SHORT-TERM TRAINEES AND VISITORS

July 1969

- Dr. (Miss) Qamar Jahan Begum Khan, Medical Officer
Central Evaluation Unit, Lahore, Pakistan
- Dr. Muhammed Taifur Rahman Chaudhury, Principal
Training cum Research Institute, Family Planning
Chittagong, Pakistan
- Mr. William McIntyre, Assistant Program Officer
U.S. Agency for International Development, New Delhi, India
- Mr. B.P. Patel, Secretary
Department of Health & Family Planning, Government of India,
Nirman Bhawan, New Delhi, India
- Dr. Abdon Sallam, Minister of Health
United Arab Republic, Cairo, U.A.R.
- Dr. David Burlison
Center for Studies in Education & Development, Graduate School of
Education, Harvard University, Cambridge, Massachusetts

August 1969

- Miss Swarn Lata Arora, Nurse Consultant & Administrator for Family Planning
Training, U.S. Agency for International Development, New Delhi, India
- Dr. Wasfia Kamel, Chairman
Department of Public Health, Faculty of Medicine, Alexandria University,
Alexandria, United Arab Republic
- Mr. Glen Urban
Massachusetts Institute of Technology, Cambridge, Massachusetts
- Dr. John K. Friesen, Representative
The Population Council, Tehran, Iran
- Dr. Sheldon J. Segal, Director
Bio-Medical Division, The Population Council, Rockefeller University,
New York, New York
- Dr. Horace Dodge, Professor of Epidemiology
School of Public Health, University of Michigan, Ann Arbor, Michigan
- Dr. David Heer, Associate Professor of Demography
Department of Demography & Human Ecology, School of Public Health,
Harvard University, Cambridge, Massachusetts

- Dr. John F. Kantner, Professor of Population & Family Health
School of Hygiene and Public Health, Johns Hopkins University,
Baltimore, Maryland
- Dr. Moni Nag, Associate Professor of Anthropology
Columbia University, New York, New York
- Dr. Mildred Stahlman, Associate Professor of Pediatrics
School of Medicine, Vanderbilt University, Nashville, Tennessee
- Dr. Bengt S. Liljeroot, Training Officer & Executive Secretary
Reproduction and Perinatal Biology Review Committee, National
Institute of Child Health & Human Development, National Institutes
of Health, Bethesda, Maryland
- Dr. Sidney H. Newman, Behavioral Scientist Administrator
Reproduction & Population Research Branch, National Institute
of Child Health and Human Development, National Institutes of Health,
Bethesda, Maryland
- Dr. Sylvan Kaplan
Program Liaison Branch, Center for Population Research,
National Institute of Child Health & Human Development, National
Institutes of Health, Bethesda, Maryland

September 1969

- Dr. Dora Tiglao
Institute of Hygiene, University of the Philippines, Manila, Philippines
- Miss Lorraine Lecompte, Public Health Nurse
World Health Organization, Dakar, Senegal

October 1969

- Dr. N.P. Sen, Director
Administrative Staff College, Hyderabad, India
- Dr. Robert Shaw, Associate Fellow
Overseas Development Council, Washington, D.C.
- Dr. A. George, Professor and Head
Department of Statistics, University of Kerala, Kariavattom,
Trivandrum, India
- Dr. Ozzie Simmons, Program Advisor
The Ford Foundation, Santiago, Chile

VISITORS (continued)

3.

- Dr. George C. Denniston, Vice President
Population Dynamics, Seattle, Washington
- Dr. Murray Gendall, Associate Professor of Sociology
Center for Population Research, Georgetown University,
Washington, D.C.
- Dr. T. Paul Schultz
Economics Department, The Rand Corporation, Santa Monica,
California
- Dr. M. Thangavelu, Principal
Medical College, University of Kerala, Trivandrum, India
- Dr. Elton Kessel, President
Pathfinder Fund, Boston, Massachusetts
- Mr. Philander P. Claxton, Jr., Special Assistant for Population Matters
Department of State, Washington, D.C.
- Mr. Bengt Janzon, Director of Information
Swedish National Board of Health & Welfare, Stockholm, Sweden
- Dr. Harald A. Frederiksen, Chief
Analysis & Evaluation Division, Office of Population, Technical
Assistance Bureau, U.S. Agency for International Development,
Washington, D.C.

November 1969

- Dr. William V. D'Antonio, Chairman
Department of Sociology and Anthropology, University of Notre Dame,
Notre Dame, Indiana
- Dr. Clifford A. Pease, Jr., Associate Director
Technical Assistance Division, The Population Council, New York, N.Y.
- Mr. Jorgen R. Jenk, Vice Chairman
Georg Jensen, Inc., New York, New York
- Dr. Antonio Hernandez Torres, Associate Professor
Department of Obstetrics and Gynecology, University of Puerto Rico,
San Juan, Puerto Rico
- Dr. Craig Lichtenwalner, Dean
Faculties of Medical Sciences, American University of Beirut,
Beirut, Lebanon
- Dr. Elton Kessel, President
Pathfinder Fund, Boston, Massachusetts

VISITORS (continued)

4.

Miss Martha T. Henderson, Senior Associate (Education)
The Conservation Foundation, Washington, D.C.

Dr. Myron Weiner, Professor
Department of Political Science, Massachusetts Institute of
Technology, Cambridge, Massachusetts

Mr. T.E. Smith, Director
Institute of Commonwealth Studies, University of London, and
Visiting Professor of Population Studies, University of Pennsylvania,
Philadelphia, Pennsylvania

Mrs. Katherine Oettinger, Conference Coordinator
Council on Social Work Education, New York, New York

Dr. William K. Archer, Director
Tehran Research Unit, Bahaaristan, Tehran, Iran

Dr. Sheldon Segal, Director
Bio-Medical Division, The Population Council, Rockefeller University,
New York, New York

Mr. Edwin Berrios, Audiovisual Coordinator
Pan American Federation of Associations of Medical Schools,
Bogota, Colombia

Mr. B.M. Singhi, Vice President
Family Planning Association of India, Bombay, India

December 1969

Dr. Edward Pohlman, Professor
Department of Educational & Counseling Psychology, School of Education,
University of the Pacific, Stockton, California

Dr. Christian Bellardi, Fellow in Community Pediatrics
Department of Pediatrics, San Francisco Medical Center, University
of California, San Francisco, California

Mr. John Marshall, Graduate Student
Department of Anthropology, University of Hawaii, Honolulu, Hawaii

The Rev. Mr. Charles Ausherman, Director
Planned Parenthood Program, Church World Service, New York, N.Y.

The Rev. Mr. Rodney Shaw, Director
Department of Population Problems, Board of Christian Social Concerns,
The United Methodist Church, Washington, D.C.

VISITORS (continued)

5.

- Mrs. Joyce Skinner, Consultant
Family Planning Office, Office of Health Affairs, Community
Action Program, Office of Economic Opportunity, Washington, D.C.
- Dr. Samuel Wishik, Director
Division for Program Development & Evaluation, International
Institute for the Study of Human Reproduction, College of
Physicians and Surgeons, Columbia University, New York, New York
- Dr. Tran-Dinh-De, Medical Officer
World Health Organization, Youande, Cameroun
Former Advisor in Medical Education to the Government of Cameroun
- Dr. Bernard Berelson, President
The Population Council, New York, New York
- Dr. Phillips Cutright, Senior Research Associate
Joint Center for Urban Studies, Massachusetts Institute of Technology
and Harvard University, Cambridge, Massachusetts
- Mr. Charles H. Howard, Executive Director
Virginia League for Planned Parenthood, Richmond, Virginia

January 1970

- Dr. Elton Kessel, Visiting Professor of Population Studies
Carolina Population Center, University of North Carolina,
Chapel Hill, North Carolina
- Dr. David T. Allen, Family Planning Consultant
Maternal Health Services, Georgia State Department of Public
Health, Atlanta, Georgia
- Mr. Jorgen R. Jenk, Research Associate
Carolina Population Center, University of North Carolina,
Chapel Hill, North Carolina
- Dr. George Contis, Deputy Associate Director for Family Planning
Health Services Office, Community Action Program, Office of
Economic Opportunity, Executive Office of the President,
Washington, D.C.
- Mr. Richard A. Fehnel, Senior Staff
International Programs, Institute of Public Administration,
Washington, D.C.
- Mr. Eldon E. Sweezy, Executive Director
Management Counsel, Bethesda, Maryland

VISITORS (continued)

6.

- Dr. Alex Graham, Chief
Population and Family Planning Education Unit, Department of
Schools and Higher Education, UNESCO, Paris, France
- Dr. Wade Self, Associate Director of Clinical Studies
Medical Affairs Department, G.D. Searle Company, Chicago, Illinois
- Dr. John B. Wyon
Center for Population Studies and Department of Demography
& Human Ecology, School of Public Health, Harvard University,
Cambridge, Massachusetts
- Six students from Oberlin College: Miss Lisa Block, Mr. Seth Eaton,
Mr. John Laster, Mr. Brian Price,
Mr. Edward Rapoport, Mr. Joseph Rouse

February 1970

- Mr. Jagnandan Manjul, Graduate Student
Department of Health Science, San Fernando Valley State College,
Northridge, California (on leave from Central Bureau of Health
Education, New Delhi)
- Dr. Shirley Witt, Former Regional Director
National Study of American Indian Education, Albuquerque, New Mexico
- Lt. Col. Forrest G. Tompkins (Prospective Student)
Surgeon General Corps., McDonald Army Hospital, Ft. Eustis, Virginia
- Dr. Stephen Viederman
Demographic Division (Population Education), The Population Council,
New York, New York
- Mr. Jules Rodman, Development Officer
Planned Parenthood-World Population, New York, New York
- The Rev. Mr. Brian Greene, Jr. (Prospective Student)
Trinity United Methodist Church, Bristol, Virginia
- Mr. Theodore Nelson (Prospective Student)
Foreign Service Officer, Department of State, Washington, D.C.
- Dr. and Mrs. H. David Hibbard (Prospective Students)
56 Francisco Avenue, West Caldwell, New Jersey
- Mr. Joseph Colosi, Graduate Student
Department of Economics, University of Wisconsin, Madison, Wisconsin

March 1970

- Dr. Thomas Moulding, Staff Physician
National Jewish Hospital & Research Center, Denver, Colorado
- Dr. Alvin S. Lackey, Deputy Chief
Manpower Division, Office of Population, Technical Assistance
Bureau, U.S. Agency for International Development, Washington, D.C.
- Dr. Howard Emery, Staff Physician
Peace Corps, Bangkok, Thailand
- Mr. William A. Van Wie, II (Prospective Student)
47 University Court, Eggertsville, New York
- Dr. James Lee Goddard, Representative
The Ford Foundation, 55 Lodi Estate, New Delhi, India
- Dr. Garrett Hardin, Professor of Human Ecology
Department of Biological Sciences, University of California,
Santa Barbara, California
- Mr. Jorgen R. Jenk, Senior Research Associate
Carolina Population Center, University of North Carolina,
Chapel Hill, North Carolina
- Dr. Rene Dubos, Professor of Biology
Rockefeller University, New York, New York
- Dr. Kenneth Boulding, Professor of Economics
University of Colorado, Boulder, Colorado
- Dr. Ansley Coale, Director
Office of Population Research, Princeton University,
Princeton, New Jersey
- Dr. Harriet H. Werley, Director
Center for Nursing Research, Wayne State University,
Detroit, Michigan
- Dr. Mohammed Motameni, Director General
Farah Maternity Hospital, Tehran, Iran
- Mr. Carl Flemister, Executive Director
Planned Parenthood of New York City, Inc., New York, New York

April 1970

- Mr. Samuel B. Hopkins, Graduate Student
Department of Population, School of Hygiene and Public Health,
Johns Hopkins University, Baltimore, Maryland
- Dr. Roger Revelle, Director
Center for Population Studies, Harvard University, Cambridge,
Massachusetts.
- Dr. M. Thangavelu, Principal
Medical College, University of Kerala, Trivandrum, India
- Dr. Antonio Medina, Associate Professor of Maternal & Child Health
Department of Preventive Medicine and Public Health, University
Of Puerto Rico, San Juan, Puerto Rico
- Col. Dipak Bhatia, Advisor in Family Planning
The Ford Foundation, New Delhi, India
- Dr. C. Chandrasekaran, Regional Advisor on Population Policies & Programme
Population Division, ECAFE, Bangkok, Thailand
- Sir David Owen, Secretary-General
International Planned Parenthood Federation, London, England
- Dr. William J. Moore, Population Advisor
The Ford Foundation, Mexico D.F.
- Canon David E. Jenkins, Director
Humanum Studies, World Council of Churches, Geneva, Switzerland
- Mr. Milton D. Lieberman, Chief
Manpower Division, Office of Population, Technical Assistance
Bureau, U.S. Agency for International Development, Washington, D.C.
- Dr. D.V.I. Fairweather, Chairman
Department of Obstetrics & Gynecology, University College Hospital,
London, England
- Miss Francine Stein, Director
Para-Professional Training Programs, Planned Parenthood-World
Population, New York, New York
- Dr. Leon Swartzberg, Jr., Assistant Professor
Department of Anthropology, University of Akron, Akron, Ohio
- Dr. Mahmoud Sarram, Director
Population Program, University of Isfahan, Isfahan, Iran

- Dr. Fouad Hefnawi, Professor and Chairman
Department of Obstetrics and Gynecology, Al-Azhar University,
Zamalek, Cairo, United Arab Republic
- Mrs. Phyllis Piotrow
Population Crisis Committee, Washington, D.C.
- Mr. Benjamin Kerner (Prospective Student)
12-A Highland Street, Waltham, Massachusetts
- Dr. Luis Fernando Duque, Chief Assistant
School of Public Health, University of Antioch, Medellin,
Colombia
- Dr. Mahmuda Said, Obstetrician-Gynecologist
Karachi, Pakistan
- Dr. Very Hingorani, Obstetrician-Gynecologist
All India Institute, New Delhi, India
- Dr. Mary Phillipose, Obstetrician-Gynecologist
Bangalore, India
- Dr. Lincoln B. Day, Associate Professor of Public Health & Sociology
Yale University, New Haven, Connecticut

May 1970

- Dr. K.P. Chen, Professor of Public Health and Director
Institute of Public Health, Medical College, National Taiwan
University, Taipei, Taiwan
- Dr. B.L. Maheswari, Professor
Administrative Staff College of India, Bella Vista,
Hyderabad, India
- Dr. J. Mayone Stycos, Director
International Population Program, and Chairman, Department
of Sociology, Cornell University, Ithaca, New York
- Dr. Roger Bernard, Research Director
The Pathfinder Fund, Boston, Massachusetts
- Dr. Frederick S. Jaffe, Director
Center for Family Planning Program Development, Planned
Parenthood-World Population, New York, New York

Dr. Eliza V. Sebastian, Assistant Commissioner of Family Planning
for Maternal and Child Health, World Health Organization, India

Dr. Edwin Driver, Professor of Sociology
University of Massachusetts, Amherst, Massachusetts, and
Staff Member, The Ford Foundation, New York, New York

Dr. Hakan Hellberg
Department of International Health, School of Hygiene and Public
Health, Johns Hopkins University, Baltimore, Maryland (on leave
from position of Associate Director, Christian Medical Commission,
World Council of Churches)

Mr. Jeff Stansbury, Managing Editor of Publications
Population Reference Bureau, 1755 Massachusetts Avenue, N.W.,
Washington, D.C.

Dr. Alda G. Holliday, Family Planning Advisor
U.S. Agency for International Development, Karachi, Pakistan

Dr. V. Ramalingaswami, Director
All India Institute, New Delhi, India, and Visiting Professor,
Department of Nutrition, School of Public Health, Harvard
University, Cambridge, Massachusetts

Lady Rama Rau, Patron
Family Planning Association of India, Bombay, India
(Immediate Past President, International Planned Parenthood
Federation)

Mr. K.C. Rae, Director
Management Systems Corporation, New Delhi, India, and
Visiting Professor of Business Marketing, University of New
Delhi, New Delhi, India

Mr. R.C. Chanda, Deputy Director
Computer Center, Programme Evaluation Organization, Indian
Planning Commission, New Delhi, India

Dr. Lincoln H. Day, Associate Professor of Public Health & Sociology
Yale University, New Haven, Connecticut

Mr. John A. Rogosch, Associate Director for Public Health
Peace Corps, Bangkok, Thailand

June 1970

- Dr. K. Bhasker Rao, Professor and Head
Department of Obstetrics and Gynecology, Madurai Medical
College, Erskine Hospital, Madurai, India
- Mr. Edward Montgomery, Graduate Student
Department of Anthropology, Columbia University, New York, N.Y.
- Dr. Ernest Neal, Population Officer
Africa Regional Desk, U.S. Agency for International Development,
Washington, D.C.
- Dr. Dubravka Stampar, Population Council Fellow
School of Hygiene and Public Health, Johns Hopkins University,
Baltimore, Maryland (on leave from position as Head, Department
of Family Planning, Republic Center for Maternal & Child Welfare,
Zagreb, Yugoslavia)
- Miss D'Etta Barnhardt
WBTB Television, Charlotte, North Carolina
- Dr. Udai Parcek, Professor and Head
Department of Social Sciences, National Institute of Health
Administration and Planning, New Delhi, India
- Dr. Ronald W. O'Connor, Participant
Management Development Program, Sloan School of Management,
Massachusetts Institute of Technology, Cambridge, Massachusetts
- Dr. Ramiro Molina, Population Council Fellow
Department of Population and Family Health, School of Hygiene
and Public Health, Johns Hopkins University, Baltimore, Maryland
(on leave from Department of Obstetrics and Gynecology, Faculty
of Medicine, University of Chile, Santiago)
- Mrs. Malileh Morshed
Bacteriology Laboratory Staff, Ministry of Health, Tehran, Iran
- Dr. Harbans Dhillon, Director
Family Planning and Maternal & Child Health Program, State of
Punjab, India
- Dr. George J. Stein, Acting Chief Malaria Advisor
U.S. Operations Mission, Bangkok, Thailand
- Dr. Lourdes M. Leuterio, Graduate Student
University of Hawaii School of Public Health, Honolulu, Hawaii
(on leave from Population and Family Planning Program, Institute
of Maternal and Child Health, Manila, Philippines)
- Mr. Al Lauderbaugh, Program Administrator
National Center for Family Planning Services, Department of Health,
Education and Welfare, Rockville, Maryland

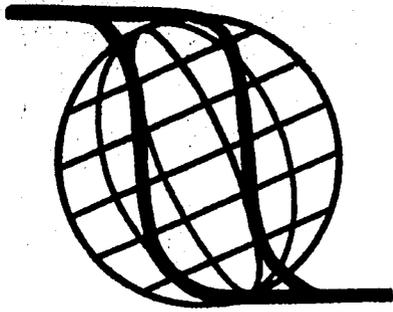
CAROLINA POPULATION CENTER

Foreign Travel - Fiscal Year 1969-70

| | | |
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| Abernathy, James | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and the International Statistical Institute |
| Allen, James | Jan 70 | Puerto Rico: Meeting of the Committee on Family Planning of MCB of the APHA |
| Blake, Robert R. | Oct-Nov 69 | Near East and Africa: Planning for International Workshop on Communication Aspects of Family Planning |
| | March 70 | Tehran, Nairobi & Tunis: Consultations with collaborators for International Workshop on Communication Aspects of Family Planning |
| | May-June 70 | London & Tehran: Participation in International Workshop on Communication Aspects of Family Planning |
| Bond, James | June-July 69 | Virgin Islands: Student field studies, population dynamics |
| Brooks, Jane | June-Sept 69 | Mexico: Student field studies, population dynamics |
| Buckner, Bates | July-Sept 69 | Geneva, Paris, London: Consultation with WHO, OECD, UNESCO, IPPF, and population researchers on library and information retrieval needs |
| Burleson, David | Sept-Oct 69 | Copenhagen: UNESCO meeting on population education |
| | Nov-Dec 69 | L.M.I. Conference on population education |
| | Jan-Feb 70 | Colombia: Consultation on population education |
| | Feb-Mar 70 | Pakistan: Consultation on population education |
| Chandrasekaran, C. | Apr-May 70 | Bangkok-Camp Hill: Visiting Professor in population statistics |
| Chang, K. K. | July-Aug 69 | Far East: Study of administrative aspects of population programs in Korea, Taiwan, Hong Kong, Thailand and India |
| Chu, Kong | July-Aug 69 | Far East: Study of design of population programs and policies in Korea, Taiwan, Hong Kong, Thailand and India |
| Cogswell, Betty | June 69 | Puerto Rico: Conference on family dynamics |
| | Oct 69 | Puerto Rico: Cross-national family study project |
| | Nov 69 | Puerto Rico: Cross-national family study project |
| | April 70 | Puerto Rico: Cross-national family study project |
| | May 70 | Europe, Turkey, Iran, India, Bangkok, Tokyo: Consultation on cross-national family study project |
| Crane, Theodore (U.S. Dept. Agric.) | June 70 | Tehran: Resource advisor for Workshop on Communication Aspects of Family Planning |
| Edmands, Betty | Mar-Apr 70 | Japan, Korea, Taiwan, Bangkok, Delhi, Karachi, Tehran: Analysis of training and roles of nursing personnel in Asian family planning programs |
| Freyman, Moye W. | June-July 69 | India and Iran: Consultation on population program development |
| | March 70 | Geneva and London: Consultation on WHO Expert Committee on Family Planning Administration; and with IPPF Headquarters |

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| Greenberg, Bernard | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and the International Statistical Institute |
| Gulick, John | June-Aug 69 | Geneva & Iran: Consultations with WHO and UNESCO for development of Iran population studies |
| Herbert, Hayling | June-Sept 70 | Ireland: Student field studies, population dynamics |
| Hulka, J. F. | Apr-May 70 | Venice, Italy: Symposium on Reproduction Biology |
| Jain, Sagar | Nov-Jan 70 | India, Thailand & Iran: Exploratory studies on population program administration problems |
| | Jan-Feb 70 | Geneva: Consultant with WHO on family planning administration |
| Jenk, Jorgen | Nov 69 | London and Paris: Consultations with WHO and SIDA |
| | Jan-Mar 70 | Korea, Taiwan, India, London: Consultations with IPPF and FPAT |
| | Apr-May 70 | London and India: Consultations with IPPF and FPAT |
| | June-July 70 | London and India: Consultations with IPPF and FPAT |
| Katz, Michael | Sept 69 | London: Meeting of International Union for the Scientific Study of Population |
| Kessel, Elton | Feb-Mar 70 | Japan, Far East, India: Consultations with IPPF, FPAT, and on family planning program design |
| Linder, Forrest | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and the International Statistical Institute |
| | Sept 69 | Morocco: Negotiations to develop POPLAB project |
| | Oct 69 | Colombia: Discussions of POPLAB project |
| McLaughlin, Curtis | Nov-Dec 69 | Delhi & Tehran: Study and consultation on management aspects of population programs |
| Madigan, Francis | Sept 69 | Philippines and Chapel Hill: Discussions on POPLAB project |
| Mathews, Betty | June-July 69 | India, Iran and Thailand: Consultation on aspects of education and training in family planning programs |
| | Dec-Jan 70 | New Delhi: Consultations on family planning in India |
| Miller, Arden | Aug-Oct 69 | Cairo, Tehran, India, Thailand: Discussions on international institutional development and collaboration in population studies |
| | June 70 | Tehran: International Workshop on Communication Aspects of Family Planning |
| Montague, Joel | May-June 70 | London, Tunis & Algiers: Field studies on population policy as Ford Mid-Career Fellow |
| Namboodiri, K. | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and International Statistical Institute |
| Nash, Arnold | Aug-Sept 69 | London: Meeting of International Union for the Scientific Study of Population |
| Naylor, Thomas | July-Aug 69 | Korea, Taiwan, Hong Kong, Thailand, and India: Study and consultation on population program and policy design |
| Omran, Abdel | Aug-Sept 69 | Geneva, Turkey, Lebanon, Iran: Consultant for WHO on reproduction epidemiology |

| | | |
|-----------------------|-------------|---|
| Omran, Abdel (cont'd) | May-July 70 | Geneva, Turkey, Lebanon, Iran, India: Consultation on reproduction epidemiology studies |
| Omran, Khaira | Jan 70 | Puerto Rico: Research conference on fertility and sterility |
| Rae, K. C. | May 70 | Hamburg-Chapel Hill: Consultation on management aspects of population programs |
| Richardson Russell | July 69 | Colombia: Field studies as Ford Mid-Career fellow |
| Sabagh, George | Sept 69 | Morocco: Discussion on POPLAB project |
| Sen, P. K. | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and the International Statistical Institute |
| Trainer, Edward | July-Aug 69 | Korea, Taiwan, Hong Kong, Thailand, and India: Study and consultation on population program and policy design |
| Udry, Richard | Dec-Jan 70 | Bangkok: Consultation with Population and Social Research Center, Mahidol University |
| Wallace, Wesley | June 70 | Tehran: International Workshop on Communication Aspects of Family Planning |
| Wells, H. B. | Sept 69 | London: Meetings of International Union for the Scientific Study of Population, and the International Statistical Institute |
| | Dec 69 | India: Discussions on fertility research projects |
| Wolfe, Suzanne | May-June 70 | London and Tehran: International Workshop on Communication Aspects of Family Planning |



NEWS of the *Carolina Population Center*

VOLUME 4, NUMBER 1

MAILING ADDRESS: UNIVERSITY SQUARE, CHAPEL HILL, N. C., 27514

SUMMER, 1970

Groves Conference on Marriage and Family

Dr. Marvin B. Sussman, visiting professor at the Carolina Population Center, acted as chairman of the Groves Conference on Marriage and the Family, held late in April at Winston-Salem, N. C. The conference theme was Can We Formulate a Family Policy—for the Community, the State and the Nation?

Dr. Sussman, now on leave of absence from the department of sociology at Case Western Reserve University, delivered a plenary session discussion, "Organization and Ideological Constraints to the Development of a National Family Policy." Other plenary session speakers were Dr. Catherine Chilman, dean of the faculty at Hood College and former chief of the Research Development and Utilization Branch, Social Rehabilitation Services, Department of Health, Education and Welfare, who spoke on "A National Family Policy for the 1970s," and Pierre de Bie of the University of Louvain, Belgium, president of the International Commission for the Scientific Study of the Family, who discussed "Family needs and Family Services: A World Perspective."

"Population Planning and The Family," was the subject of one of the seminars, led by Dr. Moye Freymann, director of the Carolina Population Center. This group explored the present state of scientific knowledge about the family-level benefits to be derived from family and population planning.

Participants who presented papers in this group included: Dr. Lincoln
(Continued on page 4, column 3)

Dr. Abdel Omran Directs Two-Year World Health Organization Study

Epidemiological studies in human reproduction in four Eastern countries—India, Iran, Lebanon and Turkey—will be directed by Dr. Abdel Omran of the Carolina Population Center over the next two years, underwritten by a \$145,000 grant from the World Health Organization's Human Reproduction Unit.

The study, which hopes to better understand the dynamics of human reproduction as related to health factors, will be conducted with the cooperation and shared financial support of the Institute of Rural Health and Family Planning at Gandhigram, India; the School of Public Health and Institute of Public Health at the University of Teheran, Iran; the School of Public Health of the American University of Beirut, Lebanon; and the Hacettepe Institute of Population Studies, Ankara, Turkey.

Two principal studies will be conducted in each country: the relationship of family size to family health, and the effect of childhood mortality on subsequent fertility. In India, there will be three additional studies—one on pregnancy outcome using the immunologic pregnancy test "Pregnosticon"; one on the epidemiology of sterilization, in which, among other things, the possible psychological effects of sterilization will be observed; and one on the dynamics of a declining birth rate, in which a number of Indian communities in Tamil Nadu where the birth rate is falling will be given particular attention.

In each county, at least two subcultures will be observed: Hindu and Muslim in India; Muslim and Christian in Iran and Lebanon; and traditional vs. modern Muslims in Turkey.

(Continued on page 4, column 2)

CPC Member Inaugurates New Program

The first doctoral degree to be awarded in a new program in policy sciences at the State University of New York at Buffalo has gone to Rolf Lynton, associate professor of mental health at the University of North Carolina and an associate of the Carolina Population Center. Lynton is also an adjunct professor in the policy sciences program at Buffalo.

Lynton's doctoral dissertation, *The Consulting Process in New Institutions*, will be published as his

eighth book. The dissertation deals with consultation at overseas developmental institutions, and is based on four years of work done as leader of an interdisciplinary consultant team in Southeast Asia. He has spent a total of eleven years in Asia, helping develop international training for leaders in community and industrial development. He is particularly concerned with helping to strengthen leadership in population program and policy development.

Recent Visitors To Population Center

Colonel Dipak Bhatia
The Ford Foundation
New Delhi, India

Dr. Kenneth Boulding
University of Colorado
Boulder, Colorado

Dr. C. Chandrasekaran
United Nations ECAFE
Bangkok, Thailand

Dr. Ansley Coale
Director
Office of Population Research
Princeton University
Princeton, New Jersey

Dr. Lincoln H. Day
Yale University
New Haven, Connecticut

Dr. Rene Dubos
Rockefeller University
New York, New York

Dr. Luis Fernando Duque
University of Antioch
Medellin, Colombia

Dr. Howard Emery
Peace Corps
Bangkok, Thailand

Dr. D. V. I. Fairweather
University College Hospital
London, England

Mr. Carl Flemister
Executive Director
Planned Parenthood of
New York City
New York, New York

Dr. James Lee Goddard
Ford Foundation
New Delhi, India

Dr. Garrett Hardin
University of California
Santa Barbara, California

Dr. Fouad Hefnawi
Al-Azhar University
Zamalek, Cairo, Egypt

Dr. Vera Hingorani
All India Institute
New Delhi, India

Canon David E. Jenkins
Director, Humanum Studies
World Council of Churches
Geneva, Switzerland

Dr. Alvin S. Lackey
Agency for International Development
Washington, D. C.

Mr. Milton D. Lieberman
Agency for International Development
Washington, D. C.

Mr. Jagnandan Manjul
Central Bureau of Health Education
New Delhi, India

Dr. Antonio Medina
University of Puerto Rico
San Juan, Puerto Rico

Dr. William J. Moore
The Ford Foundation
Mexico

Dr. Mohammed Motameni
Director General
Farah Maternity Hospital
Teheran, Iran

Dr. Thomas Moulding
National Jewish Hospital and
Research Center
Denver, Colorado

Sir David Owen
Secretary-General
International Planned Parenthood
Federation
London, England

Dr. Mary Phillipose
Obstetrician-Gynecologist
Bangalore, India

Mrs. Phyllis Piotrow
Population Crisis Committee
Washington, D. C.

Dr. Roger Revelle
Director
Center for Population Studies
Harvard University
Cambridge, Massachusetts

Mr. Jules Rodman
Planned Parenthood-World Population
515 Madison Avenue
New York, New York

Dr. Mahmuda Said
Obstetrician-Gynecologist
Karachi, Pakistan

Dr. Mahoud Sarram
Director
Population Program
University of Isfahan
Isfahan, Iran

Miss Francine Stein
Planned Parenthood/World Population
New York, New York

Dr. Leon Swartzberg, Jr.
University of Akron
Akron, Ohio

Dr. M. Thangavelu
Medical College
University of Kerala
Trivandrum 11, India

Dr. Stephen Viederman
The Population Council
New York, New York

Dr. Harriet H. Worley
Director
Center for Nursing Research
Wayne State University
Detroit, Michigan

Dr. Shirley Witt
National Study of American
Indian Education
Albuquerque, New Mexico

Training Given to Social and Health Workers

Several hundred social service case workers and public health nurses throughout North Carolina were given in-service training in implementing family planning for recipients of Aid for Dependent Children, through a series of meetings held during the past months.

Meetings were held in Raleigh, Asheboro, Edenton, Greenville and Statesville, planned by state level health and social service agencies. Paul Burgess of the Carolina Population Center acted as consultant at the meetings, and spoke on the history and philosophy of family planning.

The in-service meetings were preceded by six briefing sessions during the fall of 1969, at which county and local officials were informed of the agreement reached between state-level health and social services to provide comprehensive family planning for AFDC recipients. The 1967 amendment to Title IV of the national Social Security Act provided

that the federal government would make available 75% of the funds needed for these programs.

As North Carolina counties have submitted their individual AFDC family planning programs to state agencies, the Carolina Population Center has been in touch with them on a continuing consultant basis. Between November and April, 19 counties had submitted plans.

During April, 15 field representatives and key people from the North Carolina Department of Social Services held a week-long meeting at Quail Roost, to learn about the systems analysis approach to solving their problems.

As a result of the AFDC project, the Department of Social Services has become interested in the design of an evaluation system to monitor the project throughout North Carolina as it gets into full operation. The Carolina Population Center and the Research Triangle Institute may help with the design of the evaluation system.

Consultant Team Providing Community Project Assistance

A consultant team from the Carolina Population Center is providing technical assistance to community family planning projects in the Mid-Atlantic region, under an arrangement supported by the Office of Economic Opportunity.

The team, headed by Dr. Trois Johnson, makes available specialist skills in the areas of program analysis, medical elements, project development and implementation, administrative and fiscal management, community organization, education and training, data collection, and records and reporting systems.

General objectives of consultation are to resolve operational problems, extend and improve project effectiveness, and develop new or expanded programs. The team responds to invitations from local agency directors, which have been forwarded to the OEO Mid-Atlantic regional family planning liaison, Robert Czapiewski.

From February to April, 1970, the team made site visits to these places:

Mountain Maternal Health League, Inc., and Community Action Program in Bell-Whitley Counties, Kentucky; Licking Valley Community Action Program in Flemingsburg, Kentucky; Neighborhood Family Planning Center, Inc., in Baltimore, Maryland; the OEO Committee in Annapolis, Maryland; Family Planning Centers in Lancaster, Pennsylvania; Tri-County Community Action Against Poverty in Charleston, West Virginia; Sandhills Community Action Program, Inc., in Carthage, North Carolina; the Economic Improvement Council, Inc., in Edenton, North Carolina; the Commission on Economic Opportunity, Cumberland, Dauphin and Perry Counties, Steelton, Pennsylvania; the Virginia League for Planned Parenthood, Inc., Richmond, Virginia; and the Office of Economic Opportunity, Atlanta, Georgia.

Sir David Owen Speaks at Center

"The 1960s were characterized by the revolution in attitudes toward the population question; the 1970s, we hope, will be characterized by a revolution in accomplishment," said the late Sir David Owen, secretary-general of International Planned Parenthood Federation, during an April visit to the Carolina Population Center.

"In the last five years," he noted, "many countries have come to recognize the importance of population as a factor in economic and social development. Much of the old resistance from religious quarters and more conservative elements in society have very considerably broken down."

The population problem affects all countries, Sir David believes. "In the more developed countries, it affects the amenities of life—the growth of cities, transportation, pollution. We may not be able to solve many of these problems if population can't be curbed. However, in the developing countries of the world, it is a threat to life itself."

To the question of whether population density will become so great that it is a threat to human existence, Sir

David stated, "I believe that the Malthusian checks will operate. Famine, disease and war will come to the rescue. There is very little question but that we will invent our own cosmic contraceptives."

Sir David was one of the architects of the United Nations and served for many years as co-administrator of the UN's development program. He is presently spearheading discussions on the possibilities of a close working relationship between the IPPF and the United Nations Fund for Population Activities. He also explored possible consultation services from the Carolina Population Center.

Of the organization which he now heads Sir David noted, "One of the greatest advantages of the IPPF is that we are responsive to the local situations of our 65 national associations. In some parts of the world we emphasize family welfare, in other parts, population control. In some places, we provide more rational alternatives to abortion; in other places, we explore new frontiers of contraceptive techniques. Our emphasis varies according to local needs and possibilities."

Research Symposium Held

A symposium for persons in the Research Triangle area who are concerned with population and family planning studies was attended by more than 120 persons on April 23, at the National Center for Health Statistics and the Research Triangle Institute buildings.

The organizing committee consisted of Dr. Joseph Spengler, Duke University; Dr. F. Gordon Heuter, National Air Pollution Control; Dr. Anders Lund, National Center for Health Statistics; Dr. David Gaylor, National Institute for Environmental Health Sciences; Dr. Leonard Robinson, North Carolina Central University; Dr. R. David Mustian, North Carolina State University; Dr. Quentin W. Lindsey and Dr. Michael Rullison, Research Triangle Institute; Dr. Eric Krystall, Shaw University; Dr. William Anthony Gaines, St. August-

ine's College, and Dr. Marvin Sussman, Carolina Population Center.

A background statement noted: "This symposium stems from the fact that a remarkable array of research leading to various facets of population phenomena, broadly defined, is underway in the Triangle area. Moreover, the Carolina Population Center, University of North Carolina, has become a strong catalytic force; the Population Studies Program at Duke University has done considerable pioneering; a World Food and Population Task Group has been meeting regularly weekly for more than a year at North Carolina State University; and recently N. C. State and UNC each held symposiums on man and his environment that received national attention. Closely related programs are being developed at St. Augustine's College, NCCU, and Shaw."

Casebook in Community Health Produced by Center

Family Planning in Tewkesbury County: A Casebook in Community Health has been revised and made available by the Carolina Population Center for use in teaching family planning administrators at Chapel Hill.

This material presents demographic data and descriptions of agency, staff and budget problems encountered in a hypothetical U. S. community, so that students themselves can rehearse problems of population program planning and implementation.

The study was initiated by Dr. Charles B. Arnold, Ann Sauls and Dr. Sylvain Fribourg. Further development and revisions were contributed by a faculty committee.

The case is made up of four sections: Tewkesbury County; An Overview; Public Health and Family Planning; Other Public Agencies Involved; and Case Studies.

A limited number of the 350-page manuscripts, produced by photo offset direct, are available for teaching purposes at a cost of \$10 per copy, from the Carolina Population Center Publications Office, 214 W. Cameron St., Chapel Hill, N. C. 27514.

*Carolina Population Center
University Square
Chapel Hill, N. C. 27514
U.S.A.*

Environment Meeting Emphasizes Population

Strong messages on population were delivered by a group of ten speakers who addressed themselves to the problems of Man and Environment on the UNC campus during March. The symposium was conceived two years ago and organized entirely by student leadership.

Garrett Hardin, professor of human ecology at the University of California, Santa Barbara, discussed raising the status of women in "Need for and Ethics of Population Legislation." Human responsibility for controlling the reproductive process was put forth in "We Are the Environment," by Rene Dubose, professor of microbiology at the Rockefeller University. Ansley Coale, director of the office of

population research at Princeton University, talked on concepts of optimal population in the United States in his "Man and Environment: A Synthesis."

Other speakers were Stewart Udall, former Secretary of the Interior; David Brower, president of Friends of the Earth; George Woodwell, senior ecologist at Brookhaven National Laboratory; Robert Scott, governor of North Carolina; Abel Wolman, professor emeritus of sanitary engineering at Johns Hopkins University; Edmund Muskie, U.S. Senator from Maine; and Kenneth Boulding, professor of economics at the University of Colorado.

Groves Conference

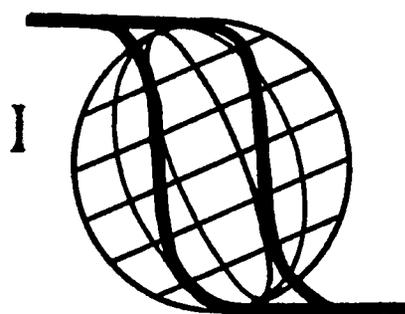
(Continued from page 1)

H. Day, Yale University; Dr. Vaida D. Thompson, University of North Carolina at Chapel Hill; Dr. David M. Heer, Harvard School of Public Health; Dr. Joseph S. Himes, University of North Carolina at Greensboro; Arthur A. Campbell, National Institute of Child Health and Human Development; Michael Katz, Northwestern University; Dr. Harold O. Goodman, Bowman Gray School of Medicine; Arthur H. Jones, North Carolina Legislature; Dr. Earl Siegel, University of North Carolina at Chapel Hill; and Dr. Edwin D. Driver, University of Massachusetts and the Ford Foundation.

Omran—Who Study

(Continued from page 1)

Dr. Omran observes: "It is gratifying that an organization like the World Health Organization has become interested in the problem of population, for it has an international reputation in the healing art, and has an exceptional delivery system throughout the world. The World Health Organization has very successfully worked on problems of malaria and tuberculosis; if problems of excess population growth can receive the same priority, it will be a great gain."



NEWS of the *Carolina Population Center*

VOLUME 3, NUMBER 3

MAILING ADDRESS: UNIVERSITY SQUARE, CHAPEL HILL, N. C., 27514

WINTER, 1970

Arnold Nash Named To National Goals Staff

Dr. Arnold S. Nash, research professor at the Carolina Population Center and professor of history and sociology of religion at the University of North Carolina, has been named to the White House Research Staff on National Goals.

A member of the UNC faculty since 1947, he has been chairman of an interdisciplinary graduate seminar at the Population Center and a member of the Center's Population Study Group. He has taught a course in comparative religion and the population problem.

Dr. Nash will serve as consultant to the humanities for the "small, highly technical staff, made up of experts in the collection, correlation and processing of data relating to social needs, and in the projection of social trends." Nash is especially interested in the ethical and human value aspects of future population policies in the United States.

The staff, established by President Richard Nixon, will operate under the direction of Leonard Garment, special consultant to the President. First assignment of the research group will be to prepare a report "that can help illumine the possible range of national goals for 1976—our 200th anniversary," the President said.

The functions of the National Goals Research Staff, as defined by President Nixon, will include:

—forecasting future developments, and assessing the longer-range consequences of present social trends.

(Continued on page 4, column 2)

Carolina Population Center Contributes To Task Force Report

The Carolina Population Center was specially commissioned by the Presidential Task Force on International Development appointed by President Richard M. Nixon to analyse world population program needs and suggest future U.S. assistance roles.

The President Task Force reported to President Nixon in March, 1970, advising on long-range foreign assistance programs. The Task Force is headed by Rudolph A. Peterson, recent president and chief executive officer of the Bank of America.

The paper submitted in December by the Carolina Population Center was titled "Cracking the World Population Problem: A U.S. Goal for the '70s." It was prepared under the direction of Dr. Moye Freymann, with contributions from the following Carolina Population Center associates: David Burleson, Horace Ham-

ilton, Jaroslav Hulka, Trois Johnson, Forrest Linder, Betty Mathews, Steven Polgar, Joseph Spengler, Marvin Sussman, and Shanti Tangri, assisted by Marie Blaylock. This group represents a century and a half of experience with the population field, nine different professional disciplines, involvement with population activities in many developing countries, and working experience with most U.S. and international agencies concerned with population problems.

Comments and suggestions on the report were provided by members of The Ford Foundation, International Planned Parenthood Federation, National Academy of Sciences, Population Council, Population Crisis Committee, United Nations agencies, U.S. Agency for International Development, and by John Cutler, Jorgen Jenk and Roger Revelle.

Handbook To Include CPC Authors

Five Carolina Population Center contributors will be represented in the forthcoming second edition of *Manual of Contraceptive Practice* edited by Dr. Mary Steichen Calderone, executive editor of Sex Information and Education Council of the United States.

Drs. Moye Freymann and Sagar Jain collaborated on "Teaching Public Health and Family Planning," while Dr. Steven Polgar is senior author, with Dr. Robert A. Hatcher

of Grady Hospital in Atlanta, of "Attitudes in Patients and Personnel."

Miss Betty Edmonds has provided two chapters: "Nursing Education in Family Planning," and "Nursing in Family Planning."

Mrs. Arnold Nash has collaborated with A. E. Keir Nash, assistant professor of political science at the University of California, Santa Barbara, on "The Evolution of Physicians' Attitudes Towards Contraception."

Recent Visitors To Population Center

Dr. David T. Allen
Georgia State Department of Public Health
Atlanta, Georgia

Dr. William K. Archer
Director
Tehran Research Unit
Bahaarestan
Tehran, Iran

The Rev. Mr. Charles Ausherman
Director
Planned Parenthood Program
Church World Service
New York, New York 10027

Dr. Christian Bellardi
San Francisco Medical Center
University of California
San Francisco, California

Dr. Bernard Berelson
President
The Population Council
New York, New York

Mr. Edwin Barrios
Pan American Federation of
Associations of Medical Schools
Bogota, Colombia

Dr. George Contis
Office of Economic Opportunity
Washington, D.C. 20506

Dr. Phillips Cutright
Joint Center for Urban Studies
Cambridge, Massachusetts

Mr. Richard A. Fehnel
Institute of Public Administration
Washington, D.C.

Dr. Alex Graham
UNESCO
Paris, France

Miss Martha T. Henderson
The Conservation Foundation
Washington, D.C. 20036

Mr. Charles H. Howard
Executive Director
Virginia League for Planned Parenthood
Richmond, Virginia 23220

Dean Craig Lichtenwalner
Faculties of Medical Sciences
American University of Beirut
Beirut, Lebanon

Mr. John Marshall
University of Hawaii
Honolulu, Hawaii

Mrs. Katherine Oettinger
Council on Social Work Education
New York, New York 10017

Dr. Edward Pohlman
University of the Pacific
Stockton, California 95204

Dr. Sheldon Segal
The Population Council
New York, New York

Dr. Wade Self
G. D. Scarle Company
Chicago, Illinois 60680

CPC Workshop Attracts Major Planning Agencies

"A Search for Direction" was the title of a symposium on mass communications and family planning programs which attracted thirty representatives of government agencies and volunteer family planning services to the Chapel Hill campus January 19-20 under the sponsorship of the Carolina Population Center.

University faculty members who appeared on the program were Dr. Trois Johnson, who spoke on "Training Materials and Programmed Instruction," and Dr. J. Richard Udry, who discussed "Knowledge, Attitudes and Contraceptive Practice Among U.S. Urban Dwellers."

Other participants included Mrs. Dorothy L. Millstone, associate director, information and education,

Planned Parenthood-World Population; Robert Gillespie, The Population Council; Robert J. Brady, of the Robert J. Brady Company; and William Bert Johnson, Population Service, AID.

Organizations who sent representatives, beyond those appearing on the program, were: Planned Parenthood Program, Church World Service; Family Planning Program, American Friends Service Committee; Population Reference Bureau, Inc.; Center for Population Research, National Institute of Child Health and Human Development; Community Health Service, Department of Health, Education and Welfare; and Family Planning Project, UNC School of Public Health.

Population Topics Figure in Conference

Rising public concern over dangers to man's environment is reflected on college and university campuses throughout the nation this year, and a large number of undergraduate conferences are discussing the problems of population, air and water pollution and general ecology.

Speakers on population problems at a symposium-workshop titled "Man: His Environment, His Future" held on the North Carolina State University campus Feb. 23-25 were Richard Fagley, executive secretary of the

World Council of Churches, who discussed, "The Population Explosion and Christian Responsibility;" Dr. Alan Guttmacher, president of Planned Parenthood-World Population Association, whose topic was "Whose Responsibility is Family Planning?" and Dr. Joseph Spengler of the Population Studies Program at Duke University, who considered, "Population Increase: Economic Consequences and Solutions."

Dr. Guttmacher stated that in
(Continued on page 4, column 2)

The Rev. Mr. Rodney Shaw
Board of Christian Social Concerns
The United Methodist Church
Washington, D.C.

Mr. B. M. Singhi
Vice President
Family Planning Association
of India
Bombay, India

Mrs. Joyce Skinner
Office of Economic Opportunity
Washington, D.C.

Mr. T. E. Smith
Visiting Professor of Population Studies
University of Pennsylvania
Philadelphia, Pennsylvania

Dr. Antonio Hernandez Torres
University of Puerto Rico Medical School
San Juan, Puerto Rico

Dr. Tran-Dinh-De
World Health Organization
Yaounde, Cameroun

Dr. Myron Weiner
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dr. Samuel Wishik
International Institute for the
Study of Human Reproduction
Columbia University
New York, New York

Dr. John B. Wyon
Harvard University
Boston, Massachusetts 02115

Mr. Eldon E. Sweezy
Executive Director
Management Counsel
Bethesda, Maryland 20014

Pop/Psych Studies Projected At UNC

Dr. Vaida Thompson, assistant professor of psychology and research associate at the Carolina Population Center, has accepted the charge of trying to bring psychological theory and research methods into the study of population, and population problems into the psychological research realm.

In stressing the need for working in both directions, she first commented about the effect of an absence of psychologists from population research. "Even a cursory review of population literature," she notes, "reveals that all disciplines seem concerned directly or indirectly with psychological variables such as attitudes, norms, and values, and with the problems of effecting attitude and behavioral change relative to use of contraception, etc. However, with few psychologists directly involved in such research, the theories and methods psychologists use in studying these variables and effecting change have neither been available to nor incorporated by researchers from other disciplines."

"On the other hand," she stated, "psychologists have not seized on population problems as targets of research. In social psychology, in particular, the emphasis on well-designed, well-controlled, well-executed theoretical laboratory research has directed a less practical or applied focus; this focus on laboratory experimental studies with college student subjects appears to suggest to other disciplines that our theory and methods are not relevant to the needed research pursuits in population."

"It would seem," she continued, "that psychologists indeed could focus on the same variables and issues within their laboratory settings as do the more necessarily field-oriented population researchers. This is one way in which we are now proceeding, although admittedly minimally, in our own division. It seems quite likely that dealing with these problems in laboratory research is, for psychologists, a necessary precursor to be-

Two Presidents Join Center Staff

The presidents of two distinguished and internationally-known organizations have recently joined the Carolina Population Center staff.

Dr. Elton Kessel, executive director and president of The Pathfinder Fund of Boston, Mass., has become a visiting professor of population studies, while Jorgen R. Jenk, recent president and vice-chairman of Georg Jensen, Inc., of New York, has become a senior research associate of the Center concerned especially with involvement of private enterprise in the world family planning movement.

The Pathfinder Fund was established in 1957 by the late Clarence J. Gamble, M.D., for the purpose of finding new paths toward solutions to the population problems then beginning to reach mankind's awareness. It now has 246 projects in 90 countries.

He has had public health assignments in Maharashtra State, India, in Oregon, and private practice in the state of Washington, where he also organized medical clinics for the Makah Tribal Council. His duties at the Pathfinder Fund were to administer a worldwide program of contraceptive research and family planning program support, with emphasis on new and innovative family planning services. His work has taken him to 35 nations.

He is the author of *Village Health-*

A Guide for Teachers published in India, and several articles in professional journals.

Jorgen R. Jenk, an international businessman with more than 20 years of experience on four continents, plans to devote his future career to population work. For the past four years he has been an executive of Georg Jensen, Inc., an industry leader of silver, crystal, dinnerware, giftware and home furnishings distributed on a national basis to 4,000 accounts including 600 leading stores.

A true citizen of the world, Jenk was born in Denmark, served more than four years in the Danish Resistance during World War II, has lived in Nigeria, India, Switzerland, England and America.

Twenty years ago in Nigeria, on his first job as a district officer in the British Colonial Administrative Service, Jenk became aware of population problems at the grass roots level.

His knowledge grew during a business career in India.

From 1954 to 1959 he was associated with the overseas operation of Fisons Limited of England, largest of the British fertilizer and pesticides corporations, which operated many international subsidiaries, and then spent a period with Tata Industries Private Limited, India's largest industrial group, in India, Switzerland and the United States.

coming involved in similar methodological and theoretical research within the field setting."

"Simply telling psychologists that they should be involved in research in population will not produce desired results. Further, it is not wise to insist that they come into population research as collaborators in broad-ranging survey-type projects. Rather, if research by psychologists is to be encouraged (as by funding), it may be necessary to accept a progression of involvement—from the controlled laboratory setting to the controlled field experiment."

"Further, I should add that interest in the general area of popula-

tion research should be encouraged early in the career of the experimentally-oriented psychologist. One explanation for the almost complete absence of psychologists in population research may be that students' interest and research foci are not encouraged in the direction of such problems; once trained in more narrowly defined research problems, it would seem even more difficult to engage interest in more broad social problems. Therefore, those interested in involving psychologists in population research might do well to consider education and training stipends for graduate, and even undergraduate students."

Dr. Burleson Attends Royal Wedding

The Carolina Population Center was unofficially represented at the recent wedding of the Crown Prince of Nepal by Dr. Noel-David Burleson, lecturer in anthropology and education.

The wedding of His Royal Highness Crown Prince Birendra Bir Bikram Shah Dev to Her Royal Highness Princess Aishwarya Rajyalaxmi Devi was held from February 27 to March 3 in Katmandu, Nepal.

Two thousand guests took part in the six days of celebration surrounding the wedding at Narayanhiti Royal Palace.

Dr. Burleson became acquainted with the Crown Prince when the latter was a student at Harvard University in Burleson's course on Cultural Constraints in Educational Development. Last November, after Burleson participated in a panel discussion on "Communicating Population Awareness Through the Schools," at the 11th International Congress of the Society for International Development held in New Delhi, he was asked to visit Nepal to discuss development of population education in the Nepalese schools.

The continuing themes of their conversations are the formal and informal educational job to be done in a country like Nepal, the general concept of faith in the transforming powers of education and the qualities of leadership that a modern monarch must possess.

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Nash

(Continued from page 1)

—measuring the probable future impact of alternative courses of action, including measuring the degree to which change in one area would be likely to affect another.

—estimating the actual range of social choice—that is, what alternative sets of goals might be attainable, in light of the availability of resources and possible rates of progress.

—developing and monitoring social indicators that can reflect the present and future quality of American life, and the direction and rate of its change.

—summarizing, integrating and correlating the results of related re-

search activities being carried on within the various Federal agencies, and by State and local governments and private organizations.

Beginning July 4, 1970, the research group will prepare an annual public report setting forth some of the key choices open to the nation, and examining the consequences of those choices.

Nash has been allowed a one-year leave of absence from his teaching responsibilities to participate on the research staff. He will retain his positions with the Carolina Population Center and as chairman of the humanities project for the Regional Education Laboratory for the Carolinas and Virginia.

Population Topics

(Continued from page 1)

America, 17 per cent of births among the non-poor and 40 per cent among the poor are not wanted at the time of conception.

An unprecedented growth in world population, he said, "has introduced a new and urgent element in fertility control. Now it is not only essential for individual welfare but the welfare of all individuals.

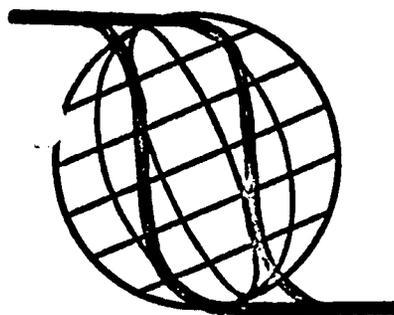
"This new dimension in the control of fertility," he added, "has caused the serious question to arise as to whether or not the control of fertility remains solely the responsibility of the individual or does the state have a responsibility."

Guttmacher told the conference that the task of the first half of this decade "is to make certain that all American women have made available to them on the basis of voluntary choice effective means of contraception."

Concerning the population dilemma, he said that many experts "still hope to solve it through the voluntary cooperation of the world's citizenry. This calls for a complex effort involving widespread educational and socio-economic changes.

"Others feel that the situation is too grave to trust to voluntary family planning, and believe that incentives and even coercion must be promptly employed."

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NEWS of the

Carolina Population Center

VOLUME 3, NUMBER 2

MAILING ADDRESS: UNIVERSITY SQUARE, CHAPEL HILL, N. C., 27514

FALL, 1969

Family Planning Papers Read At A.P.H.A. Meeting

Strategies for different aspects of family planning program development were the subject of a series of papers presented at the fall meeting of the American Public Health Association held in Philadelphia, Pa., in November, by experts who have recently been associated with the Carolina Population Center.

"Determinants of Involvement of Low-Income Women in Public Family Planning Services," were discussed by Dr. Earl Siegel, Donald B. Thomas, Robert W. Tuthill, Dr. Elizabeth J. Coulter and Dr. Sidney S. Chipman.

A report on "Interagency Cooperation for Family Planning Referral in a Metropolitan Area," was made by Dr. Charles B. Arnold, Ann R. Sauls, Dr. Sylvain R. C. Fribourg, and Dr. Millard B. Bethel.

Dr. Elizabeth J. Coulter made a second appearance with her paper "Vital Records Linkage Study of Adoptions and Legitimation of Cohorts of Infants Born Out of Wedlock," while Drs. Arnold and Fribourg similarly were heard twice at the conference with "Family Planning Evaluation Strategy: Should We Be Demographic or Epidemiologic? Best Measures of Early Program Effectiveness."

At the same meeting, Miss Bates Buckner, director of library and information services, contributed a paper on "Identifying and Disseminating Knowledge in the Population Field," as part of a panel discussion on this important aspect of population study.

Udry Research Team To Conduct Massive Study

Dr. J. Richard Udry, associate director of the Carolina Population Center and professor in the departments of sociology and maternal and child health, is project director of one of the largest and most ambitious controlled action experiments in family planning known to have been undertaken anywhere—to try to change the fertility patterns of a whole population.

The massive open-ended research project is expected to take from five to seven years, and may ultimately require about \$2 million to complete.

The U.S. Children's Bureau of the Department of Health, Education and Welfare, the largest single source of

grant money available in the field of family planning, has made special project grants to about 75 communities throughout the nation for family planning programs. The purposes of the programs have been spelled out fairly specifically by legislation: to reduce perinatal mortality, to reduce unwanted fertility, and to reduce illegitimacy.

Dr. Udry's group will evaluate the success of a number of these programs. "The traditional role of the evaluator is to look at programs and measure their outputs," Dr. Udry stated, "but you have no way of knowing whether programs do any-

Cont. p. 3, col. 1

Teheran To Be Conference Site

The second in a series of international workshops conducted by foreign governments in collaboration with the Carolina Population Center and the Ford Foundation will be held in Teheran from June 6-18, 1970, with "Communications and Family Planning" as its topic.

The Teheran workshop is sponsored by the Family Planning Unit, Ministry of Health, Government of Iran; the Faculty of Public Health, University of Teheran; and the Faculty of Medicine, University of Isfahan.

Members of the executive committee are His Excellency Dr. Amir Sardari, Deputy Minister of Health, Iran, who serves as chairman; His Excellency Dr. Ghasam Motamedi, Chancellor of the University of Isfahan; Dr. Chamseddine Mofidi, Vice-Chancellor, the University of Teheran; Dr.

A. Zaidi, of the Iranian Ministry of Health; Dr. John Friesen, The Population Council, Teheran; and Dr. Khalil Asayesh, of the Iranian Ministry of Health, who serves as secretary.

Reporting to the executive committee will be a number of subcommittees, whose chairmen follow: Dr. Khalil Asayesh, chairman of the administrative subcommittee and workshop coordinator; Mr. Amir-Ahmadi, Coordinator, Foreign Program for the Iranian Ministry of Health, who serves as chairman of the opening and closing ceremonies subcommittee; His Excellency Dr. Amir Sardari, chairman of the invitations subcommittee; and Robert Blake, Director of Educational Materials for the Carolina Population Center, chairman of the program subcommittee.

Recent Visitors To Population Center

Mr. Philander P. Claxton, Jr.
Department of State
Washington, D.C.

Dr. William D'Antonio
Department of Sociology and Anthropology
University of Notre Dame

Dr. George C. Denniston
Vice President
Population Dynamics
Seattle, Washington

Dr. Harold A. Frederiksen
Agency for International Development
Washington, D.C.

Dr. Murray Gendell
Center for Population Research
Georgetown University

Dr. A. George
University of Kerala
Kariavattom, Trivandrum
India

Mr. Bengt Janzon
Swedish National Board of
Health and Welfare
Stockholm, Sweden

Dr. Elton Kessel
President
Pathfinder Fund
Boston, Massachusetts

Miss Lorraine Lecompte
World Health Organization
Dakar, Senegal

Dr. Clifford A. Pease, Jr.
Population Council
New York, New York

Dr. T. Paul Schultz
The Rand Corporation
Santa Monica, California

Dr. N. P. Sen
Director
Administrative Staff College
Hyderabad, India

Dr. Robert Shaw
Overscos Development Council
Washington, D.C.

Dr. Ozzie Simmons
The Ford Foundation
Providencia, Santiago, Chile

Dr. M. Thongavelu
Principal
Medical College
University of Kerala

Dr. Dora Tigleo
Institute of Hygiene
Manila, The Philippines
Kariavattom, Trivandrum
India

Carolina Population Center Stimulates Global Traffic

More than 160 specialists in various aspects of population studies visited the Carolina Population Center during the 1968-69 academic year, from the United States and 28 foreign countries.

The Center feels that the exchange of research, training and service experience in these formal and informal exchanges is of immeasurable mutual benefit, and one in which a university-based center can serve particularly well as a catalytic agent.

Travel between foreign countries and the Center has not been a one-way route. Staff members of the Center

traveled more than 407,000 miles—equivalent to sixteen times around the world—on overseas professional visits during the 1969 fiscal year.

A Center official has noted, "Professionals in the population field must keep in close touch with the realities of field problems, with research experience elsewhere, and with colleagues overseas in order to build their own competence and to enrich the total program of the Center."

The Carolina Population Center maintains particularly close contacts with four overseas areas—Thailand, India, the United Arab Republic and Iran, and Latin America. Professional travel concentrates on those areas.

Three Social Scientists Added To Center Staff

Three faculty members in the social sciences were added to the Carolina Population Center staff as research associates this fall, with joint teaching appointments in various university departments.

They are Dr. Shanti Tangri, visiting professor in economics at Duke University; Dr. Noel-David Burleson, lecturer in anthropology and education; and Dr. Thomas E. Steahr, lecturer in sociology.

Dr. Tangri's specialty is the economic aspect of population planning. He has written on population and development in Asia, and is also concerned with benefit-cost analyses of population programs, especially with incentive systems for family planning. Dr. Tangri was most recently a research associate at the Center for South and Southeast Asian Studies at the University of Michigan, and an associate professor at Wayne State University. Previously, he taught at the University of California-Berkeley, where he also earned the Ph.D., and was on the faculty of other universities in the United States and in India. His undergraduate work was done at Punjab University, India.

Dr. Burleson is an international leader in the movement to introduce "population awareness" in formal educational curricula. He has worked closely with officials in the United States and other countries, and has

served as a consultant to UNESCO on this topic. Dr. Burleson comes from Harvard, where he earned a Ph.D. in anthropology, was a research associate in the Center for Study in Education and Development, and a lecturer on education in the Harvard Graduate School of Education. Earlier, he had been visiting professor of anthropology at the Universidad de El Salvador. A number of his articles have appeared in El Salvador, and he has contributed to a book, *Peasants in the Modern World*, published by the University of New Mexico Press.

Dr. Steahr is a demographer-sociologist especially concerned with migration studies. He will now work closely with Dr. Horace Hamilton to develop further demographic analyses of the Southeastern region of the U.S.A. Dr. Steahr received his doctorate from the University of Washington. His experience includes work on the faculty of the University of Hawaii, on the staff of the Office of Population Research at the University of Washington, and supervisor of several demographic projects in Washington cities and counties. His writings include collaboration on the book *Migration of College and University Students in the United States*, published in 1968 by the University of Washington Press.

UDRY (cont. from p. 1)

thing unless you have some control over the program inputs and their locations. You can't evaluate a program by looking at the program, in our view, but by observing what a program does to the community it is supposed to serve."

Accordingly, Dr. Udry's group designed an action experiment in which it had some opportunity to influence the locations of the programs, the input in dollars and in services, as well as sufficient financing to collect the kinds of data required for thorough evaluation.

The group identified a set of American communities which it regarded as in great need of family planning, on the basis of statistical evidence. From this set of communities, the group drew at random the names of 12 cities for experiment and six for control. Some of the experiment cities drawn at random had already applied for family planning program grants; none of the control cities had applied. A research staff member went to the cities in the experiment group where there were no programs, to stimulate interest in development of a program.

There are three experimental variations in the program components which have been identified as controversial; there is debate in the family planning fraternity as to whether they are important or not. They are: a program for men, a program for those who were never married and never pregnant, and a program for mass media designed by a top-level professional advertising agency. The program variations will be spotted in different combinations in different cities to see what effect they have on program goals.

Dr. Udry's staff consists of Dr. Naomi Morris, associate director; Dr. Trois Johnson, evaluation services consultant; Charles Chase and Mrs. Lydia Clark, statisticians; Mrs. Pat Fleisher, research associate in charge of mass media; Mrs. Alexa Aycock, research associate in charge of monitoring excess fertility; Mrs. Jane Adkins, librarian-bibliographer; Dr. Karl Bauman, field survey specialist; Dr. Jaroslav Hulka, obstetrical consultant to the project, and Mrs. Jere Perrine, project secretary.

New Educational Materials, Monographs Available From C.P.C.

The Educational Materials Unit, now in new offices at 214 Cameron Avenue, has recently completed work on two color flipbooks entitled "Why People Plan Pregnancy," and "How People Plan Pregnancy." Created for the Office of Economic Opportunity, both flipbooks were tested before and after printing, and complete reports of the results were compiled for OEO. Presently, the books are being reprinted by the Government Printing Office and distributed to the 150 OEO-funded clinics.

Monograph 4, *Final Report: International Workshop on Communication Aspects of Family Planning Programs*, Robert Blake, Editor, and Monograph 5, *Beliefs and Attitudes About Contraception Among the Poor*, by Robert Blake, Chester Insko, Robert Cialdini and Alan Chaikin, are now available in print, at a cost of \$1.50 each.

Work in progress includes Monograph 6, *Family Planning Educational Materials; An Annotated Bibliography of Selected Items*, Robert Blake, Editor; and Deborah Stirling and Suzanne Wolfe, Associate Editors. An extended revision of the first

bibliography published in 1968, this publication will be completed by the end of November, 1969.

The weekly newspaper question and answer column, "Pregnancy Planning & Health," which ran last year in one North Carolina paper, is now running in four papers, and work is in progress to increase its distribution within the state.

Two projects are in the preliminary stages of development. The first is a series of four photographic filmstrips aimed at the woman whose education did not go beyond the elementary level. Projected content of this series includes a relatively simple explanation of conception presented in conjunction with more detailed discussions of medical, non-medical and ineffective methods of contraception.

A second project now underway is a series of television commercials aimed at the middle class American couple. Gregg Dearth, a student in the Department of Radio, Television and Motion Pictures, has joined the Educational Materials Unit on a part-time basis and is working with the staff in developing the project.

International Information Services Discussed

Bates Buckner, director of library and information services at the Center, visited four international agencies in Europe this past summer to discuss their needs and interests in future collaboration on an international population information system. She conferred with officials at the World Health Organization in Geneva, the International Planned Parenthood Federation in London, the Organization for Economic Cooperation and Development and the United Nations Economic Social and Cultural Organization in Paris. She reports that the agencies recognized a strong professional need for such an innovative plan.

Paper Read at World Conference

Dr. J. F. Hulka and Dr. K. F. Omran, both of the Carolina Population Center, presented a paper on "Cauterization for Tubal Sterilization," at a meeting held at Cherry Hill, N. J., in October. At this international conference, sponsored by the National Institutes of Child Health, leading researchers from throughout the world summarized present knowledge about human sterilization as a family planning method.

Dr. Hulka is the author of the first of the Carolina Population Center's monograph series, *Therapeutic Abortion*, based on a symposium held at Chapel Hill during the summer of 1967.

Students Come From Eighteen Nations

Eighty-nine students specializing in population studies, including 37 newcomers and 50 continuing students, began the 1969-70 academic year at Chapel Hill in September, with an orientation program and official reception held in the Carolina Population Center. The reception room was brightened by flags of nations with which the Center has especially close relationships.

The number of population-oriented students in 1967 was 66, and last fall rose to 100. The dip this year is due to cutbacks in national fellowships. A gradually-widening geographical representation is observed in student backgrounds: in 1968, 14 countries were represented, while this year there are 18. A total of 49 students are from the United States, 10 are from India, 8 from the United Arab Republic, 3 from the United Kingdom, and either one or two from Canada, China, Colombia, Ghana, Iran, Ireland, Korea, Nepal, Nigeria, Pakistan, the Philippines, Thailand, Trinidad and Vietnam.

Slightly more than half of the students, 47 of them, are enrolled for studies in public health disciplines—biostatistics, epidemiology, health administration, health education, and maternal and child health. The remaining 40 are identified with other disciplines having specific research or service contributions to make to the population field.

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State Officials Conduct Briefing On Title IV Family Planning Programs

More than 500 staff members of county departments of social services and local health services throughout the State of North Carolina attended briefing sessions on family planning program development during October.

Representatives from the offices of the Commissioner, North Carolina Department of Social Services and the State Health Director, North Carolina State Board of Health, conducted meetings in Asheville, Fayetteville, Greenville, Hickory, Lexington and Raleigh. The purpose of the meetings was to inform county and local officials of the agreement arrived at by health and social service agencies at the state level to work together in providing comprehensive family planning services to former, current and potential AFDC recipients. The Carolina Population Center cooperated in the series of meetings.

Family planning in the category of aid for families with dependent children was made possible by the 1967

amendment to Title IV of the national Social Security Act, which provided that the federal government would make available 75% of the funds needed for comprehensive family planning programs affecting this group of people.

The North Carolina state-level formula resulted from six months of effort, especially by Dr. John King, Chief, Child Health Section, State Board of Health, and Louis O'Conner, Director, Welfare Programs Division, State Department of Social Services. Assistance was provided from the Carolina Population Center by Dr. Trois Johnson, Edward S. Trainer, and P. Paul Burgess.

At the six briefing sessions, county and local officials expressed enthusiasm about the program's potential. Many have since moved towards formulating strengthened county plans that include administrative, educational, social and medical components of family planning programs.

Departments with the largest investments in teaching of population students are biostatistics, 18; sociology, 14; health administration, 13; anthropology, 9; maternal and child health, 8; and zoology (ecology), 7. Other departments involved in the program include health education,

political science, psychology, epidemiology, geography and education.

Fifty-four students are working toward doctorates, 47 pursuing the Ph.D. and seven the Dr. P.H. Thirty-one are enrolled in programs at the master's level, and two are on non-degree programs.

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