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A P P E N D I X

Analysis of Ten Subprojects Visited in the Less Developed Countries

(Note: Each Subproject is paged separately)

PROJECT NO. UM 73-1

NAME OF SUB-PROJECT Field Trials of 3 Strategies of Persuasive Communications
and Education in Family Planning in Venezuela.

U.S. UNIVERSITY Michigan

1) General

The activity supported is technical assistance in conducting a research project mounted by the Evaluation and Investigation Division of the Venezuelan Family Planning Association. The study in question is a comparison of three alternative communication channels which may be used to reach potential clients for family planning services. The three alternative lines of communication are:

- a) early adopters of family planning
- b) public health and other officials with close relations to the people
- c) unofficial community leaders.

The study is being carried out in the usual survey project manner:

- 1. conception and design of the study
- 2. preparation and testing of questionnaires
- 3. design of sample
- 4. drawing of sample for collection of data
- 5. collection of data
- 6. editing of schedules
- 7. coding
- 8. preparation computer program
- 9. run for consistency
- 10. correction for errors -- "clean-up" of tapes
- 11. analytic run of data
- 12. interpretation.

The project is now at step 11. In connection with this project, we interviewed the Political Counselor at the U.S. Embassy as reported below. We made a site visit to the FP Association October 4, 3:30 p.m. - 6:00 p.m., at the central office of the Asociacion Venezolano de Planificacion Familiar (Venezuelan Family Planning Association) in Caracas, Venezuela; in addition, we had an informal visit with the Venezuelan project director, Dr. Cerutti, on the evening of October 7.

The Research and Investigation office was a well-organized and appointed office in the headquarters of the Association situated in a low-rent warehouse. We interviewed the Director of the Evaluation and Investigation Division, the Computer Systems Analyst and the Sociologist in charge of data collection.

The Director of the Evaluation and Investigation Division is a specialist who initially donated part of his time to family planning. He realized his deficiencies in the research and evaluation field and registered for a Master's in Public Health at the University of Michigan. There he met Prof. Star of Michigan, one of his instructors. This sub-project was a natural outgrowth of the Kar-Cerutti training relationship.

2) Project Design

The project concept and design is original and well-thought out. While several other research projects in other countries have sought the optimum communications channel between the family planning center and its potential clientele (e.g. in Thailand, Taiwan, Malaya), none, to our knowledge, has studied the three communication systems listed.

3) Implementation

Step 2, design of the questionnaire, was apparently largely done in Michigan, and was tested and improved in Venezuela. The sampling design was also partly performed in Michigan. Step 4 thru 7 inclusive were done in Venezuela. Step 8 was performed partly in Michigan. Step 9 revealed some inconsistencies requiring a Michigan project staff member to work in Venezuela for a number of weeks to perform Step 10. The data tapes are now in Michigan for computer runs.

4) Difficulties

Difficulties encountered so far were:

(1) Financial Control - There is an insufficiency of working capital in the sub-project. University of Michigan will not reimburse without receipts for expenditure. It would have been better to arrange an advance of salary payment for the data collections workers.

(2) Amount of Allocation - With salary and wages rising rapidly in Venezuela, the amount of funds allocated to operations in Venezuela is clearly insufficient. Size of sample had already been reduced to Economize on money.

(3) Time Pressure - Pressure to complete data collection and coding caused a slighting of Step 6 (editing) resulting in excessive errors and requiring more time to be spent on Step 10 (clean-up) than would have been needed if Step 6 had been done better. The project is only a little behind schedule.

5) Application of Project Findings in Venezuela - According to Dr. Cerutti, there is every prospect that if the project findings are significant they will be applied. The Research and Evaluation Division works in close relationship with the Executive Director of the Family Planning Association.

Only experience will reveal, however, whether the family planning clinical service department will accept and apply the findings of the Research and Investigations Division. The service department (with 135 family planning clinics) is being absorbed in the regular governmental structure, but the remainder of the Association remains outside the government structure and is funded by government grants, with some funds from private sources. The effect of government administration of the clinics themselves but indirect relationship with the parts of the organization remains to be seen.

6) Application Elsewhere - Any knowledge obtained from the Venezuelan experience can be readily transmitted to other Latin American countries through an established-institutional mechanism. The Venezuelan experience will eventually be described in technical publications and thus be available to the worldwide community of family planners.

Since there are a number of other projects on "change agents" and "communications" in FP, financed by AID, AID will have an opportunity to use these studies as a data base for new studies which might be designed to derive policy measures in allied fields.

7) Other Uses of Sub-Project - Although this subproject was designed as a research project, it is also an institution-building project.

Within the Research and Investigation Division, this project serves to train the entire staff engaged in the project. This is a prototype project whose format can be used to study many other questions. Also, data built up in the sample areas by additional surveys will serve as a data bank which can be used for new studies.

This subproject also serves to institutionalize Research and Investigation in the Family Planning structure, partly because of its outside support (which is prestigious) and partly because the research project yields statistical print-outs in clinic activity which can potentially be very useful in improving clinic operations.

8) Effect on Population Growth - Dr. Cerutti is not optimistic that the establishment of family planning clinics, no matter how many and how efficiently run, can reduce population growth to zpg. He believes that legal measures, such as legalizing abortion and establishing high legal age requirements for marriage, would have a greater impact. In part this is because the Venezuelan population is young and the big bulge in births from this young population is still ahead of us instead of behind us.

9) Venezuelan Political Climate for Population Project - Virtually repeating the same words as Mr. Randolph, Political Counselor of the US Embassy, Dr. Cerutti expressed concern about any direct official U.S. Government program to assist Venezuela in family planning. He cited the experience of a U.S. financed doctor who held an inconspicuous position in the F.P. Association but whose name is still invoked in the press as an example of U. S. imperialism.

The U. S. Government intervention in the family planning field was discussed with the U. S. Embassy's Political Counselor Virgil Randolph. He stated that Venezuela's economic development problem -- despite Venezuela's great riches from exports of oil and minerals -- is a great one because of the lack of trained personnel available for government service, inadequacies in government organization and structure, and lack of an adequate knowledge base in government of how to proceed to solve these problems. Despite the knowledge and manpower lacks indicating the desirability of using foreign advisors, sensitivity to foreign intervention requires the foreigner to maintain a low profile. In the population field, in particular, official foreign intervention would and does create severe problems, he continued. The Catholic base of the country preconditions the country against birth control. Some people regard the great underpopulated areas of Venezuela as capable of absorbing any excess population and attempts to reduce births as contrary to Venezuela's future destiny. At the top level, however, the government is committed to birth control, but the organizational structure in the field is unsatisfactory.

In this environment hostile to any foreign intervention in the population field, the activities of the University of Michigan and the University of North Carolina have not created any discernible backlash. Mr. Randolph was extremely pleased that the U. S. Government had chosen to work through the U. S. university system instead of using U. S. Government officials, characterizing the U.S. university mechanism as "wonderful."

Mr. Randolph regards a level of U. S. intervention in the population field higher than the present one as "non-productive." It thus could be dangerous to the U. S. Government to distribute birth control devices here.

10) Relationship to UM - Dr. Cerutti stated that the existing relationship with UM is ideal and except for the points mentioned in "4. Difficulties" above, cannot be improved. Dr. Cerutti would appreciate other projects with UM, in particular converting the present Type I project into a Type II. He also has a more ambitious program in mind -- but this one had already been turned down by U. S. official channels.

Dr. Cerutti derided the idea that Venezuela was developed and in no need of technical assistance because she had oil revenue. He, in fact, believes that the Government's inability to understand its own problems and incapacity to carry programs out requires the friendly assistance of the U.S.

SUMMARY EVALUATION: This subproject is well-conceived project both technically and politically, with potentially very high direct payoff and very high payoff in institutional improvement.

Can be improved by conversion into Type II program, by increased amount of funding and by making provision for a working capital advance.

SUBPROJECT NUMBER UNC 73-2

NAME OF SUBPROJECT Developing Venezuelan Capacity to Teach Management Skills
in Responsible Parenthood Programs

UNIVERSITY North Carolina - Chapel Hill/Carolina Population Center

1. Subproject Activity - The activity supported by this subproject is a "sister university" relationship between the University of North Carolina - Chapel Hill, and the Instituto de Estudios Superiores de Administracion (IESA) - the Institute of Higher Studies in Administration. The Health Administration School of UNC, under the coordinating mechanism of the Carolina Population Center, is the institutional entity largely involved in this activity. In IESA, the relationship is with the Academic Director, Dr. Henry Gomez, and a number of members of the faculty with interest in population problems.

The "sister university" relationship is one in which UNC provides the following services to IESA: a) acts as entrepreneur -- devising, suggesting, facilitating and coordinating academic, research or seminar activities for IESA in the population area, b) provides technical information in subject matter areas, c) provides guidance on research papers in the population area, d) provides bibliographic and publication services, using CPC computer information retrieval system and duplicating facilities, e) provides other logistical support f) provides financial management assistance in carrying out the subproject and g) provides a headquarters for IESA personnel on family planning business in the US.

Responding to the guidance and suggestions of UNC, IESA has so far undertaken the following activities: a) provided logistical support and participation in a workshop for family planning organizations of 6 Latin American countries (UNC personnel participated as resource personnel), b) provided time for faculty to do independent research in population problems and family planning, for doctoral thesis purposes or for publication c) provided faculty time for studies of the family planning system in Venezuelan (partly funded elsewhere), d) introduced family planning and population as suitable topics for student seminar work and e) conducted a KAP study among students.

A site visit to IESA was made October 7, 1974, where we spoke with the Director of Academic Studies, Henry Gomez, and professors Federico Joubert and Gene Bigler, from 3:30 pm - 6:30 pm. We subsequently took a quick tour of the library and other facilities. The school is located in a good residential area. The building is unfaced rough concrete exterior and exposed concrete interior. The design is beautiful and functional, and the facilities for meetings, classrooms, etc, clearly first class.

2. Setting of the Subproject

IESA is a graduate school of public and business administration. The following description is excerpted from material supplied by IESA:

"IESA - Institute for Advanced Studies in Administration - is a graduate center of education and research in public and business administration. IESA's objectives center on contributing to professional management in Venezuela by means of (1) a Master's program featuring internationally recognized standards; (2) short, intensive executive development and midcareer training programs for both the public and private sector; and (3) substantial research output addressed to Venezuela's development needs."

"IESA's six quarter, full-time Master of Administration degree program was initiated in 1968 with substantial support from the Ford Foundation and advisory assistance from a Committee in which leading U.S. Schools of public and business administration have been represented; these include Cornell, Chicago, Harvard and Syracuse, with Northwestern's Graduate School of Management serving as Coordinator. IESA's full-time faculty now totals 17 of whom 9 have completed the Ph.D, 4 more are expected to complete the degree during the current year and 4 others are still engaged in course work. Five additional part-time specialists have continuing faculty appointments, three of whom hold a doctorate.

"Student enrollment in the Master's program has increased from a class of 19 entering in 1968 to an entering class of 52 in 1973. Executive programs, which began to be offered in 1971, have attracted more than 750 participants drawn from more than 200 Venezuelan business firms, public agencies and educational institutions. A number of IESA's executive programs are offered in collaboration with U.S. academic institutions, including Indiana University, the University of Georgia, and the Pennsylvania State University."

As indicated, the inspiration and funds for the establishment of the school were American, chiefly Ford Foundation, which has similar projects in Central America and Asia. For its current operations, IESA strives to be self-supporting. In addition to tuition payments, which cover only a small portion of the total annual school budget, IESA is funded by grants and contracts. In the field of public administration, IESA is currently funded by AID through this subproject and indirectly under a GE-TEMPO population projection contract which is also AID funded, by the Interamerican Development Bank, by the National Council of Venezuelan Universities, and by the Organization of American States. IESA's activities are largely determined by its sources of financing. Since private sector donations make up the inevitable deficits, IESA cannot long continue an activity which does not either encourage other donors or provide a basis for fee-financed activities.

The financial status of IESA will change when it becomes absorbed into the national education system in about five years. The strategy of the school's directors is to delay incorporation into the national education system until the character of the school is well established. In IESA's own words:

"IESA operates independently of Venezuela's university system, a necessary precondition to permit the wide-ranging innovations that IESA has introduced in Venezuelan education. These include the Ph.D. requirement for its faculty, full-time faculty service, full-time study at the graduate level, demanding student workloads, a variety of instructional methods considered new in Venezuela, and the nation's first Master's degree program."

With the help of the subproject, IESA has built up a faculty capacity in the field of management of family planning clinics and other health services. The subproject owes its genesis to the fact that two UNC professors, in Latin America on other family planning business, found that Henry Gomez, the Academic Director of IESA, had developed an interest in family planning as a result of his participation in a Ford Foundation financed activity to evaluate family planning institutions in Venezuela.

3. Rationale of Subproject

The subproject is only part of a larger whole, namely, the Ford Foundation concept to establish an academic "center of excellence" in Venezuela, and to do this in the field of public and business administration. This concept has already been widely debated in educational and economic development circles. Where it shows promise of succeeding in its far ranging objectives, as it does in Venezuela, the benefit to the country and to the region can be enormous.

It was the University of North Carolina conception to provide this institution with a special capacity in the management of health services institutions, including family planning. It was partly a fortuitous conception, but UNC deserves a great deal of praise for uncovering the opportunity and moving resolutely to fund the project through the USA device. The outputs of IESA in the family planning field, though modest, establish that IESA can accomplish more in the future.

There are presently two institutions in Venezuela capable of helping the government improve its family planning activities, IESA and the Research and Evaluation Division of the Family Planning Association, discussed in the chapter on University of Michigan subprojects. There are two potential weaknesses in the UM subproject with respect to improving the efficiency of the family planning clinics: that the Research and Evaluation Division is still a private association activity that may become divorced from the running of the clinics, which are being taken over by the Government; and that this division is still largely interested in medical evaluation and is mostly staffed by M.D.s, who are not greatly concerned with management efficiency. The weakness of IESA, however, is that its interest and financial backing to remain in the population field may not be permanent. If, for example, AID provides no new funding over present levels, IESA may not succeed in obtaining government grants or contracts concerned with family planning.

Furthermore, IESA may be tempted to move into areas which would assure it greater financial security. It may well be, however, that by financing IESA's activities in the family planning field for another year or two, IESA will develop sufficient capacity and competence to attract local funding. Thus, if AID accorded high enough priority to Venezuela, it would be desirable to hedge its total investment by continuing support both to the Research and Investigation Division of the Family Planning Association and to the family planning activities of IESA.

4. Management and Other Problems of IESA Subproject

The IESA subproject was unfortunately funded under a Type I (problem solving) format, when it is quite evident that IESA is a Type II activity. In contrast with the three year funding limit for Type I projects, Type II projects are funded for five years, which is none too generous for institution building projects. In order to test AID's original judgement that IESA should be funded in the first place, a five year project would be required. The subproject cannot in any way be evaluated as a problem-solving Type I activity, and the attempt to understand the subproject as a Type I activity has led to much misunderstanding.

The subproject appears to be in an early stage of development, and much more can be done with relatively modest additional financial inputs. Despite the heroic efforts of UNC personnel, particularly Jim Allen, this evaluator suspects that Dr. Gomez' appreciation of the population problem and what IESA could potentially accomplish in this field is not all it might be. For example, no teaching modules on population planning have been introduced in the curriculum, yet the school offers courses in Economic Development of Latin America, Macroeconomics, International Economics, Regional LA Integration, Planning, and the Political Economy of Agriculture. It is difficult to see how these courses could be taught in a modern manner without injecting a large dose of population theory into them. Dr. Gomez is planning to introduce a course in demographic statistics, if he can obtain someone in that field. This, of course, is rather modest. It is purely a subjective feeling on the evaluators part, derived from Dr. Gomez' statements on substantive issues, that UNC faculty will have to spend a good deal of time with Dr. Gomez before he appreciates all the dimensions of the population problem of Latin America.

Dr. Gomez made a complaint about the funding of his activity, expressing the feeling that more of the subproject funds should move to IESA instead of UNC. He also would like an increase funding level for international travel so that IESA faculty members could easily reach UNC when they have a problem or to receive guidance on research work. These two comments undoubtedly reflected an administrator's concern with the pressure of obtaining enough funds. Dr. Gomez also indicated that he was dissatisfied with being a junior partner in the UNC-IESA relationship, feeling that his staff was already as good as the UNC staff.

Since these remarks were inconsistent with the high praise heaped on UNC personnel, and his request for more UNC faculty time in Caracas and more access to UNC personnel in Chapel Hill, they were attributed to the general feeling of euphoria surging through all parts of Venezuelan society as a result of higher earnings from oil exports.

NOTE: Additional commentary on the Family Planning activity in Venezuela will be found in the University of Michigan Chapter in the discussion of subproject UM 73-1.

SUMMARY EVALUATION. The establishment of a family planning management capacity in IESA would add significantly to the capacity of the Government of Venezuela to carry out effective family planning activities. The progress already made in IESA in this direction and the steps undertaken by the government, while still modest and faltering, provide a basis for hope that a strong program can be developed. The IESA activity should be considered a Type II activity and funded accordingly.

NUMBER OF SUBPROJECT: UNC 73-8

NAME OF SUBJECT: Institutional Development of Asociacion Colombiana para el estudio de la Poblacion (ACEP)

U. S. UNIVERSITY: North Carolina

1) General

The subproject activity is to provide technical and financial assistance to ACEP in performing a study of Columbian nationals sent abroad for study in the population field.

There appears to be some ambiguity as to whether the subproject is an institution-building one or a problem-solving one. Although ACEP undoubtedly strengthened its capacity to engage in survey-type research projects through this subproject, the subproject was actually carried through as a problem-solving one.

The study has two distinct parts: an examination of the students sent abroad for training (their prior training, qualifications, experience in overseas training and effects on career) and an analysis of institutions in Columbia engaged directly or indirectly in the field of population and family planning.

The potential payoffs from the study itself are considerable. Many institutions are engaged in sending students abroad for study in fields which could be identified as related to population and family planning. Since overseas training is a high risk enterprise -- because of failures to accommodate to overseas training or living, the brain drain, failure to continue a career to which the training is relevant -- any improvement which can be made in student selection or choice of overseas study program would be very welcome. It is regrettable, but by no means fatal to the success of the project, that USAID has no present plans to send additional participants in population overseas. A statement by Mr. Bain, AID Population Officer, that no potential participants remain, was emphatically denied by the ACEP staff. Even if no potential participants remain today, it is evident that an expanding program in Columbia will require additional trained manpower in the future.

The study of the institutions sending or using participants also yields substantial benefits. The results of the study, already available, permit each school, research office, or other institution to understand its relative place in the population institutional structure, and its comparative use of trained manpower.

It facilitates a review of the institutions' standard operating procedures with respect to selection of or employment of participants, particularly as it affects salary, promotion and tenure.

A site visit was made on October 10, where we met with the senior staff of ACEP as well as the technical director of the project. Because this sub-project was considered as largely a problem-solving one, comparatively little time was devoted to discussing ACEP as an institution. However, we did learn of some past activities - such as a study of the status of women. The level of discussion indicated a high level of expertise. The office, which was in a converted residential property, appeared very adequate. If casual impressions can be relied on, ACEP appears to be a viable well-led organization, with a distinctive leadership role in the Columbian population picture.

Subproject Activities: Immediately after the subproject was approved, hiring of personnel began. Dr. Wight, the UNC representative, had reservations about the competence of the director, Jorge Betancour, in the field of survey design, but, as Dr. Wight herself admitted, Betancour made up his deficiencies, with the help of technical assistance from UNC, and is performing creditably. In conversation, Betancour was impressive intellectually although somewhat diffident in discussing technicalities of survey design.

The two surveys (persons and institutions) were complicated by the problem of identification and definition - exactly whose training was in population, and which institutions can be considered to be in the population area. The resolution of these problems turns out to be one of the benefits of the project.

Questionnaires were prepared with the help of UNC, pretested, revised, retested and revised again, with inputs both from UNC and ACEP.

The first draft of the report on institutions was completed on June 1974, and revised the following March and completed in August 1974.

The 93 page report exists only in the Spanish version at present and (barring the hazards of reading quickly in Spanish) seems impressive.

The data on participants was collected and coded, and is now in UNC awaiting machine processing.

3) UNC-CPC Management: UNC-CPC, in addition to its role in conceiving and developing the subproject, rendered high quality service to ACEP. The resources brought to bear were impressive -- Allen and Wight as initial entrepreneurs and project developers, Smallagen as training specialist, Applebaum as survey statistician, with a speciality in testing, and the computer facilities of UNC. ACEP stressed particularly the adaptability of UNC and its willingness to offer ACEP a choice in UNC personnel. It was inferred from the politesse of the language that originally there had been uncomfortable working relationships between the UNC/ACEP staffs, presumably because of a lack of confidence in the suitabilities of skills to the tasks involved. But to the credit of both institutions, this conflict was resolved satisfactorily. Thus, ACEP could honestly extol the "flexibility" of UNC, and UNC could honestly judge that the technical director of ACEP had risen to the job.

Summary Evaluation

Studies of the kind undertaken in this subproject are indispensable in building a program expected to be required for decades. The institution-building spin-offs from this project are also distinctive contributions to Columbian capacity to meet its population problem.

UNC-CPC demonstrated a depth, diversity, and sensitivity which do credit to it. This subproject confirms the viability of the USA concept.

PROJECT NO. UNC 73-1

NAME OF SUBPROJECT: Training for Public Health Nutritionists' Leadership
in Responsible Parenthood

U. S. UNIVERSITY: North Carolina

1) General

The project activity is to integrate family planning information with the curriculum of a four year school for nutritionists at Javeriana University in Bogota, Columbia. Graduates of this school may subsequently find employment as supervisory field workers in the governments' community extension program or in other high status employment in which they can influence fecund couples to adopt family planning.

The UNC input consists of technical assistance from Dr. J. Endozien, Chairman of the Nutrition Department, School of Public Health, UNC, who has made several visits to the school and from Dr. J. Audrey Wight, resident UNC advisor and herself a nutritionist. Through this grant, funds flow to Javeriana University to supplement the salary of the local codirector of the project and to pay for the salary of the staff. Mrs. Wight's salary is paid from this and the subsequent subproject discussed below, but her actual duties are wider and include representing UNC in other projects and in new subproject development, and in being generally useful to the AID Mission in its work at Javeriana University, in connection with participant training programs, and in MCH and nutrition areas.

Under the technical and financial stimulus of the UNC project, 8 study modules in which demographic material was integrated were prepared by the Javeriana staff, and these have been and are being introduced into two types of curricula: the regular four year nutritionist course and short refresher courses for active nutritionists. In addition, the school administered population and family planning knowledge and attitude tests to all nutrition and dietetics faculty members and 4th year nutrition students. These serve as a basis from which to measure the effectiveness of the teaching program in the population field. The education in family planning given to the students has already made possible the use of this material in the rural practicum which senior students undertake in their 4th year. Efforts are being made by faculty members to introduce the Javeriana material and techniques into other nutrition schools by means of exchange visits, seminars and workshops with other schools.

A field visit was made to the Nutrition School of Javeriana University in the morning of Oct. 10, 1974, at which time we met and talked to the Codirector of the activity, Mrs. de Tripp, greeted or spoke to virtually all of the staff financed by this subproject and toured the school. Later, we spoke to the Rector of the University at length. A year earlier, we had discussed the subproject at some length with Dr. Endozien on the UNC Campus. The physical school is excellent, and both the professional and clerical staff appeared competent and knowledgeable.

2) Subproject Design

Although the subproject design appears straightforward, upon examination in the field, it appeared to be not as simple as its ostensible design.

As designed, the subproject is a communication and motivation activity in which trained nutritionist field workers advise fecund couples to utilize available family planning services. As Mr. William Bair, the AID Population Officer readily admitted, it would, however, be extremely difficult to justify the activity as cost-effective on that basis alone. With respect to the 4 year graduates, one would expect a considerable attrition rate between graduation from school to actual employment as a field extension worker. Since Javeriana is a private Catholic school of highest social status, it is likely that few of the graduates take field work assignments or remain long at that job. Judging from the affluent appearance of the students, tuition costs, and the nature of the curriculum, it is likely that the school is a "finishing school" for ladies before marriage. Further, assuming that the graduates do take employment as supervisory nutrition field workers for a period, it is unlikely their advice to fecund couples on utilizing family planning services would be decisive. The short refresher courses given to actual employed field extension workers potentially have a higher impact in motivating fecund couples to adopt family planning and to communicate the required information to them. In any event, Mr. Bair, the AID Population Officer, was unwilling to venture any statistical estimates on the per family cost incurred by this subproject to induce families to practice birth control. In short, this subproject cannot be understood or appreciated as a family planning communications or motivation activity alone.

According to the Rector of Javeriana University, this activity was understood by him as a pilot project to determine whether he could work with the United States Government and AID on a more ambitious educational project, described under the next sub-project.

Mr. Bair, the Population Officer, attempted but did not succeed in articulating to this evaluator what the true project concept and design was. According to Mr. Bair, this subproject is but a small part of a grant design in helping Colombia achieve a reduction in population growth. This conception purportedly was fully explained in the section on Colombia (pp 101-104) in "Population Program Assistance," AID/PHA/POP for 1973. However, this activity is not mentioned in that reference. Mr. Bair explicitly denied that the subproject was a MEC program using Title X funds. It was a project originated by Mr. Bair and Mrs. Wight before Mrs. Wight became a UNC employee.

UNC Responsiveness

Mr. Bair apparently had considerable difficulty in inducing UNC to undertake this subproject and to place Mrs. Wight on its payroll. Nor, according to Mr. Bair, is UNC always willing to accept Mission participants.

These matters to one side, Mr. Bair expressed the judgement that UNC has been very helpful in performing on this and the next subproject to be discussed. In addition, UNC helped establish the informational and attitudinal base for these two subprojects by conducting two seminars in population for Colombian opinion and educational leaders on the UNC campus.

If UNC actions can be faulted at all, it lies in its willingness to be accommodating to Mr. Bair's requests for assistance. Mr. Bair's commendable ambition for AID's success in Colombia, harnessed to his forceful personality and his declared willingness to bend the rules to get things done, might well be the factor explaining the number of hours, doubtless after regular working hours, that Mrs. Wight, the UNC representative, devotes to USAID's work. When asked why Mrs. Wight, whose population expertise was acquired while participating in a UNC population seminar, was not hired directly by the Mission to facilitate its nutrition and MCH program, Mr. Bair implied that it was appropriate to use the USA arrangement as a means of keeping Mrs. Wight available for part time USAID work.

This evaluator (whose expertise as an educator is limited, even though he served for a period as Chief of Education in USAID/Pakistan) examined the teaching modules prepared under this project and did not find a substantial population or family planning component in them. He does, however, commend the introduction of teaching modules (lesson plans) at the Javeriana University. Also, in assessing the personalities of the Colombian Dean and teaching staff in the nutrition school, he can well appreciate that Mrs. Wight's presence and the funds disbursed under this subproject provided the financial and psychological support which makes it possible for this school to contemplate any kind of innovative step, such as introducing a discreet mention of family planning in a school of nutrition.

It should also be said in passing that the level of work being done at the school is probably more aptly described as a phase of "home economics" rather than as "nutrition". Hence, the graduates, who would have the American status of technicians and not professionals, would, if employed, be apt to have a closer connection to potential clients for family planning service than would an American professional nutritionist.

Summary Evaluation

UNC has been responsive and helpful to the USAID in carrying out Mission objectives.

It is the responsibility of the AID/W staff to determine whether the project meets Title X objectives and whether the subproject adheres to that matter guidelines for acceptable projects.

Since the activity was conceived by the Mission, and UNC had to be pressured into undertaking it, it was the Mission's responsibility to choose activities which would further the objectives of Title X. Such judgements are predicated on the existence of an overall AID population strategy which integrates Mission strategies and assigns priorities to activities in each geographic area and country. The scope of this evaluation does not include making a judgement on AID or population strategy or whether particular judgements by AID officers were good or bad.

It is concluded that UNC-CFC performed well under the circumstances.

PROJECT NO. UNC 73-3

NAME OF SUBPROJECT: The Institutional Interdisciplinary Program of Studies
For the Integral Development of the Population

U. S. UNIVERSITY: North Carolina - Carolina Population Center

1) General

The project activity is to provide "sister" university support to Javeriana University in Bogota, Columbia, in launching one unit (that on Population) of its new interdisciplinary graduate school. The UNC/Javeriana relationship is both academic and financial inasmuch as UNC will transmit a substantial part of the funds it receives from AID to Javeriana to defray faculty salaries, travel, and other expenses.

The particular concept employed in this subproject for an interdisciplinary school at the graduate level is the invention of Alfonso Borrero, S. J., Rector of Javeriana University. Since conceiving it in 1965, Rector Borrero has been visiting universities all over the world to explain the concept and probably to solicit financial assistance to help launch the new school. The new academic institution has now been instituted. This subproject finances activity in the Population area and other donors will finance different study areas.

The explanation of the interdisciplinary school concept offered by Rector Borrero in one of his publications utilizes profound philosophical concepts beyond the scope of this report to reproduce. Suffice it to say that Rector Borrero intends to treat a particular problem relevant to the Colombian experience, such as supplying food to the population, in its every aspect, whether the aspect is agronomy, meteorology, family labor, marketing, price information or nutrition. A student who successfully completes the course could presumably enter anywhere in the food production-food consumption chain and find a career niche.

The course content of an interdisciplinary unit in population is a matter being studied in UNC by a special committee, and in Javeriana, by a well-qualified unit.

While the invention of this particular interdisciplinary graduate school concept is a decade old, Rector Borrero did not visualize a unit program in population until it was suggested to him by Dr. J. Audrey Wight, UNC representative in Bogota. She pointed out to him that the USA grant provided an appropriate vehicle for technical assistance and financial support. Dr. Borrero had already been testing, through the nutrition subproject previously discussed, whether he could accept funds from AID, through the UNC mechanism, in an atmosphere of intellectual equality and without compromising his independence.

Using other funding, but after approval of this subproject, UNC organized a month long seminar in population for 13 Javeriana University top personnel, including the Rector. The material transmitted through that program forms the starting point for the elaboration of materials to be included in the teaching program.

The field visit on October 10 was limited to a long discussion with the Rector, at which time he made available extensive material on his concept.

2) Subproject Activity

At the Javeriana University campus, efforts were launched to digest the subject matter material on population received in the initial seminar, to identify academic resources available for the graduate program and to specify points in the academic curriculum at which population material could be introduced. Also, a director of the program was named, Father Alejandro Angulo, a Ph.D. in demography and other appointments were made as well.

A KAP base line survey was made at 4 Javeriana Health Services Schools, with UNC assistance, to identify the extent of existing knowledge and to locate lacunae. Courses at which population-relevant material could be introduced were identified and in some cases appropriate material introduced. The important work connected with formalizing the activity as a University activity, establishing financing mechanism; and establishing the program within the University, rules, was accomplished. Although there was some delay caused in part by Rector Borrero's heart attack, from which he is now recovered, the subproject is virtually back on schedule.

3) UNC Activity

In addition to its contribution to initiating the project activity and in providing suggested course content through the seminar, UNC maintained constant contact in Bogota through its representative, Dr. Wight, and through visits of several faculty members, librarians, and business officers. On the UNC campus, a UNC technical committee was set up to study curriculum development. A second 30 day seminar was held in UNC for top Javeriana personnel. Funding for some of the activities mentioned was derived from related projects, illustrating the advantage of grouping a number of sub-projects under a USA arrangement. Judging from the activities described in the available documents and the interest exhibited in the project during our North Carolina campus visit, it is evident that UNC is taking the activity seriously and devoting very substantial staff time to it.

SUMMARY EVALUATION

The contribution this subproject will make to the solution of the Colombian population problem will need to be assessed in many spheres, e.g. (a) the effects on government policy, the Catholic Church, the educational system, and the media of the decision by the Javeriana University to launch this program, with assistance from AID via UNC (b) the contribution to be made in the same areas by the future graduates of this program and (c) the effectiveness of the future graduates in their careers in the population area. Cognizant of the persistence of the population problem through time, one recognizes the essential wisdom of embarking on projects whose objectives are intended to be fundamental and enduring.

Only a university of the size, and with the commitment of UNC to population could have undertaken a project of this sort. The existence of the USA grant mechanism greatly facilitated the project by providing both funding and personnel to help develop its many intricate steps. This is clearly an instance in which the USA mechanism justified itself in practice.

Project Title and Number: Malaysian Family Planning Program
Evaluation (UM 71-3)

Project Life: 6/30/71 through 6/30/75

Total AID Funding: \$108,044

Basic Purpose:

To support the ongoing development of procedures for program evaluation and apply them to the Malaysian family planning program, in order to use the results of these evaluative studies for administrative feedback. Substantive findings and, when feasible, evaluative procedures, are expected to provide useful material for other developing countries' population programs.

I. Background:

Malaysia's National FP Act was approved in 1966. The National Family Planning Board (NFPB), which guides and directs the national FP program, was created in 1966. Field operations started in 1967. The Board is a semi-autonomous body directly under the Prime Minister's Office. The program has been operating mainly in the metropolitan and semi-urban areas. It works jointly with the Ministry of Health in carrying out activities in certain rural areas. NFPB clinics are located in the physical facilities of the MOH.

NFPB personnel are employed full-time. There is considerable discussion, and there has been some movement toward integrating the NFPB with the MOH's MCH program. The program has focused on post-partum women. Over 90% of acceptors are on oral contraceptives.

The University of Michigan's population program staff has been providing technical assistance to Malaysia since 1965.

Work under this grant is designed to take full advantage of the existence on Malaysian FP records of unique, 7-digit national identity card numbers, which makes possible computer matching of FP data with other records, such as vital statistics, on which this number also appears.

Dr. J. Y. Peng, an Assistant Professor, University of Michigan, is in Malaysia as a WHO Advisor to the NFPB, and spends part of his time on this project. Two different UOPI interns have worked on the program in the past.

The project plan has been to "marry up" six different sets of records which are or will be transferred to computer tapes: KAP survey, 1966-67, Program Acceptor records, 1967-71, Missed Appointment records,

1967-71, acceptor follow-up survey, February-April 1969, Birth records, 1967-71, FP Association acceptor records, 1962-67. These records, with the exception of the 1962-67 data, are to be used to produce the following analyses which represent the six sub-project tasks.

1. Numbers, rates and characteristics (age, sex, educational level, etc.) of program acceptors.
2. Comparison of continuation rates from missed appointment records and follow-up survey.
3. Post-acceptance birth rates, calculation of births prevented and program cost per birth prevented, and age parity grid analysis.
4. Comparison of acceptor rates and birth rates with stated desires in KAP survey.
5. Acceptor rates for women, exposed and not exposed to post-partum recruitment.
6. Acceptor rates of pre-program FPA clinics.

II. Project Design:

The design, which is conceptually excellent, has had to be modified somewhat as more detailed examination and processing of masses of data indicated that some of the data was inadequate in various ways for such analyses.

III. Implementation:

The main implementation work is to carry out the six tasks listed above.

Task 1: It has been completed and the data published.

Task 6: This item was dropped during the first year of the sub-project due to inadequacies of the pre-program data.

Task 2: No further work has been done on this task since the first year of the project. Efforts to match Missed Appointment records with defaulters found in the 1969 Acceptor Survey showed up major weaknesses in the Missed Appointment system. It covers only NFPB clients and misses all acceptors from other services. Also, an acceptor might have a Missed Appointment card made for her even though she went to some other clinic and is continuing the use of pills. Thus it has been difficult to compute continuation rates.

Task 3: Phase 1: Acceptor identity card numbers have been cross-matched with birth identity numbers for the first three national program

years (1967-69) to determine fertility patterns among acceptors during the pre and post-acceptance periods. A preliminary report was published in 1973.

Task 3: Phase 2: During FY 74, project officials tried to compare acceptor and non-acceptor fertility in Peninsular Malaysia. They ran into trouble. Miss Dorothy Fernandez, of the Division of Statistics, Department of Statistics, told us that in Task 3 listed above (matching of Birth and Acceptors records) she has had trouble trying to find enough cases of non-acceptors who can be matched with acceptors for similar demographic characteristics (age, parity, etc.). She believes it is a programming error, but the programmer asserts that he is programming correctly and he believes it is a design error. This is an unresolved matter requiring University of Michigan attention. She wants Michigan to send someone to help resolve the problem.

Task 4: This work had to be limited to matching identity card numbers of acceptors with respondents in the rural and part of urban stratum of the 1966-67 KAP Survey of 1966-67. Project officials have prepared a preliminary draft report of some important findings, and are revising it.

Task 5: They ran into trouble here, too. In attempting to establish a suitable sample of hospitals for this aspect of the project study, they found some hospitals' names didn't appear on the birth records. This required some modification of the plan for this part of the work. Nevertheless, work is nearing completion on transcribing birth records.

The problems outlined above in trying to process data for the different tasks cannot be considered a design shortcoming. These types of data processing problems do develop from time to time in this type of project. Michigan and the NFPB staff are showing ingenuity in working around several of these tasks and going ahead with the particular element of the total project, even though somewhat modified. Task 3, as noted above, has occupied time of the Statistics Division for almost a year, off and on, and the problem is still unresolved.

The sub-project has been extended until June, 1975, without additional funding, due to the difficulties encountered in data processing.

Dr. Tan Boon An, Chief of the Evaluation Section, also is developing input/output data to be used as part of the evaluation system. Although this is not listed as part of the sub-project's planned work, Dr. Peng told us that Dr. Simmons from Michigan has assisted on this. Data for the input/output study will be gathered at District Clinics, which will become the basic unit of analysis. He is trying to set up a system of gathering specified data of each type from each clinic on a regular reporting basis.

There are 70 Districts in Peninsular Malaysia. All of them will be covered in this study. This study began only recently and will run until next Spring to gather the basic material for the input/output system

design. We examined some of the material developed in connection with this phase of the evaluation system development. It looked excellent, and should be very useful for evaluation operations, including analysis of cost-effectiveness.

IV. Summary Evaluation:

Despite many difficulties and delays, parts of this sub-project are moving forward. Work done to date on developing input/output evaluation is impressive and should be very useful to the program. Regarding the four tasks of data analysis, this evaluator comes out just about where Penny Farley did when she looked at the project work about a year ago. The study is more practically justified in terms of pointing up mistakes and omissions in established procedures involving data keeping and in getting them corrected. Taking corrective action on such problems will help facilitate future evaluation activity. We would encourage Michigan to consider transferring any saved project time which may be available, because they can't go ahead with some tasks, over to further help, as may be necessary by Tan Boon An in completing successfully his input/output element of a total evaluation program.

V. Relationships with Campus:

An excellent relationship exists between MOH, MNPB officials, and the University of Michigan officials connected with the Malaysia FP projects, including this one. Both Dr. Corsa and Dr. Peng obviously are highly regarded for their high professional competence and ability to work harmoniously with Malaysian officials. Nearly a decade of association between GOM officials and the University of Michigan Population Center have created strong bonds. This situation provides a fine environment for U of M cooperation in technical assistance matters.

VI. Attitude of U. S. Embassy Toward USA Program:

See report on examination of UM-71-6: Utilization of Traditional Birth Attendants in Malaysia.

Project Title and Number: Utilization of Traditional Birth Attendants
in Malaysia (UM 71-6)

Project Life: 6/30/71 to 6/30/75

Estimated Life of Project Cost (AID): \$126,408

Present AID Funding: \$126,408

Basic Purpose:

To evaluate the effectiveness of traditional village midwives as family planning motivators and distributors of oral contraceptives in rural areas under an integrated MCH/Family planning program.

I. Background:

Until the beginning of this sub-project, neither the Malaysian National Family Planning Program nor the Ministry of Health's MCH program reached into remote rural areas. There are about 3,000 traditional birth attendants (kampong bidans) in Malaysia who attend about half of home deliveries in the country. Most of them reside in remote rural villages where they have considerable influence among village women.

This sub-project provides for utilizing 350 such women on a trial basis to recruit acceptors and to resupply them with pills after the initial supply is obtained from a district clinic.

The Malaysian Family Planning Program mainly utilizes oral pills. There is a real need to expand the services to the rural areas. An Integrated Rural MCH/Family Planning Program was created jointly by the MOH and NFPB to carry out FP work in rural areas. Project officials hope that if project activities prove successful, the use of kampong bidans will be expanded throughout rural Malaysia.

Four hypotheses will be studied under this project:

1. Eligible women in rural Malaysia will be better covered and the number of FP acceptors will increase by using kampong bidans to motivate mothers (especially post-partum women) to health centers for their original supply of pills.
2. Continued use of oral pills among such women will be at least at the national average and probably will increase with the kampong bidans handling their resupply. Regular contacts by kampong bidans with these women will reinforce motivation for them to continue using pills regularly.
3. Closer contact will be established and maintained between KB and MOH centers in referring women for ante-natal care.

4. The long term aim is to change the role of kampong bidans from that of traditional birth attendants to the newer role described above.

The project has been extended to a 4th year without additional funding because of a slow start. The total number of recruits has been reduced from 350 to 250 because of tight funding. The KP's earn \$M30/month but with bonuses some earn up to \$M80.

II. Implementation:

To date, 188 KB's were recruited and about 150 are currently actively working in the program. Most of those released were separated because they were unsuitable. The KB's earlier were given 3 weeks training, financed by UNICEF funds, but were not immediately employed by the end of the training period. Under this project some refresher training was conducted.

The KB's have made an impressive record so far. During the past 2 years, while the staff was building up, they concentrated mainly on the post-partum women they had delivered. The average KB delivers about 3 babies a month and has been able to recruit 2 acceptors a month. They have recruited a total of 5,000 acceptors.

A problem which cuts across all FP activity in Malaysia, is the high political sensitivity of the FP program, including this project. The reason for this is that Malaysia's ethnic groups are divided approximately as follows: Malays, 48%; Chinese, 35%; Indians, 10%; Others, 7%. The Malays are determined that the ethnic numerical balance will not change to their disadvantage. Thus the program emphasis is on maternal and child health under the integrated program and on family spacing.

Records to date show that 4,701 of the nearly 4,824 women contacted by the kampong bidans, and who visited the clinics, became acceptors by March, 1974; 68% were still getting pill resupplies. Of the mothers whose babies the kampong bidans helped to deliver, about 20% become acceptors. Many of the latter are in the early stages of family formation and want at least 4 - 5 children.

Other project accomplishments to date are these:

1. In 1972 a Manual for Nurses for the Utilization of Traditional Birth Attendants in FP was produced.
2. Eight different papers and reports on the project have been produced and distributed widely.

3. An international seminar on the utilization of Traditional Birth Attendants in FP was held in Bangkok and Kuala Lumpur during July 19-26, 1974, with the objective of sharing knowledge and experience from the field projects, strengthening and widening the project, exploring the future expansion for the operational program and research. A 300-page book was published recording the conference proceedings. Attending the conference, which was supported by the International Development and Research Center of Canada, were representatives from Thailand, Indonesia, the Philippines and Malaysia. Thailand's Mahidol University and Malaysia's NFPB were co-sponsoring agencies.
4. The government of Malaysia has provided in the regular budget for the operational expenses for the Kampong Bidan program. The UNFPA also is beginning to provide some financial support for the kampong bidan program in Malaysia.

IV. Relations with Campus:

Dr. J. Y. Peng, who is resident in Malaysia as a WHO Advisor, and serves as Michigan's representative on the ground for this project, and his other colleagues from Michigan associated with this project appear to enjoy fine relationships with the host government. Dr. Peng has ready access to and is cordially received by top officials in the MOH and NFPB, and he enjoys equally good working relations with our American Embassy.

V. Contribution toward reducing fertility:

While it is too early to tell the extent of the regional impact this project's findings will have on the other three conference participating governments and, perhaps, other SE Asian government officials who may read some of the reports on the project, including the conference proceedings, its future effects seem promising. Recruitment of about 5,000 acceptors by this small group of influential ladies, a small number of whom we visited in Keddah State, is a modest but impressive accomplishment for the number of kampong bidans involved to date.

VI. Summary evaluation:

Carried out to date in a very well-organized operation, with impressive results. If national politics don't become a stumbling block, it should be possible eventually to extend this program to harness the potential contributions to be made by a majority of the 3,000 traditional birth attendants. The multiplier effect on other SE Asian countries appears to be another good prospect for further project accomplishment.

VII. Attitude of U. S. Embassy Toward the USA Program:

In our conversation with Economics Officer Richard Jackson, he expressed the Embassy view that Malaysia is, by developing world standards, very well off with a per capita GNP of over \$200/year. (He did not have information on the extent to which this was distributed throughout the population.) He stated that the Embassy believes Malaysia is in a position to pay for most services it gets. Where it does need a little help, the Embassy position is that England is the logical donor for them to turn to.

Sub-Project Title and Number: Field Worker Evaluation Project (UNC 72-3)
Project Life: 7/1/72 through 6/30/73
Total AID Funding: \$44,998

Basic Purpose:

To evaluate the relative effectiveness and performance of three different types of family planning field workers under various conditions of employment within Thailand's National Family Planning Program.

I. Background:

The Government of Thailand's (GOT) Family Planning program has been operating since 1967. The number of acceptors rose from 57,000 in 1968 to 450,000 in 1972. When activities of private FP agencies are added, acceptors presently total approximately 1 million. Yet the official National Family Planning Program, under direction of the Ministry of Health (MOH), had hardly any field workers until this sub-project started. It conducted no information and education program and had no incentives or targets.

Prior to the beginning of this sub-project, the MOH had been considering whether to begin employing field workers, since most other successful programs around the world use them. In 1970, Dr. Arnold Kaluzny from UNC/CPC was in Thailand with Rockefeller Foundation support to work with Mahidol University's Institute of Population and Social Affairs. During that time he worked with local counterparts to develop the project design for the Field Worker Evaluation Project. UNC/CPC developed and strengthened linkages with Thai officials through both Dr. Kaluzny and Dr. Robert Burnight, who served as a Rockefeller advisor to the Institute and also as UNC field representative.

The first year of this project, July, 1971 - June, 1972, was funded as a sub-contract between UNC and Mahidol University in Bangkok under AID/csd-2507. First year funding was under Title X and related to the USA sub-project in that the latter took over the funding and carried on the work begun in the first year. During the sub-project's second and final year (July, 1972 - June, 1973) it was funded by a USA grant, through the University of North Carolina's CPC, totalling \$44,998.

The three categories of field workers involved in this sub-project were: "A": full-time, uni-purpose, salaried; "B": full-time, uni-purpose, paid a base salary supplemented by commissions; and "C": multi-purpose volunteer workers employed as part of the NFPP.

During the first year of project activity, 39 field workers were recruited, trained and located in the field. The original plan was to recruit 48. During the year 13 of the original 39 field workers left

the program and no replacements were recruited until October, 1972. Some workers of Types "A" and "B" were selected at random and given motor-cycles in order to measure the effect of improved transportation on performance, i.e. recruiting acceptors. The original plan had a number of variables, including transportation, age of recruits, type of employment ("A", "B" or "C"), married/single, education. Type of employment was considered to be the most important variable.

The second phase of the project involved having field workers recruit new acceptors (the main measurement of their success), making regular home visits, follow-up visits, referrals, resupplying pills. Multi-purpose workers (Type "C") had other related health tasks. Work was carried out in 11 sample areas consisting of villages or clusters of villages. Target population was the group of married women between 15 - 44 years of age living in rural areas of Thailand.

Before field workers began their motivational activities, they carried out a complete enumeration of all households in their areas. This data included number of married women in fertile age range; number using some kind of birth control; age, parity and education of all these women.

A second source of data for project supervisors was monthly activity reports from field workers. These reports showed number of women visited, number who accepted contraception, source of family planning service, and number of previous acceptors who continued to practice family planning. These two data sources were used by project leaders to chart monthly performance of each field worker.

Two surveys were carried out in the sample areas. The "before" survey was completed in April, 1972, and the second a year later. The first survey was concerned mainly with respondents' KAP of family planning and their perception of the field workers. The second survey was completed in April, 1973, and targeted acceptors in the sample areas to which field workers had been assigned. It focused mainly on the continuation of contraception use among women whom the field workers had reported using birth control during the study period.

II. Project Design:

The design was faulty. The number of field workers selected for the study was too small. The time span was too short. The design of the incentive plan for "B" workers had counter-productive aspects. The effect of type of field worker on major variables, family planning knowledge and attitudes, use of services, and contraceptive behavior and fertility, were to be evaluated. It soon became clear that it was not possible to consider each of these areas. Much of the information required for such analysis simply was not available. In the end, the design was modified to concentrate on a single area: contraceptive behavior.

III. Implementation:

The project was funded for only one year in the beginning. This created staff morale problems due to the uncertainty of employment after the first year.

Motorcycles were introduced into the program for use by "A" and "B" workers. The sub-project agreement made no provision, however, for funds for fuel or repair and maintenance of the motorbikes. This caused problems and reduced the effectiveness of the use of the motorbikes, which had been provided by UNICEF.

By the end of the first year of the project, it was determined that project leaders simply weren't staffed to cope with a group of variables (age, use of motorbikes or not, marital status, education). All were dropped except the variable of number of acceptors per field worker.

The incentive payment scheme for "B" workers, which tied the performance and commissions above basic salary (Baht 250/month) in a complicated manner to performance of other workers as a sort of yardstick, proved largely unsatisfactory; thus project leaders believed a really valid and reliable test of the use of "B" type workers had not been conducted.

A major finding of the study was that while "C" workers recruited the most new acceptors, they were lowest in cost effectiveness. Their cost per acceptor was \$5.45 compared with \$3.36 for "B" workers and \$2.75 for "A" workers. During the 12 months of field work, type "A" workers recruited 24.9% of those not practicing FP at the start; type "B" workers recruited 17.7%, and type "C", 31.9%. The project director and his staff analyzed this and other data at the conclusion of the project and concluded that the "C" workers were most effective. Dr. Burnight told us that in reaching that conclusion, no account was taken of the fact that "C" workers cost more than twice as much per acceptor than did "A" workers.

Dr. Winich Asavasena, Director of the MOH's National Family Planning Program, told us his own staff rechecked some of the project findings. They were told by Nurse/Midwives, who supervised the field workers, that type "A" workers were the quickest to learn, most able to follow instructions, and required the least supervision. For these reasons, but mainly because of the cost factor, MOH made the decision to utilize type "A" workers.

Since the project was completed, MOH has recruited and placed in the field more than 200 field workers. MOH also apparently believed they couldn't use type "C" workers regardless of the cost factor because of the difficulty to try to recruit volunteers nation-wide, uncertainty of

their staying on the job since they were "volunteers" (received Baht 100/month), and because they would be difficult to discipline as volunteers.

The host country looked upon this as a UNC/CPC-financed project and limited their contributions to such in-kind items as office space, equipment, staff time and the motorcycles made available to the Government of Thailand by UNICEF.

UNC/CPC technical advice and assistance was provided by Dr. Robert Burnight, resident in Thailand both as a Rockefeller-financed advisor to the MOH and also as UNC/CPC's campus representative. He gave the project strong on-the-ground support, as did Peter J. Donaldson, a former UOPI from UNC, who later joined the Population Council staff in Thailand.

IV. Results:

Despite the fact that this project was poorly designed, beset with problems during most of its too short life, and the project findings were not accepted by the MOH, it clearly has been well worth the funds invested by the USA in it. Both Dr. Kaluzny, UNC/CPC Project Leader and Dr. Burnight noted that the project has led to these beneficial developments, although they were not the project objectives:

1. It gave the Thai Institute for Population and Social Research valuable experience and gave it visibility in the country.
2. Today, as a result, for example, the Bangkok Municipal FP Institute looks to IPSR for technical assistance.
3. The Government of Thailand has put money into the Institute.
4. Most important, as a result of the project, the MOH decided to go ahead with the permanent use of field workers and has employed more than 200 since the project's completion.

As a bonus for the USA program, no USA funds were spent on UNC/CPC staff to assist in carrying out the project. No part of Dr. Burnight's or Dr. Donaldson's costs were charged to the sub-project.

V. Attitude of USAID toward USA program:

Mr. Roger Ernst, with whom we spent several hours discussing the sub-project and the USA project, believes the USA project pattern may fit in with his present plans to shift virtually all contracting for technical services in the next year or two over to the Government of Thailand. Mr. Ernst sees the USA project as one of several useful

instruments which may be employed in helping to make this changeover to a greater involvement of the GOT in managing its own affairs, with some continuing USAID financial support and final decision authority.

VI. Summary Evaluation:

While this sub-project was poorly designed and had more than the usual number of problems during the operational stage, it had a number of important spin-off effects (see section IV above) which are well worth all the funds invested in the project. PHA/POP's experience with this project suggests the need for more careful review at UNC and AID/W headquarters during the approval stage. The original proposal (not then under USA) should not have gotten through PHA/POP without showing up obvious weaknesses.

VII. Officials contacted during project evaluation:

Dr. Winich Asavasena, National Family Planning Program Director,
Department of MCH in MOH.

Dr. Boonlert Leoprapai, Director, Institute for Population and
Social Research, Mahidol University

Dr. Robert Burnight, WHO and UNC Representative

Dr. Gordon Donaldson, Population Council Office, Thailand
and former UOPI from UNC/CPC

Dr. Van Der Hoof, Chief, Public Health Division, USAID/Thailand

Mr. Roger Ernst, Director, USAID/Thailand

Mr. Scott Edmonds, Population Officer, Division of PH, USAID/Thailand

Mr. Gerard Bowers, Assistant Population Officer, Division of PH,
USAID/Thailand

Project Title and Number: Epidemiological Studies of Family Building and Family Health in Taiwan (UNC 73-7)

Project Life: 6/1/73 through 4/30/75

Project Leader: Dr. Abdel Omran

Project Director: Dr. K. Y. Fan, Director, Taiwan Provincial MCH Institute

Estimated Life of Project Cost (AID): \$98,283
Present AID funding: \$98,283

Basic Purpose:

One part of the project is to complete a WHO-sponsored study of the relationship between family building and family health. A second part of the project is to study IQ's of children in relation to family size, birth order, maternal age, and social class, as well as to make a detailed nutrition survey among children under two years of age.

I. Background:

Groundwork for this project started in 1971 as part of a planned WHO study. WHO withdrew in 1972 when all UN funding was withdrawn from Taiwan at the time of mainland China's admission to the UN.

In recent years there has been a number of studies, mostly in Western countries with low mortality and moderate fertility, which have indicated there are damaging effects on the health of mothers and children associated with large family size, multi-parity, short interpregnancy intervals, and too young or too old maternal ages. Little information is available on this subject from less developed countries. The project, which seeks to determine if the same relationship exists in Taiwan, has two main thrusts:

1. To attempt, through collection of Taiwan data, to convince the medical community of the benefits to maternal health of family planning, and to help persuade them to include advice on FP in everyday practice.
2. Use data to convince concerned couples and community leaders that it is desirable that children be limited in numbers, pregnancies adequately spaced, and that optimal maternal age be taken into account in pregnancy planning.

Immediate objectives of the studies are to examine in Taiwan:

1. **Relationship between health and family size.** The studies will particularly try to determine impact of family size, number and timing of pregnancies, and maternal age on the health of mothers and children.
2. **Relationship between childhood mortality and reproductive patterns.** The studies will try to assess the influence on reproduction of high childhood mortality experienced by people either in their own generation or in their children's generation.

Evaluation Contacts:

Dr. Abdel Omran, UNC/CPC, Epidemiologist
Dr. K. Y. Fan, Director, Taiwan's Institute of MCH
Mr. F. T. Hung, Chief, IMCH Health Education Section
Mr. Sam Keane, Regional Director, POP Council
Dr. George Cernada, POP Council Representative

II. Project Design:

The project is well designed. A number of the research instruments were pre-tested in other countries as well as Taiwan, and the research design was critically reviewed by international authorities convened by WHO. The design work was done by Dr. Omran and associates at UNC, in consultation with WHO and ROC officials. Problems related to implementation of the research design were encountered, but these do not appear to reflect on the design itself (see Implementation section below).

Discussions with Dr. Fan and Mr. Hung indicated that Taiwanese officials were deeply involved in technical aspects of the design. There was established a local WHO committee in Taiwan to advise on technical matters, but only during the operational stages. One Committee contribution to date has been the suggestion by Professor C. C. Hsu, which was accepted, to increase the IQ sample of 8-14 year old school children to 20,000.

III. Implementation:

Phase I data collection, with WHO financing, began in April, 1971. This phase covered all aspects except the IQ testing and nutritional studies. Phase I data collection was completed by April, 1973, put on tapes during the next 6 months by Institute staff under the immediate direction of Dr. Fan and Mr. Hung, and forwarded to UNC/CPC in September, 1973, about 3 months after AID/W approved this sub-project. Due to "loss" of the tape at UNC/CPC, Dr. Fan was requested to forward copies of the 48,000 cards which recorded basic data which had gone onto the tape. The cards were sent in January, 1974. Dr. Omran is now "cleaning up" the new tape and processing the data at Chapel Hill.

The IMCH staff recruited interviewers, conducted a special week-long training program for them (all college graduates), then sent them out to interview mothers of children given IQ tests in the schools. This interview work is now underway.

IQ testing is done by regular public school teachers, under guidance of IMCH staff. This phase seems to be going very nicely. All IQ studies and related interviews of mothers will be completed by December, 1974. Another 6 months will be required to get printouts back from UNC/CPC. The Nutrition study and diet study measurements also will be finished by the end of December, 1974. Printouts should be back for analysis by June, 1975. Dr. Fan believes the study will be completed 6 months later: December, 1975.

The Institute Director and his staff appear to be generally very well organized and quite experienced in establishing and conducting successfully programs in the MCH field. The IMCH is well-equipped and the sub-project budget seems adequate. The Director and his key assistant on this sub-project are energetic and highly motivated.

IV. Problems:

1. Three months after mailing the tape on part I data, described above, IMCH received a cable from Dr. Omran saying the tape was destroyed. He requested that a duplicate or, preferably, a set of the cards be sent along. There was no explanation of how the tape was destroyed. At a cost of approximately \$1,000 a duplicate set of cards was made and forwarded in January, 1974. Recently Dr. Omran told the evaluators that the data on the tape was jumbled, had many errors, and was unuseable. This information on poor processing quality of work by the IMCH staff was never given to Dr. Fan. We believe it should have been, so he could identify within his staff the cause of this breakdown in work quality and remedy it through retraining or other appropriate action.
2. There appears to be a problem related to staff understanding of the analytical concepts and methods built into the sub-project design. This is illustrated by our observation of field interviews conducted by the IMCH interviewers with the mother of a child given the IQ test. In the battery of questions asked the village mother, including "father's education" and "father's occupation." The interviewer did not, in this case, record or make an adjustment for the fact that the tested child's first father, who had a primary education, died when the child was less than 1 year old. The step-father, with whom the boy had spent most of his years, had a college education and a different occupation. The field worker recorded only facts about the first father. When we discussed this matter later with Dr. Fan and Mr. Hung, they agreed this may be a weakness in administration and some retraining may have to be done. They almost certainly will not go back to do re-interviews, however, to determine how many other similar cases are distorting the data.
3. The UNC/CPC chief investigator for the sub-project has not visited Taiwan since August, 1971, according to Dr. Fan. This work was still under WHO sponsorship at that time. Our

evaluation indicates that visits by him to Taiwan at least twice a year since the program was approved would have been valuable, especially in terms of reviewing problems of the type noted above and perhaps providing some on-the-job training related to the data analysis tasks assigned under the project to Dr. Fan and his staff.

4. Extension of the project time for six months will be required, Dr. Fan reports. This is due mainly to difficulties described above relating to "cleaning up" and processing the tape data.

V. Transfer Value of Project:

Project findings, particularly regarding Part I of the study, should be useful in persuading concerned couples, community leaders, and medical doctors of the benefits of FP.

VI. Summary Evaluation:

The project was well designed by a highly professional group and, despite operational difficulties it has encountered, should provide some very useful results, not only for Taiwan but for other countries as well. We recommend that Dr. Omran visit the IMCH at the earliest possible date to review the total situation with Dr. Fan and staff, discuss problems of the type noted above, and help bring the project to a successful conclusion.

Project Title and Number: **Feasibility of Distributing Contraceptive Supplies to Encourage Family Planning Practices--Taiwan (JHU 73-7)**

Project Life: **6/30/73 to 6/29/76**

Estimated Life of Project Cost (AID): **\$149,710**

Present AID funding: **\$149,710**

Basic Purpose:

To test the hypothesis that increasing the availability of contraceptive supplies will induce greater numbers of fertile married women to use contraceptives and thereby establish a continuous practice of fertility regulation, and to study the epidemiology of high risk births for family planning program guidance purposes.

I. Background:

Under this project, free contraceptives (pills and condoms) are provided to recently delivered women in 12 selected townships in Taiwan to test the hypothesis that most women to whom supplies are made available will start using them. An experimental delivery system using family planning field workers is being used to distribute contraceptives to women in the test villages, with the hope of achieving a breakthrough among women who are not sufficiently motivated to seek out contraceptive services themselves.

About 15,000 women, who registered live births during the 12-month period prior to the start of the project, constitute the study population. A random sample of about 2,500 women was used for a baseline study, completed by April, 1974 in 12 study and 12 control townships. There will be an "after" KAP study for the same townships at the end of the project, to permit making "before" and "after" comparisons.

Many of the field workers assigned to the project are experienced in FP work. After a special training course for the project, field workers were assigned to specified test townships (1 township may contain a dozen or more villages) to contact women who have had babies born during the 1974 calendar year. The field workers will provide the mothers with information about family planning, inquire as to their interests in participating in FP and accepting contraceptives. Where women indicate positive interest, they are left a 6-months supply of pills/condoms. The field workers are also responsible for two follow-up contacts with the mothers at 6-month intervals, and reordering of supplies for acceptors. Field workers will continue the normal FP educational program in control villages, but will not give out supplies and will not resupply. This type of field work was going on in many parts of Taiwan prior to the inception of this project.

II. Project Design:

The design is, with the exceptions noted below, well done. It was done by P. T. Liu of Johns Hopkins University Population Center, in collaboration with key FP officials in Taiwan. If there is any design fault, it is in making the assumption that the ROC would continue at the project's end to give free contraceptives to mothers of new babies, and would continue to provide initial and follow-up resupplies. The Taiwan Government does not appear to be committed to give free supplies at the end of the program, although they seem to be prepared to extend the program by providing more field workers to motivate

The project design did provide adequately for logistic support and other administrative arrangements.

III. Implementation:

Taiwan must already have one of the developing world's most effective FP programs. Almost all ingredients for successful program operation are present in Taiwan: high literacy rate, excellent transportation and communications, FP field workers who are well trained and highly motivated, and the ROC is financially capable of pretty much paying its own way. Much of this is reflected in the operations of this project. It is extremely well organized and managed. Well-planned training programs are carried out for already experienced field workers. Supervisors are diligently spot-checking interviews made by their field workers. The supply system works very well, and where motorbikes aren't available, field workers use bicycles.

The reporting system is excellent. Report data seems to be used and, where appropriate, fed back into the system. Good information material is developed and fed into the project system for distribution by field workers and through other means, such as posters and radio and TV programs and newspaper stories.

The project is on schedule and seems likely to be completed by the target date, June 30, 1976.

The ROC is making contributions in the form of staff, office and clinic space, training, supply services, and some transportation and publicity materials.

The administrative arrangements are excellent for handling of funds advanced by JHU to the JCRR. The latter releases funds to the Project Director, who must follow all JCRR administrative regulations and procedures. JCRR performs its own continuing audits.

Problems:

1. A problem relating both to design and implementation is stressed by field workers. The project design calls for focusing the study for free contraceptives on post-partum women only, and singling them out. By contrast, other women in each village involved in the study must pay, and must go get their own contraceptives. This creates several problems. One is that the cost of contacting only these selected and favored mothers takes much more time for the field workers to contact. Their usual procedure for the regular FP field activity--outside the project--is simply to go through a village and call on each home in non-project areas. Field workers complain that this system discriminates against non-project acceptors or potential acceptors, and it is too time consuming. They'd like to drop the post-partum requirement and, instead, call on all married women in each test village who are not now practicing FP.

Project Director Dr. C. H. Yen points out that it is too late to consider such a change now, since part one of the base-line study was completed last April and would no longer be valid if such a change were made. It is not clearly established that the post-partum aspect is a design fault. Dr. Yen believes there is merit in turning the spotlight on this high-risk group of young post-partum women. This is illustrated by the fact that the 1973 island-wide KAP survey indicated that while 68% of all fertile women in Taiwan practice contraception, only about 20% of the project group did at the project's beginning, and 48% of them want no more children. 89% of these women in the project test group who have been visited now have pills and condoms at hand. We would not recommend changing the project design.

2. As indicated in Section II above, while this study involves giving free contraceptives to this high risk group, the Taiwan government may be unwilling to give them free after conclusion of the project. Since this project will not tell what post-partum women would do if they had to pay, even a highly subsidized price (\$NT 5/course) for pills, the project findings have less meaning in these circumstances. The evaluator believes this is a design shortcoming.

IV. Relations with Campus

Fine relations exist between the Taiwan Government FP officials and JHU staff. We obtained the impression that for any future projects--and the Taiwan FP officials would like to work on other FP problems with JHU--they would appreciate being brought in more fully as participants during the project design stage, rather than having the design done and submitted to them for review and comment.

V. Contribution toward reducing fertility:

The project study seems to have tapped a "hard-core" bonanza: only 20% of women using contraception at the time the survey began compared with a reported 68% of fertile women Taiwan-wide using some form of contraception. Even though the Taiwan Government won't give free contraceptives after the project's completion, the project seems certain to yield two results, either of which almost certainly will help encourage higher continuation rates by acceptors and higher future acceptor rates than pre-project:

1. The Government seems very likely to abolish soon the requirement that before an acceptor may obtain pills, she must first have a Doctor approve her request. Under the project operations, family planning workers were permitted, after completing a comprehensive interview form, to give pills. The Doctor signed an approval slip after the fact. Field workers are following up to help insure detecting early any possible adverse side effects. Experience under the project already has convinced FP officials that field workers should be authorized to give out pills. FP officials believe many otherwise potential acceptors don't begin using pills because they don't want to go to a clinic and request a prescription approval for pills, which they must then take to a drugstore.
2. At the project's end, the Government is likely to institute a nation-wide program (in effect only in the 12 project test villages now) of having FP field workers bring pills to potential acceptors and resupply them.

VI. Summary Evaluation:

This project is quite well-designed. It is also managed with high effectiveness. Results to date in terms of getting new acceptors is remarkable. It is too early to observe how high the continuation rates will be. The project is certain to change several basic patterns in the procedures under the present national FP program. These results alone, if they take place, should justify the cost of the project many times over.

VII. Attitude of U. S. Embassy toward the USA Program:

Mr. James Johnson, First Secretary in the Economics Section, and AID Affairs Officer, stated the Embassy view that Taiwan, as an AID "graduate country", should be able to pay its own way in the future for any technical assistance it receives. While the Embassy staff would not stand in the way of a request by the Taiwan Government for assistance under the USA program, they would not encourage the FP officials to seek such help. With a per capita income of around \$500 and a very high level of management competence, the Taiwan Government must rank low in priority in terms of claims on scarce PHA/POP funds, but high in terms of a place where certain types of research work can be done.

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

Life of Project:
From FY 72 to FY _____
Total U. S. Funding _____
Date Prepared: September, 1971

Project Title & Number: University Services Agreement *

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Utilizing university faculty inter-disciplinary resources, help strengthen capabilities of LDC's to solve problems impeding progress in their POP/FP programs and to build institutions, in order to help reduce rate of population growth in nation.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1. AID-priority LDC's carrying out activities to solve effectively problems in POP/FP field and key institutions established and functioning effectively. 2. Population growth rates dropping 	<ol style="list-style-type: none"> 1. Increased number LDC government agencies' and private organizations' staffs are observed and reported by Embassies/USAID's to be doing effective work, with adequate budgets and without donor assistance. 2. Census data. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. LDC Governments seriously interested in developing effective POP/FP programs 2. LDC Government wants assistance from university. 3. Identification of LDC strategy and priorities. 4. USAID/Embassy concur that university should assist on specific projects under USA project.
<p>Project Purpose:</p> <p>To mobilize university's campus-wide, inter-disciplinary resources and utilize them to help LDC governments and private agencies in POP/FP field to solve key problems and build institutions.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. AID-priority LDC's carrying out, without donor help and with adequate funds and trained staff, problem solving work in satisfactory manner, utilizing institutions universities helped establish. 	<ol style="list-style-type: none"> 1. Same as 1 above. 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Same as 1 above. 2. Government and/or private agencies determined to carry forward work after university withdraws help, and will provide regularly adequate funds for problem solving work and support of institutions being established.
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Each USA university developed, maintains and utilizes in-house staff capability readily available to LDC's in AID-priority countries to help LDC's solve short-term problems and develop institutions in the POP/FP sector. 2. Sub-project proposals developed in accordance with guidelines and approved. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. Sub-project proposals approved, carried out on schedule and stated sub-project planned results achieved, with strong faculty support and LDC official or private group participation. 2. University list of faculty/staff members with pertinent qualifications who have indicated interest in, availability to serve on USA sub-projects or perform core functions. 	<ol style="list-style-type: none"> 1. Sub-projects evaluated. Project progress reports examined. 2. University "inventory" of faculty resources lists received, reviewed. 	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> 1. AID funds will be available to finance worth sub-projects proposed. 2. LDC's will request the assistance from USA universities. 3. Universities will receive fully adequate guidance from PHA Bureau on development and conduct of sub-projects.
<p>Inputs:</p> <p>See Narrative Report.</p>	<p>Implementation Target (Type and Quantity)</p>	<p>* Project Numbers: University of Michigan: 932-11-570-923 Johns Hopkins University: 931-11-570-916 University North Carolina/CPC: 931-11-570-956</p>	<p>Assumptions for providing inputs:</p>

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

Life of Project: _____
 From FY 1971 to FY _____
 Total U. S. Funding _____
 Date Prepared: _____

Project Title & Number: University Services Agreement

OUTPUTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>3. There exists within each USA university core staff with effective organizational and procedural arrangements project coordination, including logistic support, accounting, reporting, other backstopping, and evaluation, in order to facilitate all aspects of management by the university of the USA project.</p>	<p>1. Able, experienced core director and Administrative Officer, supported by staff numbers related to workload. 2. Accurate, current job descriptions. 3. Accounts reflect accurately all necessary data on current basis; good accounting/disbursing arrangements for advancing funds to sub-project manager. 4. Reports from core & sub-projects</p>	<p>1. On-site examination 2. Review by auditors, monitors, evaluators. 3. Examination of reports files. 4. Confirmation by project managers and chief investigators that backstopping fully adequate. Examination of action logs in core offices.</p>	
	<p>are useful, submitted on schedule. 5. Independent sub-project audits. 6. Written procedures for main core, sub-project functions of sub-project development, review, backstopping.</p>		
<p>Outputs: 4. Linkages 5. LDC's utilized or, in case of on-going sub-projects, firmly plan to utilize useful results of sub-projects.</p>	<p>1. Continuing relations between university & LDC public, private agencies after sub-project completed. 2. Exchange visits and joint conferences, seminars between university and LDC officials. 1. Useful sub-project results are beneficially incorporated into the LDC POP/FP program. For on-going</p>	<p>1. University asked to assist LDC, utilizing other donor support or, if LDC becomes "graduate", with its own funds. 2. Observation. Reports. 1. Observed. Evaluation reports. 2. Funds budgeted, staff assigned to incorporate findings into program</p>	<p>Assumptions for achieving outputs: 1. University and LDC have a strong and continuing interest in POP/FP sector programs. 1. Sub-project is well-designed, addresses important POP/FP needs. 2. LDC seriously interested in improving</p>
<p>6. Sub-project created region-wide impact; produced results being utilized or planned to be utilized in one or more other countries in region. 7. Specific problem(s) solved as result of sub-project work. Needed institutions built, strengthened.</p>	<p>sub-projects: LDC officials made firm statements of intention to utilize useful sub-project results in program 1. Regional conferences held regarding project results. Officials from other countries visited sub-project, read reports of results, asked for detailed information on project. Previously identified obstacles to POP/FP progress no longer exist or ameliorated.</p>	<p>1. Other countries budget funds for this kind of work in their programs. 2. Observation. Reports from USAID or Embassy. 1. Observed. Evaluation reports. 2. Observed and reported improved work progress in sub-projects; a problem.</p>	<p>program and has financial capability and staff to do it. 1. Other LDC's in region have active POP/FP programs, or plan to start, and want to strengthen them. Have resources to do so, perhaps with some help. 1. LDC seriously interested.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY 1971 to FY _____
Total U. S. Funding _____
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Project Title & Number: University Services Agreement

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>8. Core work and sub-projects are cost-effective.</p>	<p>1. Discrete elements of core and sub-projects identified and costs to produce each output determined. 2. Accounting data organized to reflect main discrete work element costs. 3. Inputs/outputs for discrete elements meaningfully comparing three universities and among similar sub-projects within one university.</p>	<p>1. Observation, review of reports, including evaluations.</p>	<p>1. Cost to develop, maintain and process cost-effectiveness data is less than measurable benefits. 2. It is realistic to identify measurable, comparable, discrete elements in core and sub-project work. 3. Universities willing make necessary accounting, reporting charges.</p>
<p>9. LDC's developed their own strategies and program priorities.</p> <p>10. AID strategy, priorities developed, distributed.</p>	<p>1. LDC Government or private agencies prepared written statements of their strategies, priorities. In absence of written statements, key officials articulated them. 2. Universities, USAID's, Embassies indicate in communications with AID that they have and clearly understand AID POP/FP strategy, priorities.</p>	<p>1. University, USAID, Embassy officials examined LDC's written statements; they discussed with authorized officials LDC's strategy, priorities. 2. LDC's priorities reflected in their program plans, work, budgets. 3. Substantial majority of sub-project proposals are approved. 4. Written documents in hands of all AID, University, USAID, Embassy officials who need them.</p>	<p>LDC seriously plans to carry out strategy, plans, and has capability to do so, perhaps with some help. 1. Universities/LDC's prepared follow clear-cut guidance on sub-project development.</p>
<p>11. Fully adequate organizational and procedural arrangements exist within PHA/POP to facilitate all aspects of management of USA project</p>	<p>2. Sub-project proposals submitted reflect university/LDC understanding of AID's guidelines for sub-projects. 1. Written procedures issued and followed by staff. Each employee understands his role. 2. Sub-project requests processed promptly. University staff knows who in PHA/POP to contact for each type of problem.</p>	<p>1. Observation. Discussions with staff. Evaluation reports.</p>	<p>2. PHA's sub-project development guidelines not in conflict with LDC priorities where they exist.</p>
<p>12. LDC personnel trained</p>	<p>1. Foreign advisory & operational staff replaced with trained LDC personnel. 2. LDC counterpart organization operating effectively after sub-project completion 3. All important tasks in LDC agency being carried out effectively without outside help.</p>	<p>1. Observation</p>	<p>LDC prepared to provide funds for permanent positions for trained staff and to fully utilize their advanced training.</p>

Attachment