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OF

RESOURCES FOR PROJECT MANAGEMENT ASSISTANCE

DIRECTORY
OF
RESOURCES FOR PROJECT MANAGEMENT ASSISTANCE

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FOREWORD

Sound project management is important in the efforts of the less developed countries to achieve equitable economic and social progress. This Directory describes resources available in the United States to help meet that need.

For purposes of the Directory, a "project" is defined as a set of activities with a specific development objective, definite beginning and ending points, and an allocation of resources. The project cycle includes identification, feasibility determination, formulation, appraisal, implementation, and evaluation.

The Directory emphasizes management capabilities (as distinct from other technical capabilities) that can achieve results from public and private projects in key sectors, including agriculture, education, and health, as well as projects in industry and infrastructure. The resources described are those for assistance in planning and implementing development projects: training, advisory, and research services.

We wish to emphasize that the Directory is not a complete compendium of U.S. firms and organizations with strong capabilities for project management work in the less developed countries. The diversity of U.S. institutions and corresponding problems of identifying relevant capabilities have inevitably resulted in the omission of scores of well-qualified organizations. Users should consider this Directory as only one source of such information.

Inclusion in the Directory reflects a number of considerations, but primarily how much emphasis an organization places on project management among its capabilities and how relevant its experience is to AID's current program interests. Institutions and firms exclusively or mainly concerned with other activities--for example, construction, the sale of computer programs, or the technological content of feasibility studies--are not included. Inclusion in the Directory does not imply AID recommendation of an organization for a particular assignment.

The descriptions in the Directory are based on material supplied by the organizations covered, edited for uniformity and space requirements.

We trust that the Directory will prove useful to those in developing countries, AID, and other development assistance agencies who are concerned with the availability of project management resources. We also hope that the Directory will promote cooperation among organizations in the project management field.

Information from users as to the content or usefulness of the Directory and from additional organizations with capabilities in

development project management would be appreciated. Such feedback will facilitate consideration of the possible value of supplements or periodic updating of the Directory. Please address correspondence to:

Director, Office of Development Administration
Technical Assistance Bureau
Agency for International Development
Washington, D.C. 20523

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CLASSIFICATION OF ORGANIZATIONS

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Academy for Educational Development, Inc.	Action Programs International	Agribusiness Associates	Agricultural Cooperative Development Int'l.	Allen, Louis A., Associates, Inc.	American Assoc. of Port Authorities, Inc., The	American Graduate School of International Management	American Hospital Association	American Institutes for Research	American Public Health Association
TYPE										
Advisory	x	x	x	x	x	x	x	x	x	x
Training and Education	x	x	x	x	x	x	x	x	x	x
Research	x				x	x			x	
FIELD										
Agriculture, Agribusiness			x	x						
Banking, Credit				x						
Computer							x			
Construction						x	x			
Cooperatives				x						
Development Administration		x				x	x			x
Education	x				x		x		x	x
Engineering										
Environmental Plans										
Evaluation	x	x					x	x	x	
Feasibility Studies	x			x				x	x	
Financial Management		x		x	x		x			
Fisheries, Aquaculture										
Health, Nutrition					x		x	x	x	
Industry		x					x			
Information	x	x				x	x			
Manpower, Labor	x	x		x	x	x	x	x		
Marketing		x	x	x						
Management Aids (CPM, PERT)										
Operations		x				x	x			x
Organization		x		x	x	x	x			
Planning Analyses, Studies	x	x	x	x			x	x	x	x
Population Planning								x	x	
Project Implementation		x								x
Regional, Rural, Urban Dev.		x								
Reporting										
Systems			x							x
Transportation		x	x			x				
Water, Utilities, Power										

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	American Technical Assistance Corp., The	Auburn U.--International Center for Aquaculture	Battelle Memorial Institute	Bechtel Corporation	Berger, Louis, International, Inc.	Booz, Allen & Hamilton, Inc.	Brown & Root, Inc.	California, U. of, L.A.-- School of Public Health	Checchi and Company	Clapp and Mayne, Inc.
TYPE										
Advisory	x	x	x	x	x	x	x	x	x	x
Training and Education		x	x		x	x		x	x	x
Research		x				x		x	x	x
FIELD										
Agriculture, Agribusiness					x				x	x
Banking, Credit										
Computer				x	x					x
Construction		x		x		x	x			
Cooperatives								x		
Development Administration				x						
Education			x							x
Engineering				x	x		x			
Environmental Plans							x			
Evaluation		x				x		x		x
Feasibility Studies		x	x				x	x		x
Financial Management				x		x		x		x
Fisheries, Aquaculture		x								
Health, Nutrition								x		x
Industry			x		x	x	x		x	x
Information						x				x
Manpower, Labor				x	x	x			x	x
Marketing			x					x		
Management Aids (CPM, PERT)				x		x				
Operations				x		x				x
Organization					x	x				x
Planning Analyses, Studies	x	x	x		x	x	x		x	x
Population Planning										x
Project Implementation										
Regional, Rural, Urban Dev.										x
Reporting				x		x				
Systems	x					x				x
Transportation					x	x			x	
Water, Utilities, Power					x	x	x		x	

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Community Systems Foundation	Connecticut, U. of--Develop- ment Admin. Training Prog.	Cornell U.--Grad. School of Business & Public Admin.	Gresap, McCormick and Paget, Inc.	Day & Zimmerman, Inc.	DBA Systems, Inc.	Decision Sciences Corporation	Decision Technology Corporation	Denver, U. of-- Denver Research Institute	Development Alternatives, Inc.
	TYPE									
Advisory	x	x	x	x	x	x	x	x	x	x
Training and Education	x	x	x		x		x	x	x	x
Research	x		x				x	x	x	x
FIELD										
Agriculture, Agribusiness	x									x
Banking, Credit					x					
Computer				x		x	x	x		x
Construction					x	x				
Cooperatives										
Development Administration		x	x		x					
Education	x	x	x	x			x		x	
Engineering	x				x	x			x	
Environmental Plans										
Evaluation	x	x			x		x		x	
Feasibility Studies			x	x						
Financial Management		x	x					x	x	x
Fisheries, Aquaculture										
Health, Nutrition	x		x	x						
Industry				x	x				x	
Information	x			x	x		x		x	x
Manpower, Labor		x		x	x					
Marketing			x	x	x		x			
Management Aids (GPM, PERT)		x				x			x	
Operations					x		x		x	
Organization		x	x	x	x		x	x	x	
Planning Analyses, Studies	x	x	x	x	x	x	x	x	x	
Population Planning	x									
Project Implementation		x		x			x	x		
Regional, Rural, Urban Dev.		x	x				x			x
Reporting						x	x			
Systems				x				x		x
Transportation				x	x					
Water, Utilities, Power	x				x					

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Development and Resources Corporation Development Economics Group Dialogue Systems, Inc. Doxiadis Associates Envirodyne Planalog, Inc. Executive Management Service, Inc. Exotech Systems, Inc. Experience, Incorporated Florida State U.--Center for Educ. Technology Foundation for Cooperative Housing									
	Development and Resources Corporation	Development Economics Group	Dialogue Systems, Inc.	Doxiadis Associates	Envirodyne Planalog, Inc.	Executive Management Service, Inc.	Exotech Systems, Inc.	Experience, Incorporated	Florida State U.--Center for Educ. Technology	Foundation for Cooperative Housing
TYPE										
Advisory	x	x	x	x	x	x	x	x	x	x
Training and Education	x	x	x			x	x	x	x	x
Research			x	x	x	x	x	x	x	
FIELD										
Agriculture, Agribusiness	x	x		x			x	x		
Banking, Credit							x			x
Computer						x				
Construction	x			x		x				x
Cooperatives								x		x
Development Administration	x	x						x		
Education			x	x			x		x	
Engineering	x			x						
Environmental Plans	x	x		x				x		
Evaluation	x		x			x	x	x		
Feasibility Studies				x	x		x	x		x
Financial Management	x				x	x	x	x		
Fisheries, Aquaculture										
Health, Nutrition								x		
Industry				x	x	x	x			
Information		x							x	
Manpower, Labor		x	x			x	x			
Marketing				x		x		x		
Management Aids (CPM, PERT)					x					
Operations										
Organization		x	x	x		x	x	x	x	
Planning Analyses, Studies	x	x	x	x	x	x	x	x	x	x
Population Planning										
Project Implementation		x	x				x	x		
Regional, Rural, Urban Dev.	x	x	x	x			x			
Reporting										
Systems		x			x	x	x		x	
Transportation		x		x		x	x	x		
Water, Utilities, Power	x	x		x						

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	General Research Corporation	Gilbert Commonwealth International, Inc.	Governmental Affairs Institute	Harvard U.--Grad. School of Business Administration	Harvard U.--Institute for International Development	Howard University	IIT Research Institute	Illinois, U. of--Office of Int'l. Programs & Studies	Institute of International Education	Institute of Public Administration
TYPE										
Advisory	X	X	X		X	X	X	X		X
Training and Education	X	X	X	X	X	X	X	X	X	X
Research	X			X	X	X	X			X
FIELD										
Agriculture, Agribusiness	X		X	X				X		X
Banking, Credit			X							
Computer	X									
Construction		X				X				
Cooperatives	X									
Development Administration			X							X
Education	X			X	X	X		X	X	
Engineering	X	X					X			
Environmental Plans		X								X
Evaluation	X								X	
Feasibility Studies	X	X		X						
Financial Management		X		X			X			X
Fisheries, Aquaculture										
Health, Nutrition	X				X	X				X
Industry	X	X					X			
Information	X									
Manpower, Labor									X	X
Marketing				X						
Management Aids (CPM, PERT)										
Operations										
Organization							X			X
Planning Analyses, Studies	X	X	X	X	X	X	X	X		X
Population Planning	X		X			X				X
Project Implementation	X					X				
Regional, Rural, Urban Dev.	X				X					X
Reporting										
Systems	X		X	X						
Transportation										X
Water, Utilities, Power		X								

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Intech, Inc.	Johns Hopkins U.--Dept. of International Health	Kearney, A. T., Inc.	Little, Arthur D., Inc.	Little, Arthur D., Management Education Institute	Lookheed Aircraft International, Inc.	McDonnell Douglas Automation Company	McKinsey & Company, Inc.	Macro Systems, Inc.	Management Sciences for Health
TYPE										
Advisory	x		x	x			x	x	x	
Training and Education	x	x	x	x	x	x	x		x	x
Research		x	x	x	x					
FIELD										
Agriculture, Agribusiness	x		x	x	x			x		
Banking, Credit								x		
Computer	x		x			x	x	x		x
Construction						x	x			
Cooperatives										
Development Administration				x					x	
Education	x	x	x	x	x					
Engineering			x	x		x			x	
Environmental Plans										
Evaluation		x	x	x		x		x	x	
Feasibility Studies		x	x	x		x			x	x
Financial Management			x	x	x	x	x		x	
Fisheries, Aquaculture										
Health, Nutrition	x	x	x	x		x			x	x
Industry			x	x	x	x	x	x		
Information	x		x					x	x	x
Manpower, Labor		x	x	x				x		
Marketing			x	x	x			x		
Management Aids (CPM, PERT)			x				x			
Operations			x					x	x	
Organization			x	x	x			x	x	x
Planning Analyses, Studies	x	x	x	x		x	x	x		
Population Planning		x								x
Project Implementation							x			
Regional, Rural, Urban Dev.	x	x		x					x	
Reporting										
Systems	x						x	x	x	x
Transportation			x			x	x	x		
Water, Utilities, Power							x			

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Meharry Medical College	Michigan, U. of--Center for Research on Econ. Dev.	Michigan, U. of--School of Public Health	Mitre Corporation, The	Nathan, Robert R., Associates, Inc.	National Academy of Sciences	--Nat'l Research Council	New England Center for Continuing Education	NTL Inst. for Applied Behavioral Science	Parsons, The Ralph M. Company	Pittsburgh, U. of--Grad. School of Public and International Affairs
TYPE											
Advisory	x	x		x	x			x	x	x	
Training and Education	x	x		x	x			x	x	x	
Research	x	x	x	x	x			x	x	x	x
FIELD											
Agriculture, Agribusiness											
Banking, Credit					x	x	x			x	
Computer											
Construction											
Cooperatives										x	
Development Administration				x				x			x
Education	x	x	x	x	x			x	x		x
Engineering				x	x						
Environmental Plans				x	x					x	
Evaluation				x		x				x	
Feasibility Studies		x		x	x						
Financial Management					x					x	
Fisheries, Aquaculture		x			x					x	
Health, Nutrition	x	x	x		x						
Industry		x			x						
Information					x	x				x	
Manpower, Labor		x			x					x	
Marketing					x						
Management Aids (CPM, PERT)					x						
Operations										x	
Organization										x	
Planning Analyses, Studies		x				x	x	x			
Population Planning	x		x	x	x	x				x	
Project Implementation											
Regional, Rural, Urban Dev.		x			x						
Reporting											
Systems				x						x	
Transportation				x	x					x	
Water, Utilities, Power				x	x					x	

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Planning & Development Collaborative Int'l.	Population Services International	Practical Concepts Incorporated	Project Management Associates, Inc.	Project Systems & Associates	Public Administration Service	Research for Better Schools, Inc.	Research Triangle Institute, The	Resources Development Associates	Rhode Island, U. of--Inter- national Center for Marine Resource Development
	TYPE									
Advisory	x	x		x	x	x	x		x	x
Training and Education	x		x	x		x	x		x	x
Research		x				x		x		x
FIELD										
Agriculture, Agribusiness	x					x			x	
Banking, Credit	x					x				
Computer				x	x			x		
Construction				x	x					
Cooperatives										
Development Administration	x					x				
Education							x	x		
Engineering	x			x				x		
Environmental Plans								x		
Evaluation	x		x	x			x	x	x	
Feasibility Studies	x									
Financial Management	x			x	x	x			x	
Fisheries, Aquaculture										x
Health, Nutrition		x						x		
Industry										
Information	x	x								
Manpower, Labor	x							x	x	
Marketing		x								x
Management Aids (CPM, PERT)	x		x	x						
Operations										
Organization	x					x	x		x	
Planning Analyses, Studies	x	x	x	x	x	x	x	x	x	x
Population Planning		x						x	x	
Project Implementation	x	x	x				x		x	
Regional, Rural, Urban Dev.	x									
Reporting										
Systems	x		x	x	x				x	
Transportation	x								x	
Water, Utilities, Power	x					x				

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Stanford Research Institute	Stanford U.--Institute for Communication Research	Stanford U.--International Dev. Education Center	Sterling Institute--Educational Technology Center	Stone & Webster, Incorporated	Syracuse U.--Maxwell School of Citizenship & Pub. Aff.	Transcentury Corporation	Tulane U.--Institute for Health Services Research	U.S. Dept. of Agriculture--Graduate School	Vanderbilt U.--Graduate School of Management
TYPE										
Advisory	x	x		x	x	x	x	x		x
Training and Education		x	x	x	x	x	x	x	x	x
Research	x	x	x	x		x		x		x
FIELD										
Agriculture, Agribusiness	x								x	
Banking, Credit	x									
Computer				x	x					
Construction					x					
Cooperatives										
Development Administration						x				
Education	x	x	x	x		x	x			x
Engineering	x				x					
Environmental Plans	x				x					
Evaluation		x	x		x		x			
Feasibility Studies	x				x					
Financial Management	x				x					
Fisheries, Aquaculture					x					
Health, Nutrition	x	x					x	x		
Industry	x			x	x				x	
Information	x	x								
Manpower, Labor	x				x		x			
Marketing					x					
Management Aids (CPM, PERT)										
Operations				x	x					
Organization					x	x			x	
Planning Analyses, Studies	x	x	x		x		x			
Population Planning								x		
Project Implementation										
Regional, Rural, Urban Dev.	x	x								
Reporting										
Systems	x			x				x		
Transportation					x					
Water, Utilities, Power	x				x					

TYPE AND FIELD OF MANAGEMENT ASSISTANCE	Waldron, A. James, Enterprises	Wolf and Company	YMCA, National Board of-- International Division	Young, Arthur, & Company						
TYPE										
Advisory	x	x	x	x						
Training and Education	x	x	x	x						
Research		x								
FIELD										
Agriculture, Agribusiness										
Banking, Credit										
Computer				x						
Construction	x									
Cooperatives										
Development Administration										
Education										
Engineering										
Environmental Plans										
Evaluation			x	x						
Feasibility Studies										
Financial Management	x	x		x						
Fisheries, Aquaculture										
Health, Nutrition										
Industry	x	x								
Information										
Manpower, Labor										
Marketing										
Management Aids (CPM, PERT)	x									
Operations				x						
Organization		x								
Planning Analyses, Studies	x	x	x	x						
Population Planning										
Project Implementation		x	x	x						
Regional, Rural, Urban Dev.			x							
Reporting										
Systems		x		x						
Transportation										
Water, Utilities, Power										

ORGANIZATION DESCRIPTIONS

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
1414 Twenty-second Street, N.W.
Washington, D.C. 20037

PURPOSE

To improve the quality and efficiency of national education systems.

DESCRIPTION

The Academy for Educational Development, Inc., is a nonprofit planning organization; its principal offices are in Washington, New York, and Palo Alto. Since its founding in 1961, the Academy has performed a variety of services, ranging from an analysis of the principles of international mediation to the evaluation of the role of instructional technology in American education and in developing countries. These services have been conducted for educational institutions here and abroad; agencies of federal, state, and local governments; foreign government agencies and organizations; foundations; and other nonprofit organizations.

Services of the Academy are adjusted to the specific needs of each client organization. Staff assistance or an entire project and administrative team may be provided. The Academy frequently supplements expertise and experience of study teams with internationally known consultants who have worked on specific problems designated for study by a client. Often a panel of experienced individuals is appointed to oversee project reviews and staff research and to make recommendations.

STAFF

The Academy has a full-time staff of approximately 100 people; of these, about 60 serve at the professional level. In addition, the Academy has an active roster of over 200 consultants in fields ranging from public administration to educational management. Included among its staff and available consultants are former university presidents; administrators from the academic community; management analysts; economists; communications specialists and journalists; media specialists; personnel specialists; experts in testing, evaluation, and counseling; behavioral scientists; experts in international relations; sociologists; psychologists; anthropologists; development specialists in agriculture, health, nutrition, population planning, and education; and administrators.

EXPERIENCE

The Academy has participated in a number of projects in developing countries under the auspices of several foreign governments and AID, including the following:

- Provided, under agreement with AID, such professional services as detailed planning studies on human resources development problems; advisory services in program planning, analysis, and evaluation; development of educational technology systems; and assistance in recruiting experts for short-term assignments.
- Assisted the government of El Salvador with the analysis of costs, management needs, and increasing access to education resulting from the adoption of instructional television as a central component of nationwide educational reform. Following this evaluation, the Academy was requested by the Ministry of Education to recruit technical advisors to assist in teacher training, curriculum development, educational planning, educational television production, and the establishment of an educational materials center.
- Currently assisting the Ministries of Education, Communications, and Agriculture of Guatemala with pilot programs for education in rural areas by using instructional technology.
- Conducted seminars for government leaders, planners, and assistance agencies in developing countries on planning for the use of instructional technology for education. The materials developed for these seminars included a film, Classroom Television: An Instrument for Educational Change, and a handbook on educational technology in developing countries, both of which have been widely disseminated in English, French, and Spanish.
- Currently involved in a two-year assistance advisory project for the state government of Rio Grande do Sul, Brazil. Goals include the establishment of six television production studios and the development of experimental antenna systems for broadcasting in remote areas.
- Provided professional and staff assistance in the Ivory Coast to an international team evaluating the national educational television system for primary school reform.
- Is assisting the government of the Republic of Korea in the development of an education and training program for persons in upper and middle levels of management and in related professions. The Academy has agreed to organize a team of consultant specialists to conduct a nationwide study of business management education and training in Korea and to develop suitable recommendations for improvement. The Academy will also investigate the adequacy of medical and paramedical education, which will lead to the development of a plan for improving the system in Korea.
- Is conducting feasibility studies in selected developing countries to help them determine effective ways to achieve more rapid and less costly development in basic education, agriculture, nutrition, health, population planning, and formal school instruction.
- The Information Center of Instructional Technology, maintained by the Academy on behalf of AID, provides consultation, referral, and

information exchange services, frequently in a seminar format, to education leaders from developing countries interested in applying educational technology to improve their national education systems.

PUBLICATIONS

A list of Academy publications is available on request.

INQUIRIES should be addressed to Director of Administration, Washington Office.

ACTION PROGRAMS INTERNATIONAL (API)

606 Wilshire Boulevard
P.O. Box 638
Santa Monica, California 90406

PURPOSE

To assist in solving management problems of economic development by working directly with developing countries or through technical assistance agencies.

DESCRIPTION

API, a California corporation, was established in 1969. The company's capabilities for building up the indigenous capacity for planning and implementing development projects are in the fields of development administration, including human resource development, and in the public and private industrial transportation sectors, as further described below.

Development Administration

API is equipped to assist governments that wish to move from a bureaucratic orientation to a management orientation with development projects in all sectors, thereby strengthening their institutional base for carrying out the development effort. This is done through such means as:

- Analyzing the work flow of the project development and implementation process in order to determine structural and procedural problems. Appropriate changes are recommended.

- Improving the programing stage of the project development and implementation process when projects which have been identified and described in general terms in "five-year development plans" are shaped into specific one- or two-year funded projects for implementation. API consults and trains in such aspects of programing as resource allocation, implementation planning, and management information and control.

- Applying appropriate new management techniques and practices to project management, e.g., use of management-by-objectives, matrix management, organization development, and program budgeting. These techniques can be transferred in a pilot project (on-the-job) or in seminars and workshops.

Human Resource Development

API is equipped to assist governments in establishing manpower assessment and planning programs, nationally or in sectors. A typical program starts with a survey of the existing manpower base, followed by a determination of the manpower needed (categories and numbers) to reach development goals. The manpower gap is then analyzed in relation to existing and proposed training and educational facilities; policies and action plans to fill the gap are established.

API also offers a four-part program for the development of indigenous entrepreneurs:

1. Laboratory on small enterprise formation for administrators who are responsible for furthering such development.
2. Workshop for reviewing policy and establishing strategy for improving and expanding national small enterprise effort.
3. Training programs for present and potential entrepreneurs of small-scale enterprises.
4. Feedback and corrective action system for increasing the effectiveness of on-going and new enterprises, of training methods, and of machinery for enterprise development.

Public and Private Industrial and Transportation Projects

Key associates of API have had direct responsibility for planning and implementing major, complex projects in U.S. industry and for regional and individual development programs and projects in developing countries.

Special Capabilities

Essential skills and characteristics common to successful project managers have been analyzed, and API believes these characteristics apply to managers in developing countries as well. API offers to assist governments, parastatal bodies, or private firms in identifying indigenous project managers and to help these managers master the required skills on the job, during the programing and initial implementation phases of specific projects.

API also believes that one key to a project manager's success is his ability to respond to the inevitable problems which beset projects and change plans. API's personnel work with the project manager during the change process, transmitting critical replanning, communications, and team-building skills which enable him to redirect his project as necessary.

API offers to assist on-going projects that are experiencing difficulties by analyzing problems, suggesting solutions, and helping to implement them. API is thus prepared to take a more active role than that usually included in project evaluation; however, interventions would be carried out through developing country personnel.

STAFF

The staff consists of one principal (full-time) and three associates. The associates have other activities, but give priority to API assignments; some associates have worked with API on this basis for the past four years. API calls on the services of specialists in various branches of management science as needed for particular assignments.

The fields of special competence of the principal and associates are:

- General management and organization, industrial development, and human resource development.
- Project management, program analysis and evaluation, and transportation project development.
- Organization development, staff development, and training systems design.
- Business enterprise development, marketing management, and management information systems.

EXPERIENCE

Kenya, 1970. Advised Commission of Inquiry on governmental structure and machinery. API's report recommended improvements in the development cycle from planning through implementation of programs, with special attention given to interministerial coordination and project control in the field.

AID, 1971. Surveyed field organizations and procedures of the Africa Bureau to further new Agency guidelines on improving project operations. The report analyzed problems being experienced and recommended new organizational models and revised work flow.

---, 1974. Assisted in preparing Operations Planning Workshop held in West Africa in late 1974. Management of a range of Sahel project activities was discussed, and improved methodology for project reporting and control was introduced.

UNIDO, 1972. Prepared training syllabus in industrial administration and served as consultant at a Regional Training Workshop for Industrial Administrators of English-speaking African countries in Addis Ababa. The syllabus and workshop demonstrated the use of modern

administrative techniques by public industrial administrators, with emphasis on project management techniques.

PUBLICATIONS

Improving Industrial Administration, United Nations Publication, Sales No.: E. 74. II. B. 1, June 1974.

Manpower and Aid, Problems of Foreign Aid: A Conference Report. Oxford: Oxford University Press, 1965.

A Management System for Economic Planning and Operations. Report of the Commission of Inquiry. Republic of Kenya, Government Printer, 1971.

Organizational Models for AID Project Activity in Africa. Report No. 71-2, Contract AID/AFR 772, July 30, 1971.

INQUIRIES should be addressed to President, API.

AGRIBUSINESS ASSOCIATES

5 Rungtley Road
Chestnut Hill, Massachusetts 02167

PURPOSE

To provide management and economic consulting to organizations involved in agribusiness.

DESCRIPTION

Agribusiness Associates is an informal association of professionals organized in 1973 to apply a commodity systems approach to certain decision problems of agribusiness clients involved in the production, processing, and marketing of products grown on the land or in the water, including suppliers of inputs and those engaged in storage and transportation, as well as wholesalers and retailers. The association specializes in the management of projects related to the identification of marketing opportunities for agribusiness firms, and the employment of coordinating mechanisms for improving food marketing efficiency. The association's capabilities also include business strategy, long-range planning, finance, commodity procurement, and management of commodity inventories, including futures trading.

STAFF

Five members of the association are regularly available. Others are available on a basis which would not interfere with their academic or

other professional responsibilities.

EXPERIENCE

Central America. Surveys of banana, vegetable oil, and beef economies. Teaching of courses on agribusiness, agribusiness project management, and agribusiness project analysis.

Tanzania. Analysis of structure and functions of the Ministry of Economic Affairs and Development Planning, and recommendation of changes.

Other. Analysis of various agribusiness firms.

AGRICULTURAL COOPERATIVE DEVELOPMENT INTERNATIONAL (ACDI)
1430 K Street, N.W.
Washington, D.C. 20005

PURPOSE

To act as a channel through which successful U.S. agricultural cooperatives can share their knowledge and experience to help create viable cooperative institutions in the less developed countries.

DESCRIPTION

ACDI was incorporated in 1963 as a nonprofit organization. It recruits technicians from U.S. cooperatives and other sources, including managers, accountants, training specialists, marketing experts, and agronomists, to staff cooperative institutional development projects. Most of these projects are carried out under contract with AID.

Short-term technicians are also provided to assess the feasibility of cooperative programs, to analyze existing operations, and to develop the form of AID project involvement.

STAFF

A central staff of four permanent professionals supervises and supports country projects, carries out short-term consultation services, and recruits, screens, orients, and trains staff for overseas assignments.

EXPERIENCE

Current Activities

Guatemala. Regional multipurpose cooperative development in the

Indian Highlands (marketing, supply, distribution, and credit) and assistance to the national federation, FECOAR (three Spanish-speaking technicians).

Paraguay. Management consultants to National Federation of Agricultural Cooperation (UNIPACO) for marketing and supply operations (two Spanish-speaking technicians).

Philippines. Technical assistance in cooperative organization in Nueva Ecija pilot program related to land reform. Also advisory service to GRAMACOP, the national grain marketing cooperative.

Tanzania. Four operating executives (OPEX) in grain marketing, accounting, storage, planning, pricing, etc., assigned to the National Milling Corporation.

Kenya. Four credit specialists serving as supervisors for the Agricultural Finance Corporation.

Other Activities

In the last two years, ACDI has completed projects in Uganda, Honduras, and Vietnam. ACDI has also conducted two area workshops for cooperative leaders in Central America and West Africa.

PUBLICATIONS

A Decade of Cooperative Development in Uganda.

News of Cooperative Development. Issued bimonthly.

Annual Reports.

Miscellaneous pamphlets dealing with special problems of cooperative development.

LOUIS A. ALLEN ASSOCIATES, INC.

625 University Avenue
Palo Alto, California 94301

PURPOSE

To provide research, education, and consultation programs and services to organizations and individuals throughout the world to aid in the improvement of the professional practice of management.

DESCRIPTION

The firm was established in 1957. It specializes in selecting and

training project teams to identify, analyze, and assess alternatives, and to develop practical solutions to management problems related to planning, controls, organization, and the human factors, including decision-making, motivation, communication, and development of people. The basic approach is (1) to maintain continuing research in the practice of management, (2) to draw from this research the most useful concepts, principles, techniques, and vocabulary of management, (3) to convert this information into teaching and consulting programs, and (4) to use these programs to help managers in client enterprises to solve their own problems through the use of project teams.

STAFF

The firm has a staff of 55, 33 of whom are full-time professionals with a minimum of 15 years of management, teaching, or consulting experience. All specialize in management, that is, in the functions of planning, organizing, leading, and controlling the technical work of an enterprise. Their backgrounds range from marketing and production to education, government, and health care.

EXPERIENCE

The firm has worked with businesses, hospitals, health care services, governments, and religious and educational organizations, primarily in industrialized countries. It has had only incidental experience in less developed countries, primarily as a minor facet of an assignment undertaken for a multinational client. Its programs and materials have been translated into a number of languages, including German, French, Portuguese, Italian, Spanish, and Japanese.

PUBLICATIONS

Staff members have written and spoken extensively on management subjects (3 books and over 200 articles). However, the firm has not published any material on projects in less developed countries.

INQUIRIES should be directed to Vice-President--Administration.

THE AMERICAN ASSOCIATION OF PORT AUTHORITIES, INC. (AAPA)

1612 K Street, N.W.

Washington, D.C. 20006

PURPOSE

To exchange information related to port construction, maintenance, operation, organization, administration, and management. To formulate

policies and plans to standardize and establish uniformity in the operation, construction, and management of port facilities and to recommend to the various ports represented in the Association the adoption of these policies.

DESCRIPTION

AAPA was incorporated in 1912 as a nonprofit organization. The total membership is about 400, which includes virtually every commercial harbor with public facilities in the western hemisphere--via individual port membership in the case of most U.S. ports and via a national government agency in the case of most Canadian, Central and South American, and Caribbean ports.

AAPA's license to exchange information has been broadly interpreted because of the unique nature of port management, i.e., the relatively small number of individuals involved, particularly within a specific port area, specialization of knowledge, and wide geographic dispersion of port professionals. In many cases, AAPA acts as a personnel agency, assisting in the relocation of personnel to accommodate ports and/or individuals. AAPA is thus in a position to know the availability of expertise in its specialized field and to provide staff for ports, consultants, and/or projects it manages directly.

STAFF

Day-to-day operations of AAPA are conducted by a small staff in the Washington headquarters, which is supported by some 18 committees generally based in North America. This extensive use of committees is a conscious effort to "exchange information" by maximizing personal contact between port professionals at all levels. These committees assist headquarters with original research, monitoring technical and legislative developments, and developing AAPA positions and policy.

EXPERIENCE

AAPA participates with government agencies and ports in short-term placement of personnel for on-the-job training. The program conducted in cooperation with OAS was called "Puertos Amigos."

AAPA also developed a total-immersion, week-long "Port Executive Development Seminar," which has been presented once or twice annually since 1969 in English. Recently, a Spanish version (with appropriate localized case studies) was presented in Mexico City, and it is expected to be repeated at least annually. AAPA financed the course preparation and holds the copyright.

The first university-level seaport management course, presented since 1972 at the U.S. Merchant Marine Academy, Kings Point, New York, was designed by the former executive director of AAPA, Paul Amundsen. For the

future, AAPA has under consideration a cooperative postgraduate college course oriented toward port management, plus several variations of the management seminars.

PUBLICATIONS

AAPA publishes weekly newsletters and monthly news bulletins in Spanish and English.

AAPA is the copyright holder of certain port-related textbooks prepared by AAPA committees and members (on port construction, maintenance, administration, development, etc.).

Further information on AAPA activities is available on request.

AMERICAN GRADUATE SCHOOL OF INTERNATIONAL MANAGEMENT (AGSIM)
Thunderbird Campus
Glendale, Arizona 85306

PURPOSE

To create a national center of higher education where men and women from all countries might prepare themselves for international management careers in industry, government service, and social agencies engaged in international operations.

DESCRIPTION

AGSIM was founded in 1946 as the American Institute of Foreign Trade. The tripartite curriculum of the School is designed to provide a pragmatic blend of intensive training leading to a knowledge of the practical realities of international finance and business management, knowledge of the complexities of serving in a leadership capacity in a variety of cultural settings, and conversational fluency in a foreign language.

STAFF

The School has approximately 75 faculty members: foreign nationals who teach the languages of their origin; Ph.D.s and former executives in the field of world business; and professors of international studies who have lived outside the U.S.

EXPERIENCE

Key Man Course Program

This series of six- and eight-week language and international studies courses is a nondegree program designed to prepare executives and governmental and social agency employees for work overseas. The language training involves the audio-lingual technique. The languages taught are Spanish, French, German, Portuguese, Japanese, Mandarin, and English as a second language.

The Key Man course in English as a second language requires eight weeks of study. The vocabulary taught uses terminology related to business, government, and social agencies. At intervals during the session, lectures are given on the geography, economics, business, and way of life in the U.S.

International Executive Development Program (IEDP)

The School, drawing on its experience in international business as well as its ability to combine managerial techniques with environmental and cultural understanding, has established this program of management seminars to meet the need to develop decision-makers capable of finding analytical solutions to problems, strategic planning, and improving personal interrelationships.

The curriculum generally includes (1) the social and economic environment of international business; (2) structuring work activities, setting objectives, planning, and policy-making; (3) understanding and managing human resources--leadership, counseling, conflict, and motivation; and (4) understanding and utilizing international management sciences and the computer. Instruction relies heavily on the "case method."

The IEDP is instructed principally by the School's faculty. Topics of a specialized nature, however, are handled by individuals from that particular field. The Phoenix community has many people with such talent, and they fully cooperate with the School, both by lecturing on campus and by arranging for program participants to visit their facilities in the area. City, state, and federal government representatives also take an active part.

The School is affiliated with the American Management Associations (AMA) and is able to take advantage of their considerable resources in the industrial and service community.

Various U.S. multinational corporations and the U.S. Embassy in Mexico have participated in the program.

The Institute for International Studies and Training (IIST) of Japan sent 45 of their students, middle management businessmen from Japan's largest financial and industrial institutions, to the IEDP for ten days in 1973. They also attended a seminar on "The U.S. Investment

Climate for Japanese Enterprises" in September 1974. The programs were taught by 12 of the School's faculty, 8 representatives of industry, banking, and tourism, and professors from Arizona State University. One of the topics was the "Comparison of American and Japanese Styles of Management" (taught by an AGSIM professor).

Certificate of Advanced Study Program

Graduates of accredited colleges with the proper credentials are admitted to the School on a nondegree basis to take whatever courses are of interest to them for such period of time in excess of 12 credit hours they desire.

AMERICAN HOSPITAL ASSOCIATION (AHA)

840 North Lake Shore Drive
Chicago, Illinois 60611

Washington Office
1 Farragut Square South
Washington, D.C. 20006

PURPOSE

To promote the public welfare through the development of better hospital care for all people.

DESCRIPTION

The AHA was established in 1898. Today it is an organization of more than 7,000 hospital and related health care institutions, 2,000 hospital auxiliaries, 85 Blue Cross plans, and more than 16,000 personal members--all concerned with improving the care of patients in health care institutions. Information, advice, and assistance requested by members and by the public are supplied by staff specialists in many areas. Its functions revolve around the aim that the care of patients in all hospitals should be continually evaluated and improved. It is the forum in which hospital problems are scrutinized and answers to them are sought. Its activities involve hundreds of representatives of institutional members, most of whom are administrators, but among whom are also health care professionals of almost every designation. In addition to hospital administration, these activities cover a wide range of hospital and health affairs.

AHA is consulted by legislators, government officials, and health field groups for assistance in fact-finding, in interpretation of the public interest as it relates to health care, and in implementation of programs approved and passed into law by the Congress.

Special project management services are numerous and include the

following: planning; health delivery systems; management; organization of governance of health care institutions; plant operations; purchasing and central services resources; mergers; multihospital systems; facility design; construction; codes and standards; computer services; personnel administration; and labor relations.

STAFF

At its headquarters in Chicago and its office in Washington there are approximately 400 full-time employees to carry out programs and policies approved by the membership. AHA also maintains offices in Princeton, New Jersey; Chelsea, Massachusetts; Rockville, Maryland; Atlanta, Georgia; Kansas City, Missouri; Dallas, Texas; Denver, Colorado; and San Francisco, California.

EXPERIENCE

Representative projects for which AHA, at the request of AID, has provided implementation staff in the past five years include:

Laos. Planning for hospitals and their equipment. Evaluation of organization, staffing, and operation of hospitals.

Colombia. Evaluation of the effectiveness of using counterpart funds for health services and health facility construction. Consultative services on health planning.

---. Analysis of proposed three-year health sector investment plan and budget.

Nicaragua. Planning construction of children's hospital. Assessment of conditions and practices in 24 hospitals.

Dominican Republic. Evaluation of the Ministry of Health's capability for managing the procurement of medical and surgical equipment for hospitals and health care institutions.

Costa Rica. Organization and development of two refresher courses in hospital administration (1972-74) for hospital administrators of 24 national hospitals.

Venequela, Brazil, Saudi Arabia, Kuwait, and U.A.R. Organization and coordination of medical and surgical equipment seminar, in conjunction with a Trade Mission of the U.S. Department of Commerce.

All the above required staff with language capabilities other than English. Some reports were prepared in Spanish.

AMERICAN INSTITUTES FOR RESEARCH (AIR)
3301 New Mexico Avenue, N.W.
Washington, D.C. 20016

PURPOSE

To conduct basic and applied research in behavioral sciences, including problem definition, research management, technical services, and program evaluation. The major aim is to obtain solutions to problems involving individual development, social change, human performance, and organizational behavior.

DESCRIPTION

Established in 1946, AIR is an unendowed, nonprofit, scientific corporation. Branch offices are located in Palo Alto, California, and Pittsburgh, Pennsylvania. Support offices are maintained in Europe, Africa, Asia, and throughout the U.S. AIR provides project management services in the following areas:

Measurement. Development of aptitude tests for use in other cultures and their application to educational and employment selection in African, Asian, and South American countries. Establishment and management of testing centers and training of indigenous personnel in developing nations.

Education. Design of innovative educational delivery systems in eight Southeast Asian countries. Development and evaluation of curricula in developing African countries.

Health. Development of evaluation plan for low-cost health delivery systems in developing countries.

Project Management. Evaluation of project management training programs in Africa to assess effectiveness and recommend improvements.

Fertility Behavior. Studies of psychosocial factors in fertility regulating behaviors in the U.S. and abroad. Investigation of alternative methods of population control.

Action Programs. Development of an index of economic, social, and political progress in rural locations. Study of the impact of new technology on the economy, sociology, and psychology of remote communities in a developing country.

STAFF

AIR has approximately 350 employees, including researchers, supporting technical staff, and administrative and clerical personnel. Some 100

of these are senior scientists who hold doctoral degrees and direct a broad range of projects for more than 50 sponsors throughout the world.

EXPERIENCE

Projects are being conducted in the following areas of research: education; health; human relations; disadvantaged groups; human performance; law enforcement; career development; organizational behavior; training, selection, and classification; performance evaluation; human factors; safety; fertility studies; and international development.

The following is a list of some of the projects undertaken in the past five years:

AID-Financed Activities

1970-71. Technical advisory services related to educational innovation and technology in Southeast Asia (INNOTECH).

1970-71. Technical assistance in population research in the Dominican Republic.

1971-73. Program evaluation services.

1971-73. System for evaluating program impact on village behavior.

1973. Evaluating impact of AID participant training.

1974. Impact of science and technology on development.

1974. Evaluation of the AID project management training program in Africa.

1974. Evaluating low-cost health delivery systems in developing countries (DEIDS Evaluation).

1974. Participant Training Impact II.

Other Activities

UNESCO, 1971-72. Systems approach to educational development in Indonesia.

DHEW, 1974. Office of the Assistant Secretary for Planning and Evaluation. Handbook on evaluation management.

INQUIRIES should be addressed to Research Planning Office, AIR.

AMERICAN PUBLIC HEALTH ASSOCIATION (APHA)
Division of International Health Programs
1015 Eighteenth Street, N.W.
Washington, D.C. 20036

PURPOSE

To protect and promote personal and environmental health through the improvement of the art and science of public health.

DESCRIPTION

APHA is a multidisciplinary professional association established in 1872. It includes representatives of all health specialties, including administrators and economists as well as traditional health workers. It serves as a focal point for communication among numerous health related organizations, and it seeks to influence public policies related to health. The Division of International Health focuses on management of health programs and systems with particular interest in the development of low-cost, accessible health delivery systems through the DEIDS program (Development and Evaluation of Integrated Delivery and Nutrition).

Through the use of consultants, staff, or subcontractors, APHA undertakes tasks in developing countries in the following areas:

- Planning and assisting in the implementation and evaluation of population, health, and nutrition programs.
- Developing programs for the education and training of health and health related personnel.
- Assisting in identification of obstacles to full utilization of program resources.
- Assessing the function and value of national voluntary health agencies in developing countries.
- Planning and evaluating programs for low-cost health service delivery systems under the DEIDS program. The APHA staff supervises the design of pilot demonstrations of such projects which will test the feasibility of reaching at least two-thirds of women of reproductive age and children below the age of five with these services.

Implementation of the DEIDS program involves three distinct phases: (1) an appropriate country and site are selected and identification is made of current efforts to bridge the gap in the delivery of health services, of key administrative and management problems, and of cultural constraints to the improvement of the system; (2) a pilot demonstration is designed by the host country's Ministry of Health staff in conjunction with APHA staff members and consultants from selected U.S. universities; (3) implementation of the project is to be accomplished by the host

country working with university subcontractors to APHA as well as with APHA staff. Assistance is provided largely in management techniques, systems, training, and evaluation. Two projects, in Thailand and in Ecuador, are moving into the third phase, and approximately five other countries are between phases (1) and (2). In these programs APHA seeks specifically to increase the management capability of the host country through advisory and operational assistance.

STAFF

The Division of International Health Programs consists of a 15-person staff, including specialists in health management, health education, community development, epidemiology, population, and evaluation. Consultants or staff with capability in most languages can be recruited.

EXPERIENCE

Representative projects accomplished include:

Bolivia/Haiti. Assistance in the development of the health planning section of a health sector analysis.

Paraguay. Advice on management and administration of family planning program.

Pakistan. Advice on development of vehicle maintenance and repair system.

Philippines. Assistance for integration of family planning into health delivery system.

---. Evaluation of problems of distribution, use, and acceptance of oral contraceptives.

Indonesia. Training of health education specialists.

Central West Africa. Assistance in design and implementation of smallpox and measles vaccine program.

THE AMERICAN TECHNICAL ASSISTANCE CORPORATION (ATAC)
7655 Old Springhouse Road
McLean, Virginia 22101

ATAC was founded in 1966 to provide professional staff services in economic analysis, specializing in the design, installation, and operation of multiyear planning-programing-budgeting systems and in public and private sector investment decision-making techniques and strategies.

In 1970 ATAC became a wholly owned subsidiary of General Research Corporation. For a description of the combined capabilities of these organizations, see the entry for General Research Corporation elsewhere in this compilation.

AUBURN UNIVERSITY

Department of Fisheries and Allied Aquacultures
International Center for Aquaculture
Auburn, Alabama 36830

PURPOSE

To increase fish production through improved aquaculture production practices.

DESCRIPTION

The Center was established in 1970 at Auburn University Agricultural Experiment Station as the result of a grant provided under Section 211 (d) of the Foreign Assistance Act of 1961. The grant was made in order to strengthen the Station's competence in aquaculture. The Center engages in a complete line of management services as needed in inland fisheries programs and aquaculture, especially to increase the supply of high-quality protein in less developed countries.

The Center assists in planning the necessary experimental facilities and in training host-country personnel in modern testing and management methods for developing highly productive aquacultures. The services include:

- Evaluating problems and developing plans of operation to increase fish production in developing countries.
- Planning pond-culture research stations, including construction.
- Assisting host countries in developing research programs and procedures.
- Conducting short courses both at the Center and abroad for training host-country fisheries personnel in advanced practices.
- Training personnel at B.S., M.S., and Ph.D. levels in academic subjects and research methods.
- Assisting host-country fisheries personnel in the preparation of research results for publication and in producing effective extension leaflets.
- Providing experts from Auburn University and other institutions

for short-term visits to developing countries to help solve special aquaculture problems.

- Providing a limited number of staff for two-year assignments in host countries.

STAFF

The staff consists of 30 professionals in the Department of Fisheries and Allied Aquacultures and International Center. About 80 percent of the staff participates directly in overseas projects.

EXPERIENCE

AID-Financed Activities

Under worldwide contracts, fishculture surveys and short-term studies on specific fisheries problems have been carried out in 30 countries, including:

Africa. Senegal, the Ivory Coast, Togo, Ghana, Nigeria, Cameroon, and Central African Republic.

Asia. The Philippines, Thailand, Vietnam, Malaysia, India, and Pakistan.

Central and South America. Brazil, Colombia, Ecuador, El Salvador, Panama, Paraguay, and Peru.

In addition, the Center has participated in research and training of participants from AID projects abroad.

Other Activities

Members of the Fisheries Department staff are also contributing to international fisheries development by providing consulting services to such institutions as the World Bank and FAO, as well as private industry and universities.

The graduate training program has an annual average enrollment of 55 students in advance degree programs, of which 30 or more normally are from foreign countries.

PUBLICATIONS

Allison, R. Feasibility Study in Philippines of the Coastal Nipa Forests at the Mouth of the Bicol for Fishpond Development. 1974.

Greenfield, J. E. Economic Evaluation of Brazil Aquaculture Project. 1974.

- Johnson, M. C. Establishment of Commercial Food Fish Production Farm for the Mid-Western State, Nigeria. 1974.
- Moss, D. D. The Design and Plan for Establishment of an Aquaculture Research Station for INDERENA, Government of Colombia.
- Moss, D. D., and Bayne, D. R. Review of the El Salvador Fisheries Project. 1973.
- Moss, D. D., et al. Fishculture Survey Report for West Central Africa. 1969.
- Prather, E. E. Fishculture Feasibility Study for Jamaica.
- Shell, E. W., et al. Third Report of Short-Term Survey in Brazil of Certain Reservoirs to Establish Criteria for Improved Freshwater Fisheries and Intensive Fishculture Management. 1968.
- Swingle, H. S. Report of Fisheries Training in Research and Extension at the Fisheries Stations of Thailand--In Country Report. 1969.
- World Bank Team (D. D. Moss, consultant). Bangladesh Inland Fisheries Project Identification Pre-preparation Mission Report. 1973.

BATTELLE MEMORIAL INSTITUTE
505 King Avenue
Columbus, Ohio 43201

PURPOSE

Research, development, and educational activities serving the public.

DESCRIPTION

Established in 1925 as a nonprofit corporation, Battelle, with headquarters in Columbus, Ohio, has four major research centers in the U.S. and Europe. Additionally, it has five sites for specialized research, as well as offices and representatives in various cities in the U.S., Europe, Latin America, Africa, Asia, Australia, and the Far East.

Battelle research includes the physical, life, behavioral, and social sciences and developments related to these fields. Activities are primarily in scientific research, including nonresearch supportive activities where required: for example, research conducted to aid a community or geographical area by attracting new industry, or by encouraging the development or retention of an industry.

STAFF

In 1973, Battelle's worldwide staff consisted of 5,890 scientists, engineers, and supporting specialists. Their efforts contributed to 3,620 contract research studies sponsored by 1,772 companies and government agencies representing organizations in 34 countries. More than one-fifth of the total staff held graduate degrees.

EXPERIENCE

Algeria. Definition of R&D activities, 1974-81. Development and planning of paper industry. Long-term development of hydrocarbon refining industry.

Brazil. Techno-economic study on production and consumption of fabrics.

Ivory Coast. New formulations for match production.

Libya. Market study for magnesium metal and potash fertilizer. Techno-economic feasibility of export refinery. Prefeasibility study for export steam cracker.

Nigeria. Feasibility study on special development projects in Rivers state.

Philippines. R&D of process for concentration of hydrazine.

Saudi Arabia. Study to establish price formula for fuel grade methanol.

Senegal. Comparison of nutritive value of proteins from peanut cakes.

South Vietnam. Advisory services for erection of cement plant. Prefeasibility study on city composting operation.

PUBLICATIONS

President's Report and Annual Review.

Published Articles and Papers (annually).

Battelle Research Outlook (biannually).

R&D Today (quarterly).

Energy Perspectives (monthly).

Capability statements and research pamphlets (occasionally).

INQUIRIES should be directed to Vice-President--Operations.

BEGITTEL CORPORATION

50 Beale Street
San Francisco, California

Washington Office
1620 Eye Street, N.W.
Washington, D.C. 20006

PURPOSE

To provide services in engineering, construction, and project management to industrial and public clients.

DESCRIPTION

Bechtel, begun in 1898, operates from offices in San Francisco, Los Angeles, New York, Washington, D.C., Portland, Oregon, and Houston, Texas, as well as Toronto, Montreal, Paris, London, the Hague, and Melbourne.

The company's engineering and project management capabilities cover a broad range of technology, project management, and supporting services. Using the "team concept," Bechtel undertakes for clients the over-all direction of projects from inception to completion. This involves the administration and cost control of architectural and engineering work by others and the coordination and management of construction activities of contractors. The scope of services includes: project manager and staff; reporting system; cost estimate-project budget; project schedules (CP network, cash flow requirements); design review; contract document review; definitive cost estimates; cost-control programing; contract programing and administration; procurement; financing; manpower-labor relations; forecast reports; close-out contracts; start-up and occupancy; monitoring by Bechtel home office management; international monetary and taxation advice; computer applications; legal and insurance advice; and community and public affairs.

STAFF

Bechtel is organized in eight operating divisions, staffed by 4,500 technical personnel (not including engineers assigned to administrative and support functions). The worldwide, nonmanual work force totals more than 23,000 permanent employees.

EXPERIENCE

Bechtel has completed major engineering projects in nearly 100

countries on all continents. Some were undertaken singly; others, as joint ventures. They include the Ponce Petro-chemicals complex in Puerto Rico; the Trans-Arabian pipeline; copper and iron ore facilities in Bougainville, Brazil, Australia, and elsewhere throughout the world.

Bechtel has also provided project management services for engineering and construction of medical facilities, high-rise office and commercial buildings, laboratories, and major hotels throughout the world.

LOUIS BERGER INTERNATIONAL, INC.
100 Halsted Street
East Orange, New Jersey 07019

PURPOSE

To build a bridge of engineering, architectural, and planning capabilities between man and his life-supporting environment.

DESCRIPTION

Louis Berger International, Inc., is the official corporation name of the Berger Group. Established in 1953, the Berger Group is now operating in some 37 countries and all continents, with headquarters in East Orange, New Jersey, 31 branch offices, and 6 wholly owned subsidiaries located in countries outside the U.S., including large Francophone and Spanish-speaking divisions. The Berger Group provides services in project development and program management in architect-engineer oriented development programs, development and resource planning, physical planning, economics (both public and private sectors), training programs, and reorganization of government departments. Activities embrace the fields of agriculture, industry, transportation, and water resources.

STAFF

The Berger Group has a professional staff numbering in excess of 800, including architects; engineers; physical and manpower planners; development, transportation, and industrial economists; agronomists; soil specialists; environmental specialists; water resource planners; cost accountants; organization and methods specialists; management personnel; educators; sociologists; computer programmers; and communications engineers.

EXPERIENCE

Louis Berger International, Inc., has executed over 700 major projects and programs in 49 countries during the past five years. For

experience in project management, see separate profile on the Development Economics Group, one of the divisions of Louis Berger International, Inc., included elsewhere in this compilation.

PUBLICATIONS

For each project, a series of interim reports and a final report are printed and published, with wide circulation. In addition, the Berger Group prepares many professional publications and position papers dealing with a wide range of engineering, economic, environmental, and technical subjects. The Group also prepares technical papers for international conferences and seminars; for example, it organized a seminar for the Russian Academy of Science and Technology in Moscow in 1973, and it makes annual presentations to the U.S. Department of Commerce Foreign Service Personnel Training Program.

INQUIRIES should be addressed to President, Vice-President--Engineering, or Vice-President--Economics, as appropriate, at East Orange, New Jersey, headquarters.

BOOZ, ALLEN & HAMILTON, INC.
1025 Connecticut Avenue, N.W.
Washington, D.C. 20036

PURPOSE

To offer consulting services covering all basic areas with which managements of all types of enterprises are concerned.

DESCRIPTION

Originally founded in 1914 as a management consulting firm offering general business and management assistance to private enterprises, Booz, Allen has become a full-service consulting firm. Its services cover the following basic areas: management of organizations and people; management of financial resources against requirements and priorities of objectives and programs; and management of physical resources--land, facilities, and other tangible assets. In each of these areas, the company continues to develop services which recognize its clients' needs for assistance in all phases of management. Providing services to federal, state, and local government agencies and other institutions and nonprofit clients has been an important part of the firm's work for the past 40 years.

The firm is organized on an international basis with major U.S. offices in Chicago, New York, Washington, D.C., Cleveland, Cincinnati, Dallas, Los Angeles, Philadelphia, and San Francisco. Major overseas

offices are located in London, Paris, Algiers, Amsterdam, Bangkok, Brussels, Caracas, Dusseldorf, Sao Paulo, Taipei, Tokyo, Toronto, and Vienna. In addition, many project offices are located throughout the U.S. and around the world.

STAFF

The staff totals 967 full-time professional employees, including 133 officers, 240 associates, and 567 consultants. Professional staff members represent all major disciplines and include public administration specialists, economists, industrial engineers, accountants, management and computer specialists, urban planners, transportation planners, civil engineers, electrical engineers, and behavioral scientists.

EXPERIENCE

Booz, Allen & Hamilton has featured the development and application of project management systems and has conducted many consulting assignments related to project planning and control for major programs. This includes the development of PERT (Program Evaluation and Review Technique) in 1958 for the U.S. Navy Polaris Ballistic Missile Program. Subsequently, the firm refined and expanded the PERT concept in work for other government organizations, industry, and institutional clients. In the past five years, it has performed many major assignments requiring the development of a PERT network for specific planning, scheduling, and control tasks.

In addition, Booz, Allen has conducted over 300 assignments concerned with project management, resource management systems, and multiproject management for a wide variety of projects. Many of these concerned the construction of hospitals, universities, schools, transit systems, industrial development sites, highways, commercial buildings, residences, industrial plants, and urban renewal projects.

Representative assignments include:

Venezuela. Instituto Venezolana de Petroquimica (IVP) is charged with the development of the country's petro-chemical industry. It has underway a complex program for the construction and operation of facilities to manufacture plastics, fertilizers, and other oil-based chemicals. Booz, Allen was retained to develop, recommend, and assist in organizing and installing a modern project management system. A system using critical path techniques was recommended and was accepted by IVP management. Booz, Allen's contract was extended to assist IVP in implementing the system. Personnel were recruited, the proposed organization was staffed, and a program was developed to train personnel (both formally and on-the-job) in the methodologies and techniques involved and to assist them in installing and operating the system.

Thailand. The Metropolitan Water and Sewerage Authority (MWSA), Bangkok/Thonburi, is currently in the second stage of a two-stage project, financed entirely through the Thai budget. Stage (1) consisted of a comprehensive organization and management survey of MWSA from the viewpoint of its readiness to undertake two substantial 30-year development programs, one for water supply and the other for sewerage, drainage, and flood control. During stage (1) numerous important recommendations evolved concerning organization and all basic procedures--finance, personnel, procurement and contracting, asset inventory, and maintenance and operations. The recommendations were accepted by MWSA. Stage (2) consists of assisting MWSA in making a detailed design of organization and basic systems and procedures and in implementing both.

Booz, Allen has four American and six Thai professional personnel on this assignment. Each of these is matched by at least one Thai counterpart assigned by MWSA for training in the development of an organization manual and in the design of the necessary procedures. Plans have been made to train large numbers of MWSA employees as the systems and procedures are completed and ready for installation. Such training has already begun in some areas and additional substantial training will take place in personnel classification and wage setting, accounting, budgeting, contracting, and project management. When Booz, Allen's work is finished, MWSA should have a cadre of trained management personnel to staff its own organization and methods unit.

U.S. Department of Transportation. Booz, Allen is currently managing a large-scale project for the Urban Mass Transportation Administration, an arm of the U.S. Department of Transportation. Booz, Allen's responsibility is to plan, direct, and evaluate the bus technology research development and demonstration program. Several Booz, Allen divisions are involved, including Booz, Allen Applied Research; Simpson & Curtin, transit consulting engineers; Design and Development, new product and procedures engineers; and National Analysts and market and social science researchers. Eventually, a total of five major and eight minor contracts will be let. Currently, three major contracts and one minor contract have been processed by, and are under contract administration of, the Booz, Allen project team.

Shell Oil Company. This assignment was aimed at the development of a multiproject management system to coordinate the design and construction of approximately 35 related projects for an expansion and modernization program at a major refinery. Booz, Allen's work included the development and implementation of PERT plans, a resource allocation system, a cost reporting system, project control systems, and training programs. Shell needed a project management system to provide top management with sufficient information to ensure that major phases of the program were planned so that they could be completed in accordance with established objectives. At the same time, intermediate management needed a tool to ensure that all resources--men, materials, time, and money--were being used in the most efficient manner. In addition, line staff needed an aid for developing

detailed plans and schedules necessary to achieve over-all objectives.

INQUIRIES regarding the above information should be directed to Senior Vice-President, Government Services Group, Washington office.

BROWN & ROOT, INC.
P.O. Box 3
Houston, Texas 77001

PURPOSE

To provide services in engineering, construction, management, and all associated techniques for the effective prosecution of broad, diversified projects throughout the world.

DESCRIPTION

Brown & Root, an engineering and construction company, was organized in 1919 and incorporated in 1929. In 1962, a majority of the stock of the firm was purchased by Halliburton Company. Retaining its identity and autonomy, Brown & Root added to its services the talents available from Halliburton's diversified roster.

Brown & Root was basically a highway and bridge contractor until 1936 when it began to diversify into large concrete dam construction. This led to the construction of wartime air bases, ordnance and ammunition depots, and Navy ships. To meet the demand of post-World War II industry, the company continued to increase its capability by creating new divisions for the design and construction of process plants, pulp and paper mills, power plants, pipelines, marine facilities, steel mills, dams, and mining-- both domestically and internationally.

Brown & Root has developed specialized groups with the capability to design and construct facilities for industry in other fields besides those mentioned, including pollution abatement and control, hydrology, and environmental sciences.

An important service performed by the firm is project management. Brown & Root is frequently called upon to manage construction projects of considerable magnitude. Management contracts take various forms, depending on the nature of the particular project or the desires of the owner. In some instances, Brown & Root assumes responsibility for and management of a whole project from its inception, beginning with feasibility studies, design, detailed engineering, and carrying through to the supervision of construction performed by others.

STAFF

Brown & Root has 35,000 U.S. citizens employed throughout the world. Of this number, 3,500 are permanent supervisory construction staff employees. There are 3,000 personnel in the Engineering Division, 785 of whom are engineers; about one-fifth of the engineers are assigned to project administration.

EXPERIENCE

Recent projects in which Brown & Root has performed in a management and planning capacity include:

Arabian Gulf. Lavan Island Terminal (oil).

Botswana. Copper-nickel project.

Dominican Republic. Ferronickel plant.

Okinawa. Gulf Asian Terminal.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
School of Public Health
405 Hilgard Avenue
Los Angeles, California 90024

PURPOSE

To contribute to the development of health management.

DESCRIPTION

The School of Public Health has a program for graduate students. It also conducts research in health management and manages health facilities and programs in the U.S. and foreign countries.

STAFF

For management in the U.S., the School has 12 full-time professionals in the Division of Health Services & Hospital Administration. For management overseas, there are 5 full-time professionals in the U.S. plus numerous professionals overseas.

CHECCHI AND COMPANY
815 Connecticut Avenue, N.W.
Washington, D.C. 20006

PURPOSE

To advise and assist individuals, companies, governments, and communities on economic, financial, and management problems through research, special reports, and continuing consultation.

DESCRIPTION

Checchi and Company was established in 1951. Its services include:

- Providing advice to industrial and agribusiness development programs.
- Assessing the economic potentials of communities, areas, countries, and regions.
- Making feasibility studies of public and private, national and international development projects.
- Conducting studies and research on international trade, investment, and other economic development problems.
- Locating and evaluating new business opportunities.
- Providing investment counseling.
- Studying marketing problems.
- Arranging financing for overseas ventures.
- Consulting on development of cooperative institutions.
- Establishing and managing cooperative banks and other financial institutions.
- Managing enterprises.
- Recruiting and training personnel.
- Consulting and conducting studies on tourism and area development.
- Assisting with transportation planning.
- Making reports on telecommunications and defense.

STAFF

The company's permanent professional consulting staff includes specialists in the following areas:

Finance and Management	11
Area Development, Tourism, Cooperatives	5
Social Science and Survey Research	5
Agricultural Supply	3
Development Economics	2
Development Institutions	<u>1</u>
	27

Many of the specialists have capabilities in more than one of the areas listed. Numerous short-term consultants are also employed.

EXPERIENCE

Project Management Activities

Afghanistan. Advice and assistance to the government on private sector development.

---. Management consulting services to the Afghan Fertilizer Company.

East Pakistan. Advice and assistance to Small Industries Corporation.

Turkey. Advice on reorganization of the Union of Chambers of Commerce, Industry, and Commodity Exchanges.

---. Preparation of master plan for water and sewage system of Istanbul.

Ethiopia. Preinvestment study of northwest lowlands.

South Vietnam. Advisory and training services to the National Economic Development Fund.

Trinidad/Tobago. Technical assistance to the Agricultural Development Bank of Trinidad and Tobago.

Costa Rica. Evaluation and recommendations to Municipal Development Bank.

West Africa. Study of food grain production and marketing.

---. Project identification and analysis for drought-stricken region of the Sahel.

Puerto Rico. Management services to Cooperative Development Administration.

Cyprus. Management services to Cyprus Development Corporation.

Indonesia. Tourism and market resource study for the government for planning tourism development.

Bahamas. Design of ten-year tourism development program.

United States. Technical assistance and training in economic development planning and project analysis to Model Cities Programs.

---. Technical assistance and training in economic development to local entities.

Other Activities

Checchi's experience also includes program evaluation and policy studies, technical assistance and training to small business organizations, food and drug consultation services, and other economic studies.

PUBLICATIONS

Design and Implementation Plan for a National Institute of Economic Development. Institute of Public Administration, November 1972.

Food Grain Production and Marketing in West Africa. AID, March 1970..

The Humera Report: Resources and Development Planning. TAMS Agricultural Development Group, 1974.

Small Industry Development Financing in East Pakistan. 1972.

Technical Assistance in the Economic Development of the Model Cities Program. 1971.

Training and Technical Assistance to Low Income Cooperatives. 1971.

Checchi and Company has published more than 240 reports on domestic and international subjects since 1954.

INQUIRIES should be directed to Vice-President, Economic Consulting.

GLAPP AND MAYNE, INC.
1606 Ponce de Leon Avenue
Santurce, Puerto Rico 00909

PURPOSE

To provide management, planning, and economic consulting services with emphasis on developing areas and countries.

DESCRIPTION

Clapp and Mayne, Inc., was established in 1955. The services it renders include:

- Organization analysis and restructuring.
- Management information for planning, decision-making, and control purposes.
- Planning--economic, social, and physical.
- Economic analysis and feasibility studies.
- Personnel management--policies, classification and salary plans, recruitment, training, and evaluation.
- Finance administration--program budgeting and accounting systems, revenue and tax administration, collection procedures, and treasury management.
- Cadastral surveys, including property assessment and tax systems.
- Industrial development--planning and assistance in implementation.
- General systems analysis.
- Polling and market research--opinion and attitude polling of consumers of public and private services and commodities; market analysis; and media and audience research and profiles.

Clapp and Mayne, Inc., stresses (1) the development of new organization patterns, systems, and programs as specified in contracts and (2) the development within the client organization of the capability to maintain, operate, and continually improve and adjust the organization structure, systems, and programs to meet future conditions and to exploit new opportunities. The method used is to involve the client staff systematically in the planning, decision-making, action, and control phases, and to conduct workshops, seminars, and other training activities as appropriate to particular situations.

Through this approach clients can acquire the capability to carry programs forward without needing repeated applications of technical assistance, and "trainees" can assume highly responsible positions and further spread the expertise they have acquired by acting as advisors within their own countries.

STAFF

The firm has a permanent professional staff of approximately 35 specialists in management systems, planning, economics, statistics, industrial development, finance and revenue administration, cadastral surveys, personnel management, general systems analysis and computer technology, and polling and market research. In addition, it has specialists available in agriculture, health, education, labor, public works, transportation, and public safety.

EXPERIENCE

Since its establishment, the firm has undertaken more than 400 survey and installation projects in some 25 countries in Central and South America, Africa and the Caribbean, as well as in the U.S. mainland.

Examples of typical projects include the following:

Argentina. Development and installation of organization and systems improvements in the Ministry of Economy and Finance of the province of Buenos Aires.

Bahamas. Assistance in establishment and initial operation of the Ministry of Development and training of staff.

Bolivia. Training of planners on project analysis. Development of Manual for Project Analysis and Evaluation.

Costa Rica. On-the-job training of analysts in the preparation and evaluation of infrastructure projects.

Ecuador. Assistance in planning and implementing administrative reform program with emphasis on agriculture, health, and public works.

Ethiopia. Assistance in establishing and operating regional agricultural development organization serving small farmers.

Honduras. Design and installation of management improvement program for the national telecommunications system.

Virgin Islands. Development and installation of recommended new organization and computerized accounting system, including the training of staff. Survey of the Department of Health.

Puerto Rico. Organizational and systems studies of the Department of Health; comprehensive evaluation of family planning programs, including recommendations for improvements in delivery system. Preparation of a master plan for drug addiction control. Survey of selected agricultural programs and related organizational problems. Management survey of the Department of Education and intensive evaluation of selected programs.

Further description of these and other projects is available on request from Clapp and Mayne, Inc.

COMMUNITY SYSTEMS FOUNDATION (CSF)
2200 Fuller Road
Ann Arbor, Michigan 48105

PURPOSE

To engage in and promote research, demonstrations, training, and other activities in the management of community facilities and other resource systems for public use and benefit; and to disseminate information with respect thereto.

DESCRIPTION

From 1963, when it was established as a nonprofit corporation, to 1968, Community Systems Foundation formulated, implemented, evaluated, and documented some 1,100 management projects in health care, education, and state and local government areas in the U.S. Since 1968 the Foundation has carried out international projects. Foreign area projects are integrated closely with local nationals who are trained in project management.

STAFF

The staff varies depending on the project load. The current potential is for 20-25 full-time professionals covering the following areas: medical sciences, health and nutrition, agriculture, education, systems analysis, environmental sanitation, population planning, and engineering.

EXPERIENCE

Projects in health, nutrition, agriculture, environmental sanitation, and medical logistic systems have been carried out in the following countries: Colombia, Australia, Zaire, Bolivia, and Chile (Spanish-, French-, and English-speaking areas). In Cali, Colombia, Foundation staff members have been assigned as visiting professors at the Universidad del Valle

and have trained Colombians in project formulation, implementation, evaluation, and management.

PUBLICATIONS

An abstract listing, covering all available studies performed by CSF, and a bibliography of published articles are available on request.

UNIVERSITY OF CONNECTICUT

Institute of Public Service

Development Administrators Training Program (IPS/DATP)

1380 Asylum Avenue

Hartford, Connecticut 06105

PURPOSE

To educate manpower for development administration in developing nations.

DESCRIPTION

IPS/DATP started in 1961 by offering management development courses for midcareer civil servants from developing countries. Since then, the scope of work has broadened, and there are now four distinct aspects: (1) continuation of original work; (2) conducting training programs overseas; (3) involvement in training of public managers in state and local governments in the U.S.; and (4) providing overseas and U.S.-based consulting and organization and management development services.

IPS/DAPT provides the following services to organizations and individual participants:

- On-site consulting and problem-solving.
- On-the-job training experience.
- Design, implementation, and evaluation of training programs.
- Organization development and improvement.
- Regularly scheduled training programs.
- Specially designed programs--either at IPS/DATP's own facilities in the U.S. or at the client's location.

The regular programs consist of (1) a 20-week Project Analysis and Management Program which begins each January; (2) a 2-week Development

Administration Workshop given each September and January; and (3) U.S. state and local government programs.

The 20-week program in project analysis and management provides key administrators with the knowledge and skills necessary to evaluate, plan, and execute projects to promote financial, economic, and social development. Emphasis is placed on the development of project reports or appraisal, including plans for implementation and management systems for a project that represents a development problem in the organizations of the participants' country. During the formal training period, short visits are made to public and private agencies and corporations engaged in project analysis. At the conclusion of the classroom phase, individuals or teams are assigned to public or private project units for five weeks of on-the-job training, during which they have responsibility for a portion of the administration or analysis of a project.

The 2-week Development Administration Workshop is built around simulation that integrates selected development processes in a simulated developing country. Instructional components are introduced in the context of problems that commonly arise in the planning, design, and implementation of sectoral government projects. There are learning units on management tools and managerial behavior; development process; budgeting; network analysis (e.g., PERT); communication; team building; and organizational development. These inputs are programed so that the knowledge gained in each is immediately applied to sectoral projects. All regularly scheduled programs include the Development Administration Workshop as the first module.

The workshop has been designed as (1) an additional input into a larger program or (2) a separate management development unit for senior level managers. It is used to expose sectoral specialists in agriculture, education, health, family planning, engineering, etc., to techniques and concepts available in the management and behavioral sciences that are of proved assistance in developing and managing sectoral programs.

In the U.S., IPS/DATP is the secretariat for a professional association of state and local government management analysts, and it conducts workshops to train U.S. state and local government management analysts.

In-country programs basically are variations of the programs described above except they are more precisely tailored to the needs of the client, as illustrated under "Experience."

STAFF

There are ten full-time professionals at IPS/DATP; however, part-time staff from throughout the University is used for both regular and overseas programs and is generally drawn from the College of Agriculture and Natural Resources and the schools of Business Administration, Public Administration, Economics, and Education. The full-time staff at IPS/DATP provides only about 25 percent of the academic course content in

regular programs. Specialties of the full-time staff include preparation and analysis of project appraisals, organization and management development, training administration and design, labor relations, and personnel policies and practices.

EXPERIENCE

Kenya. Special adaptation of the IPS/DATP Development Administration Workshop for senior Kenyan officials involved in the management of rural development conducted in Nairobi in June 1973.

Afghanistan. A full-time financial and economic analysis program for the Industrial Development Bank of Afghanistan (IDBA) was presented to project analysts and loan officers of the bank during the summer of 1974. IDBA is IBRD-funded, and nine participants worked on projects that resulted in six final proposals to IDBA.

Nigeria. Project analysis and management courses and programs. Since October 1971, a consortium of the Universities of Connecticut, Ife (Nigeria), and Massachusetts has been cooperating on a jointly run program at Ife. Training includes a 15-week certificate program, graduate level courses, in-service training in state government, and a training-the-trainer component.

CAFRAD. African Training and Research Center for Administration in Development. Two-week simulation developed for senior level (permanent secretary) African administrators in 1972 which emphasized project preparation and management.

---. A five-man team presented a top managers program workshop in Ibadan, Nigeria, for CAFRAD, concentrating on such behavioral skills development as staff development, communication, and organizational development processes.

---. DATP staff members joined CAFRAD in Tangier, Morocco, to conduct a specially designed three-week Training of Trainers seminar for the top managers program.

Philippines. Local government training. Consulting services by IPS/DATP faculty members.

United States. IPS/DATP has a number of contracts under the federally funded Inter-Governmental Personnel Act to run management training at various levels for public officials in the New England region.

PUBLICATIONS

Fisher, Vinton D., Jr., and Heegaard, Flemming. "Some Experiences in International and Domestic Development Administration Training:

Learning Designs for Organizational Change."

---. "Training and Development: A Comparative Approach."

Heegaard, Flemming, and Odell, Malcolm J., Jr. "The Role of Management Training for Family Planning: A Case Study of a Training Program."

Heegaard, Flemming, and Wolf, James F. "DATAPLAND Simulation Exercise and Trainer's Guide."

Mayo-Smith, Ian. "Critical Skills Workshop--Evaluation Report."

---. "Development of Nigeria's Civil Service."

Odell, Malcolm J., Jr., and Heegaard, Flemming. "Toward Developing a Methodology for Combining Action, Research, and Participation in the Management of Family Planning Programs."

Sespaniak, Lawrence J., and Solomon, Morris. "Preparing, Evaluating, and Managing Development Projects."

---. "Strategy and Organizational Model for a World Wide Network of Centers for Project Development."

CORNELL UNIVERSITY

Graduate School of Business and Public Administration
Ithaca, New York 14850

PURPOSE

Training American and overseas graduate students in managerial and administrative skills for both the private and public sectors; continued research and advisory interest in overseas development and planning.

DESCRIPTION

The Graduate School of Business and Public Administration was established in 1946 and is privately endowed.

Training

The School offers a two-year course leading to a master's degree in business, public, or hospital and health services administration. Doctoral programs are also available. The core curriculum permits the student to acquire basic skills for an overseas career either in the public or private sector in combination with specialized work in agriculture, labor-industrial relations, economics, and other development fields. Course work may also be arranged in the Department of Asian

Studies and to improve area and language knowledge.

At the College of Architecture, a program geared particularly to problems of regional planning and development overseas may be designed.

Admission Requirements

Candidates must hold a B.A. degree from an accredited college, university, or technical school in the U.S. or abroad, and they must have fluent command of the English language. Approximately 225 students are admitted each year as candidates for the master's degree; approximately 15 students are admitted each year as candidates for the doctoral degree.

Research

The School's faculty members are continually engaged in a wide variety of research relevant to project management overseas. In the area of hospital and health services administration, work is being done on an international perspective on the socio-political aspects of health planning. In international affairs, work on problems of modernization and political development in less developed parts of the world, local and rural development, institution building in national development, and ethnicity in politics is being undertaken. In accounting and finance, research on the economic effects of deferred taxes and oil industry accounting is underway. The School's library has a large collection of overseas journals in business and public administration, and is supplemented by the University's collection of over four million volumes.

STAFF

There are 32 full-time faculty members in the following areas: accounting and finance, hospital administration, managerial economics, marketing, organizational behavior and theory, production and operations management, quantitative methods, public administration, transportation, and management information systems.

EXPERIENCE

Two faculty members are serving as consultants in organizational development to the government of Bahrain and to schools, general hospitals, and mental hospitals there; and two are completing studies on local and rural development in Turkey and on ethnicity in politics in the international field.

PUBLICATIONS

Professor Robert C. Lind has published articles on project management, including:

- Lind, Robert C. "The Benefit-Cost Approach to the Evaluation of Drug Control Programs," in Drug Classification for Public Action: Methods and Problems. Jossey-Bass, forthcoming.
- Lind, Robert C., with Blum, Kaplan, and Tinklenberg. "Elements of Drug Policy: International Implications for Crime and Justice," in International Review of Criminal Policy. Forthcoming.
- Lind, Robert C., and Lipsky, John. "The Measurement of Police Output: Conceptual Issues and Alternative Approaches," in Law and Contemporary Problems: Police Practices, 1973.

INQUIRIES concerning any of the School's programs or research areas may be directed to the Dean, and those concerning admission, to the Director of Admissions and Student Affairs.

CRESAP, MCCORMICK AND PAGET, INC. (CMP)
245 Park Avenue
New York, New York 10017

PURPOSE

To provide management consulting services to industrial and commercial companies, nonprofit institutions, and government units in the U.S. and abroad.

DESCRIPTION

CMP, founded in 1946, has offices in New York, Washington, D.C., Chicago, San Francisco, Los Angeles, Brussels, Melbourne, and Sao Paulo. It provides a broad range of services, including: long-range planning; economic feasibility studies; area industrial development; facilities planning; physical distribution; electronic data processing; management information systems; manpower planning and development; classification and compensation plans; systems analysis; organizational appraisal; marketing and sales management; and production planning and control.

In rendering these services, CMP views its role as an "agent of change," combining analytical skill with the knowledge and experience of specialists to develop practical programs that can be carried out within the limits of available resources. CMP also assists in implementing recommended programs.

STAFF

Partners and professional staff members number more than 150. Specialized staffs serve retailing and wholesaling establishments, banks,

insurance companies and other financial institutions, schools, colleges, hospitals, and government units at all levels.

EXPERIENCE

CMP has served clients in many countries, including Australia, Belgium, Bermuda, the Dominican Republic, Great Britain, Israel, Mexico, Turkey, West Germany, Thailand, Ethiopia, France, Italy, and Saudi Arabia. Representative clients are the following:

Transportation. Consolidated Freightways, Inc., Chicago and Northwestern Railway Company, Eastern Airlines, Inc., The Greyhound Corporation, Holland-America Line, The New York Central Railroad Company, and Trans World Airlines, Inc.

Education. The University of Alberta (Canada), Athens College (Greece), University of California, Carnegie Institute of Technology, Harvard University, Ohio Board of Regents, Robert College (Turkey), Stanford University, Yale University, Baltimore Public School System, Idaho Board of Education, and the Institute of International Education.

Hospitals and Health Agencies. Cedars-Sinai Medical Center (Boston), Georgetown University Hospital and Medical School (Washington, D.C.), L'Institut Edith Cavell (Belgium), Lenox Hill Hospital (New York), The Mayo Clinic and Institutions, and the Rockefeller Institute for Medical Research.

Government. U.S. Departments of Commerce; Defense; Health, Education and Welfare; Labor; State; and Treasury.

PUBLICATIONS

Brochures describing the general and specialized services of the firm are available on request.

DAY & ZIMMERMAN, INC. (D & Z)
Consulting Services Division
1700 Sansom Street
Philadelphia, Pennsylvania 19103

PURPOSE

Management consultation, engineering, construction, and operations services.

DESCRIPTION

Established in 1901, Day & Zimmerman now includes subsidiaries Barrington and Co., Fry Consultants, and Social Research, with branch offices in New York, Chicago, and Washington, D.C. D & Z is a multi-division (i.e., engineering, architecture, construction management, plant operation, etc.) professional services firm. The Consulting Services Division has prime responsibility for serving international development programs, although the resources of other divisions are also available. This division offers project management services in the following fields: organization and management, marketing and demography, public administration, economic evaluation, behavioral sciences, attitude and morale, compensation, traffic and transportation, industrial engineering, operating controls, information systems, and utilities.

STAFF

At the several locations there are some 80 professional consultants who specialize in studies in the areas listed above. Also available are several hundred professionals in other D & Z divisions representing essentially all of the physical disciplines.

EXPERIENCE

AID-Financed Activities

Argentina. Reorganization, salary evaluation, and management control studies.

Puerto Rico. Personnel training.

Taiwan. China trade productivity center.

Other Activities

Puerto Rico. Administrative systems for Government Development Bank. Administrative systems for the Department of Addictive Services. Utility rates for the Aqueduct and Sewer Authority.

Guatemala. School systems programs.

D & Z has worked for other U.S. government agencies and state and local governments. Private clients have included industrial companies, transportation systems, public utilities, and financial institutions.

DBA SYSTEMS, INC.
325 Fifth Avenue
Indialantic, Florida 32901

PURPOSE

To provide construction consultant support to management.

DESCRIPTION

DBA Systems has been working in the field of construction management since its establishment in 1963. A majority of the work has been performed in construction coordination of building projects and related site work. DBA concentrates on control of time and cash flow, utilizing the latest network management techniques and computers. Resources include experienced construction-oriented CPM consultants, a series of fully operational CPM programs and experienced programmers, and an in-house XDS Sigma 5 computer. DBA has three main facilities: Indialantic, Florida, where the company headquarters, Management Science Division, Computer Sciences Division, and Photogrammetric Services are located; Melbourne, Florida, the location of the Engineering and Manufacturing Division; and Lanham, Maryland, where the Washington Division is located.

STAFF

The staff totals 100, of whom 21 are engineers. Most personnel are located at the Indialantic facility. Those in the Management Science Division are engaged primarily in project scheduling and cost analysis through the use of CPM, PERT, and other management techniques for the construction industry.

EXPERIENCE

DBA has participated in the use of management systems at John's Island, a 3,000-acre beach front community in Florida. At Palmas del Mar, in Puerto Rico, DBA is supplying the over-all project management systems, a multilevel management reporting system, as well as detailed CPM for planning and construction of a tennis village, beach recreation areas, condominiums, hotels, water and sewage facilities, roadways, etc. Similar management services have been performed by DBA in connection with the construction of desalting plants in the West Indies and the planning, design, and construction of numerous projects in Florida, Alabama, Tennessee, Kentucky, Georgia, Missouri, and Mississippi.

PUBLICATIONS

"CPM and Cost Control," Florida Builder, March 1971.

"CPM 1972 Style," Florida Contractor and Builder, August 1972.

DECISION SCIENCES CORPORATION (DSC)
Benjamin Fox Pavilion, Room 814
P.O. Box 1010
Jenkintown, Pennsylvania 19046

PURPOSE

To help organizations grow more efficiently and capitalize on advanced technology more effectively.

DESCRIPTION

DSC was established in 1969 as an international management and technical consulting organization. It concentrates on the decision process, using advanced analytical tools and decision techniques to evaluate complex situations. Its specialties include: strategic operations planning; marketing research and planning; information systems; urban and regional systems; management sciences; and education and technical services.

STAFF

DSC has 25 full-time professionals.

EXPERIENCE

Major DSC programs include:

- Total management assistance to firms with loans from the Small Business Administration. (DSC is contractor for Region III of SBA.)
- Complete five-year market, product, and organizational plan for a new subsidiary of Raytheon Corporation.
- Total organization and operations study to improve internal efficiency and productivity. (The client approved implementation of recommended changes.)
- Assessment of technological innovations in food processing and distribution in the 1970s.
- Assisted a number of U.S.-based organizations in identifying European and Southeast Asian market opportunities.
- Projection of airport facilities development over a 20- to 30-year period (for Northrop Corporation).
- Design of comprehensive distribution system for movement of

forest products from northwest U.S. (for P. S. Ross & Partners).

- Developing and implementing a National Energy Model (Total Energy Resource Analysis) to assist American Gas Association in evaluating gas supply and demand and to provide forecasting capability.
- Comprehensive study of EDP terminal and display requirements for specific applications.
- Design of management information system for project control of electronic equipment manufacturing.
- Developed and presented specialized management training programs throughout the world.
- Conducted specialized training seminars in data processing and management sciences.
- Designing, developing, and implementing urban management system for the city of Toronto and the Department of Municipal Affairs of the province of Ontario.
- Developed and demonstrated feasibility of NUCOMS (New Communities Simulator) to enable a full evaluation of proposed programs under the Housing and New Communities Development Act for the U.S. Department of Housing and Urban Development.
- Educational and training programs for Jamaican executives on planning requirements for economic development of Jamaica and the city of Kingston.
- Consultants to the U.S. Atomic Energy Commission on preliminary planning for the introduction of nuclear desalting plants in the Middle East.
- Participated in an economic planning conference with 14 West African countries on industrial studies.
- Study to reduce the cost of information flow, to increase the effectiveness of information utilization, and to identify possible changes in information flow which would improve the effectiveness of operations (for DuPont of Canada).

INQUIRIES should be directed to Executive Vice-President.

DECISION TECHNOLOGY CORPORATION (DETCO)
10605 Concord Street
Kensington, Maryland 20795

PURPOSE

To conduct research to determine why most project management systems fail or why they produce poor results; to discover what must be changed to eliminate the causes of these failures; to design and develop basic project management concepts, criteria, and procedures which will consistently produce results that have been sought by responsible management personnel both in government and industry for many years; and finally, to develop a consulting and training business which specializes exclusively in the field of project management and which utilizes the results of the company's special research efforts and resultant expertise.

DESCRIPTION

DETCO was established in 1969, and it offers the following services both for government and industry:

- Conducts basic research and development in project management concepts, principles, organization, operational systems, and procedures, and in related psychological aspects.
- Develops project management training courses, seminars, and workshops.
- Provides project management consulting services.
- Designs, develops, and implements project management procedures and related organizational changes.

During the period 1970-73, DETCO associates were engaged in a study of project management as practiced throughout the U.S. in government and industry. It was concluded that traditional methods of project management would never work properly, regardless of how much management attention and emphasis might be applied to them and regardless of how much computer support might be provided. As a result, an approach to project management was developed which stresses the real objectives of management, extreme simplicity, extensive use of easy-to-understand graphics, hi-lo value and management-by-exception concepts, rejection of computer printouts, insured utility, and a building block or "one-step-at-a-time" approach.

STAFF

The staff consists of specialists in the following fields: computer applications, project planning systems, project control systems, behavioral sciences, training, and accounting support. Staff personnel in DETCO

have held other positions during the company's research phase. As DETCO becomes more involved in the commercial project management market, the staff is gradually being converted to full-time employees.

EXPERIENCE

DETCO conducts a bimonthly Basic Project Management Seminar for the American Management Association at various locations throughout the U.S.

The firm has a contract with the U.S. Civil Service Commission, Management Sciences Training Center, to conduct courses in project management.

It has also conducted project management seminars for the AEC and associated contractors in Richland, Washington, the Defense Communications Agency (DCA), and the U.S. Department of Agriculture. It is currently preparing to present courses to the Stabilization and Conservation Service and the Department of Housing and Urban Development. The following is an outline for the DCA seminar:

- Introduction to project management.
- The basic project management cycle.
- Project management organization and policies.
- Planning a project; developing the schedule.
- Planning--developing the total plan.
- Implementing the project plan.
- Managing the baseline plan during work in progress.
- Controlling project schedules and costs.
- Progress control with earned value.
- Project management reports.
- Briefing management on project status.
- Computer support of project management operations.
- Integrating schedule, cost, and earned value reports.

INQUIRIES should be directed to President, DETCO.

UNIVERSITY OF DENVER
Denver Research Institute (DRI)
University Park Campus
Denver, Colorado 80210

PURPOSE

To broaden and strengthen the research activities of the University of Denver.

DESCRIPTION

DRI was established in 1942. Because it is part of a university and fully integrated into its academic programs, DRI is able to provide a full spectrum of training and professional development, ranging from highly specialized short-term research training in specific technological or scientific techniques, to research institute management or administrative procedures, and to academic programs leading to Ph.D. and post-doctoral opportunities.

DRI is totally supported by contract research with industry and government agencies. Its principal thrust has been directed toward applied R&D. It has performed research for well in excess of 200 industrial organizations and, thus, trainees and Ph.D. candidates are involved in real world problems of the kind seldom available through the conventional university system. Trainees and students from other countries are encouraged to bring problems of specific interest with them. During the past fifteen years, a substantial number of graduate students from developing countries have received their research training on contracted projects of an applied nature.

The DRI Office of International Programs focuses on the following activities with industrial research institutes and centers of developing countries:

- Assessment, planning, and management of IRIs.
- Management development and training of IRIs.
- Technology assessment and utilization.
- Organizational and fiscal management.
- Industrial innovation.

STAFF

The staff totals 357, of whom 173 are full-time professionals and 184 are support personnel, technicians, and graduate research assistants. The professionals are distributed among the administration office, nine operating divisions, and two departments, as follows:

Administration	6	Mathematical Sciences	7
Center for Social R&D	12	Mechanical Sciences &	
Industrial Economics	24	Environmental Engi-	
International Programs	5	neering	28
Chemical	17	Mettalurgy & Materials Sci.	14
Electronics	24	Physics	30
Computer Center	5	Design and Fabrication	<u>1</u>
		<u>Total</u>	<u>173</u>

EXPERIENCE

Over 1,300 research investigations have been conducted by DRI for industrial and governmental sponsors both in the U.S. and in developing countries. Representative consulting, training, and research assignments in project management involving less developed countries which have been undertaken in the last three or four years are listed below:

- A two-year comparative analysis of some 60 industrial research institutes in many developing countries is nearing completion by DRI. The principal objective has been to investigate the interaction between these institutes and their contiguous industrial sectors.
- Working relationships have been established with institutes in Argentina, Brazil, Colombia, the Dominican Republic, Ghana, Guatemala, India, Indonesia, Iran, Kenya, Korea, Malaysia, Nigeria, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, Trinidad-Tobago, and Turkey.
- DRI has initiated a five-year program in which techniques are being developed to demonstrate methodologies for closer coupling of industrial research institutes with the industries of selected developing countries.
- The Sao Paulo State Council of Technology (CET) has contracted with DRI to provide assistance in institutional development to the Instituto de Pesquisas Tecnologicas (IPT) over a five-year period. The primary objective is to assist IPT in strengthening, and improving its interaction with Brazilian industry and enhancing its contributions to the industrial growth and development of Sao Paulo and Brazil.

Formal institute linkages with DRI, involving management development complementary to other programs, have been established as follows:

Instituto Centroamericano de Investigacion y Tecnologia Industrial (ICAITI), Guatemala. Management consultation and technical assistance. Short- and long-term training of ICAITI staff.

Instituto de Pesquisas Tecnologicas (IPT), Sao Paulo, Brazil. Technical assistance, economic evaluation, and short- and long-term training. Assistance in management problem identification.

Federal Institute of Industrial Research (FIIR), Lagos, Nigeria. Technical and management assistance to aid FIIR in conversion from subsidized institute to contract-supported institute.

Instituto de Investigaciones Tecnologicas (IIT), Bogota, Colombia. Technical and management assistance for promotion, program development, and integration of research results into the industrial sector.

Applied Research Center, Middle East Technical University (METU), Ankara, Turkey. Management assistance and institute operations training.

In all of the above linkages, DRI has agreed to serve as a plug-in point to the U.S. data banks of technology. Further, DRI has agreed to cooperate with the OAS Pilot Program on Technology Information Dissemination.

DRI has recently designed and conducted experimental executive development programs in Denver, under AID sponsorship, for officials of certain countries. These include:

- Development of a new organizational structure for the creation of the Indonesian National Research Corporation (three months, 1972).
- Management of IRIs in preparation for the presentation of similar courses in Brazil (September 1972).

DRI has also initiated, under AID's sponsorship, a series of intensive research institute management development workshops in various nations with major emphasis directed toward improving interaction between research institutes and industry, including evaluation of those external and internal forces which influence such interaction.

DRI special-purpose workshops and training programs have included:

- Program budgeting and project fiscal controls; and program development and proposal preparation, ICAITI, Guatemala.
- Industrial Research Institute industrial liaison, information management and networking; and IRI Management Workshop, Denver.

INQUIRIES should be directed to DRI's Office of International Programs.

DEVELOPMENT ALTERNATIVES, INC. (DAI)
1823 Jefferson Place, N.W.
Washington, D.C. 20036

PURPOSE

To provide research and consulting services in economic development, growth, and modernization.

DESCRIPTION

Since its organization in 1970, DAI has specialized in four fields:

- Design of projects to aid small farmers or the rural poor.
- Design of projects to include women as a specific element in the

decision-making and production functions.

- Design and implementation of evaluation systems to determine (1) costs and benefits, over time, of development projects, (2) factors most likely to explain project success or failure, and (3) development "output," in the broad sense of the term.

- Training of local area personnel to be directly involved in the identification and design of projects, the management of projects (including accounting and administrative systems), and the collection of data to be used to evaluate project performance and success.

STAFF

There are eight permanent, full-time professionals on the staff. They specialize in the following areas: information systems, rural development, public finance, energy and environment, urban development, small farmer credit, agricultural extension, equal opportunity programs, personnel counseling, training, and management, administration, women in international development, quantitative analysis, and computer-assisted research.

EXPERIENCE

AID-Financed Activities

Paraguay, Bolivia, Peru, Ecuador, Colombia, and Mexico. Collected data for a project designed to involve small agricultural holders in the process of and benefits from rural development. Knowledge of the Spanish language was necessary for this work.

Peru. Design of a specific information evaluation system for development projects for ORDEZA/RDD.

Gambia, Nigeria, Ghana, Lesotho, and Kenya. Research on development projects reported as successful in working with small holders.

Thailand. Examination of indicator system to evaluate development impact of large rural development programs.

Other Activities

Indonesia. Development of agribusiness projects in poultry-raising, cattle feedlots, and cattle shipments. Knowledge of the Indonesian language was required.

PUBLICATIONS

"Impact Assessment Systems."

"Information Systems for Rural Development Projects" (impact assessment).

"Research on Effective Local Action."

DEVELOPMENT AND RESOURCES CORPORATION (D & R)
455 Capitol Mall
Sacramento, California 95814

PURPOSE

Development and Resources Corporation is an international consulting organization serving both the public sector and private enterprises with managerial and technical services for the planning, development, and utilization of natural and human resources.

DESCRIPTION

D & R was established in 1955. It provides complete services in the following areas: defining programs, planning, management, economics, business, engineering, agriculture, geology, environment, and other technical areas. It also provides assistance in the development (including the training of personnel) of institutions for the implementation of programs as well as supervision and monitoring of the construction of physical works required by these programs.

D & R has extensive experience in defining planning goals and objectives, developing plan concepts, formulating study design, defining specific activities and tasks to be accomplished, and managing ongoing programs. Included as components of development programs are monitoring, assessment, and evaluation of programs for determining the economic and social effects of changing life modes due to improved agricultural practices, improved sources of water and power, increased educational opportunities, and improved health facilities.

STAFF

D & R has a total of 250 personnel. The great majority are distributed among the following offices: Technical Program; Economics; Agriculture, Engineering, and Environmental Sciences; Regional, Tehran; and Projects, Brazil and Iran.

EXPERIENCE

AID-Financed Activities

Malagasy Republic. Economic opportunity study of proposed beef project.

Mekong Delta Region, Vietnam. Investigation and preparation of a comprehensive development program on five million acres.

Thailand, Cambodia, Laos, and Vietnam. Advisor to the United Nations- sponsored committee for the coordinated development of the 260,000-square-mile Lower Mekong River Basin.

Laos. Determining the technical facilities for and economic possibilities of establishing agriculturally oriented industries.

Nepal. Planning, developing, implementing, and evaluating the Public Administration.

Other Activities

Dominican Republic. Advisory assistance to a government commission for integrated development of the Yaque Valley.

Afghanistan. Comprehensive examination and subsequent planning of an agricultural program to improve agricultural production of the Kunduz-Khan Abad River Basin for FAO.

Western Australia. Planning for integrated regional development of the 100,000-square-mile Ashburton/Philbara area.

Italy. Advisory assistance to Cassa per il Mezzogiorno's program for the economic and social development of southern Italy.

Ivory Coast. Participated with the government in the initial resettlement program of nearly 100,000 villagers whose lands were to be flooded by the Hossou Reservoir on the Bandama River.

Iran. Dez Watershed Resource Management Plan--Ministry of Natural Resources. National Agriculture Research Plan--Ministry of Agriculture and Natural Resources. Comprehensive Water Resources Planning Program--Ministry of Water and Power. Planning, design, construction, and management of (1) dam and power generation system with transmission lines and switching and (2) substation facilities. Agricultural Credit Management Program for 500 farmers in Khuzestan.

DEVELOPMENT ECONOMICS GROUP (DEG)

100 Halsted Street
East Orange, New Jersey 07018

PURPOSE

To offer consulting services in project and program management, planning, implementation, and administration to governments and industry.

DESCRIPTION

DEG was established in 1964 as the economics division subsidiary of the Louis Berger Group of companies, which operates in 37 countries overseas on all the continents. From its headquarters in East Orange, New Jersey, it controls 31 branch offices and 6 wholly owned operating subsidiaries in various countries.

DEG offers the following consultant services: project management; master plans and implementation programs for regional and national economic development; master plans and implementation programs for agricultural development; transportation master planning; housing programs; environmental impact analysis; planning and managing of information systems; resource development; manpower training programs, and administration and organization development.

STAFF

DEG employs a permanent staff of 125 economists, planners, management specialists, and related technicians.

EXPERIENCE

The Development Economics Group and its affiliated companies have executed over 700 major projects and programs in 49 countries during the past five years. A representative group of projects and programs are described below:

Meghna Region of Bangladesh; Jiroft and Gorgan Regions of Iran; Northeast Thailand; Byumba Region of Rwanda; Tabora Region of Tanzania; Parana River Basin in Argentina, Uruguay, and Paraguay; Yaguaron River Basin, Uruguay and Argentina; and Snake River Basin, United States. Master plans and implementation programs for agricultural and water resource development.

Argentina; Brazil; El Salvador; Guatemala; Nicaragua; Panama; Central African Republic; Ghana; Ivory Coast; Nigeria; Senegal; Sudan; Togo; Uganda; Zaire; Indonesia; Philippines; Vietnam; Cyprus; Turkey; and the United States. Implementation of transportation coordination programs (ports, rail, highways, and air).

Laos; Thailand; Rwanda; Togo; and Iran. Preparation and assistance in the implementation of national economic development plans.

Argentina; Brazil; Colombia; Dominican Republic; El Salvador; Guyana; Honduras; Mexico; Nigeria; Indonesia; and Pakistan. Design and construction of housing programs.

Brazil; Honduras; Peru; Nigeria; Philippines; Thailand; and the United States. Planning and implementation of urban development programs.

Indonesia; Iran; Philippines; Ivory Coast; Senegal; Sudan; Zaire; Cyprus; Turkey; Yugoslavia; and the United States. Manpower development training programs and administrative and organization studies.

Haiti; Paraguay; and the United States. Implementation of water and sewage management programs.

Philippines; France; Sweden; Yugoslavia; and the United States. Environmental management programs.

PUBLICATIONS

The completion of a project is marked by the publication of a final report. In addition, each year DEG prepares 20-25 professional publications and position papers dealing with a wide range of economic, environmental, and technical subjects.

INQUIRIES should be addressed to Director, DEG.

DIALOGUE SYSTEMS, INC. (DSI)
55 West Forty-fourth Street
New York, New York 10036

PURPOSE

To improve an organization's efficiency and productivity by improving the human environment.

DESCRIPTION

Dialogue Systems is a management consulting firm concentrating on the development of human resources. DSI started in 1970 as a manpower and training organization, providing technical, consultative services to community-based groups. The scope has now broadened both in the public and private sectors. The firm's activities involve research, training, education, communications, organizational planning, community relations, urban affairs, manpower and economic development, and skills upgrading.

STAFF

DSI has eight full-time professionals as well as associates, mostly in the social sciences. Their specialties include economics, manpower, planning, evaluation, training and education, and psychology.

EXPERIENCE

Recent DSI consulting contracts include those listed below.

AID. Contract to improve ability of decision-makers in less developed countries to deal with urban development problems. Work required research on relevant U.S. experience, publication of a compendium, and production of a film on the findings.

Department of Housing and Urban Development (HUD). Conducted studies on social service agencies and their delivery systems for redevelopment projects. Also evaluated human resources utilization in depressed areas and designed systems for improving investments in people.

U.S. Department of Labor, Institute of Public Administration (IPA). Consulting with IPA on problems and prospects of job skills upgrading in the private sector. The contract, funded by the U.S. Department of Labor, involves the analysis and evaluation of individual organizational and manpower programs in manufacturing and service industries, and subsequent designing of replicable models for better utilization of the organizations' human resources.

State of New Jersey. Consultant to the state of New Jersey for the entire Model Cities Program, involving evaluation of training for community advisory boards and design and delivery of technical training assistance to all cities in the program.

Waterbury, Connecticut. Consulting with an OEO-funded organization in setting up small, autonomous local development corporations. Activities include research, planning, analysis, design, and implementation of staff and community board training programs, and on-site technical assistance in management information systems.

Virgin Islands. Consultants to the Department of Social Services on problems of juvenile delinquency and counselor training. Designed and implemented staff training program.

Education. Designed and implemented programs for school evaluation, desegregation, improvement of racial conditions, more effective communications, and improvement in school management. Consultants to the New Jersey State Department of Education; Hahnemann Hospital and Medical College in Philadelphia; and the Milwaukee Board of Education. DSI is presently involved in the development of an organization to serve school systems of the nation's largest cities, with screened and evaluated urban-oriented materials.

Evaluation. Evaluated programs both in the private and public sectors, ranging from studies of the impact of social programs on a community to cost-benefit analyses on investments in human resources. Also designed and implemented numerous workshops on evaluation for both professional evaluators and community groups.

Community and Economic Development. Assisted community groups in designing comprehensive programs for self-help economic development, including proposal development, funding, training, marketing, and long-range planning.

Business Planning and Execution. Consulted on a wide range of business operations, from planning and sales forecasting, through manufacturing, advertising, public relations, marketing, sales, labor relations, contract negotiations, organization development, and training.

Industrial Training. Designed and implemented comprehensive industrial training programs, including manufacturing skills training, supervisory development, management development, and entry-level upgrading.

Environmental Affairs. Consulting on environmental education, corporate communications, governmental relations, and community ecology programs with a variety of organizations, including an ecology department of a leading packaging company.

DOXIADIS ASSOCIATES INTERNATIONAL (DA)
24 Strat. Syndesmou Street
Athens 136, Greece

DOXIADIS ASSOCIATES, INC. (DA)
1058 Thomas Jefferson Street, N.W.
Washington, D.C. 20007

PURPOSE

To provide consultant services on problems of development and ekistics--a science for examining all human settlements from every possible viewpoint.

DESCRIPTION

DA (Athens), established in 1951, and DA (Washington, D.C.), established in 1959, study human settlements from three different perspectives: geographic dimensions (from a single room to a metropolis); related disciplines (such as the economic and social aspects of the settlement); and sequence of procedure (from analysis, to the formulation of policies, and to subsequent synthesis, programs, and plans).

The services offered by Doxiadis Associates International are listed below.

Fields of Specialization

Development. Agriculture, hydronomy, industry, commerce, tourism, transportation and communication, housing, buildings, education, and other services.

Ekistics. Regions, metropolitan areas, cities, small towns, and villages.

Types of Studies

Economic, Social, and Administrative. Planning and programing, economic feasibility, marketing, and organization and management.

Technological. Research and surveys, environmental and architectural design, engineering (electrical, transportation), water supply and irrigation, and roads, ports, and airports.

STAFF

DA has a total of 429 employees, of whom 40 percent are professionals, including urban planners, architects, engineers, landscape architects, economists, social scientists, and financial analysts.

EXPERIENCE

Representative projects include the following:

Zambia. Master plans for Chipota, Mouzu, 16 rural townships, and Kafue and Lusaka.

Iran. Five-year national program for housing.

Iraq. Master plan for Kirkuk in conjunction with the National Center for Engineering and Architectural Consultancy of Baghdad.

Saudi Arabia. School building program; master program and plan for Riyadh.

Nigeria. Study of development of major urban centers, including a review of organizational and institutional framework necessary for implementation.

Ghana. Development of the new town of Tema.

Argentina, Bolivia, Brazil, Paraguay, and Uruguay. Development of the River Plate Basin.

Languages utilized include Arabic, English, French, German, and Spanish.

PUBLICATIONS

Publications and reports are available for all the above mentioned projects.

INQUIRIES should be directed to President, Doxiadis Associates International, Athens.

ENVIRODYNE PLANALOG, INC.
Project Management Services
1400 Mill Creek Road
Gladwyne, Pennsylvania 19035

PURPOSE

To design and install total systems for project management.

DESCRIPTION

Originally established as Management Studies, Inc., in 1962, Envirodyne Planalog provides the following services:

- Seminars and workshops for training in project management.
- Consulting services to prepare critical path network plans for all types of projects.
- Planalog equipment for visually displaying and automatically calculating critical path project plans.
- Management services to design and install integrated project management systems with operating procedures detailed in a systems manual.

In addition to training and consulting, Planalog distributes simplified project management systems for planning, scheduling, and controlling all kinds of projects. Based on the Critical Path Method (CPM/PERT), the Planalog System is a wall-mounted instrument that visually displays project plans which permit management to control more effectively and reschedule vital programs. The Planalog System is designed to help everyone involved in a project understand his responsibility for meeting project goals and schedules.

STAFF

There are 10 staff members of whom 6 are full-time professionals. In addition, there are more than 20 part-time associates.

EXPERIENCE

More than 1,500 organizations in industries such as agriculture, mining, engineering, transportation, manufacturing, and government have installed Planalog Management Systems. Regular seminars are conducted for organizations such as the American Management Association, Advanced Management Research, the U.S. Civil Service Commission, and many private companies, for example, Corning Glass, Xerox, and FMC.

During the past six years Planalog has conducted over 20 training courses sponsored by AID and the World Bank for more than 500 government and industry executives from developing countries. The firm also has more than five years experience in the field of project feasibility studies in developing countries.

PUBLICATIONS

Under a 1974 contract with AID, Planalog is developing information for publications on resources in project management training for developing countries.

EXECUTIVE MANAGEMENT SERVICE, INC. (EMSI)
2201 Wilson Boulevard, Suite 404
Arlington, Virginia 22201

PURPOSE

To provide management, training, consulting, and research services to governments--international, national, and local--wherever problems exist. Consulting and research involve program planning and evaluation, organization and methods, financial management (including budgeting, accounting, comptrollership), personnel management (including classification and pay, testing and selection, labor relations), and training.

DESCRIPTION

EMSI specializes in the administration of projects and/or the evaluation, design, and installation of systems needed by top level executives in such projects. Primarily management-oriented, the staff is also experienced in executive and consulting work on major projects involving:

- Forest resource development and production.
- Food products manufacturing and marketing.
- Port (sea and air) development and operation.

- Public building construction.
- Industrial development.
- Air transportation.
- ADP installation and administration.

EMSI has consulting relationships with Spanish-speaking, U.S.-trained medical administrators--both hospital and public health--and with U.S. research and engineering management specialists.

STAFF

The staff consists of some 40 professionals with consulting and executive level operating experience at national and local levels in the management specialties mentioned. More than half have had overseas experience and have worked using Spanish, French, or Portuguese.

EXPERIENCE

Puerto Rico. Evaluation of the Model Cities Administration in San Juan.

Florida. Extension of the Pinellas County/St. Petersburg airport to incorporate a combined airport/industrial park.

Illinois. Reorganization of the staff of the Secretary of Transportation.

U.S. Department of Agriculture. Development of nationwide staffing criteria and organizational structure for delivery of field services.

U.S. Manpower Administration. Development of a grants management program.

EXOTECH SYSTEMS, INC. (ESI)
1200 Quince Orchard Boulevard
Gaithersburg, Maryland 20760

PURPOSE

To provide research, advisory, consulting, and training services in management, economics, finance, statistics, transportation, education, manpower, industry, infrastructure, and scientific fields.

DESCRIPTION

ESI was established in 1955. Its services cover a wide range, including prefeasibility and feasibility studies, implementation, training, technical assistance, and related work in economics and social development.

The firm has worked with a variety of industries, from conception to operations, in the following fields: agriculture; food processing; national development planning; project evaluation; transportation (all forms); taxation; tariffs; trade promotion; projects to implement national plans; infrastructure projects in health, education, and social security; comprehensive regional and area development; development banking; national statistical programs and censuses of population, housing, agriculture, and industry; and small and medium size industry development.

In addition, ESI provides assistance to management in the following areas: program analysis; research and operational problems; estimates, forecasts, and training requirements for national and sector manpower requirements, ranging from mechanics and highway maintenance to scientific professions; market research, both at industry and commodity levels, locally and in foreign markets; and design, operation, and training with respect to data processing systems.

ESI also develops advanced hardware to be applied to space, military, pollution, and health problems.

STAFF

ESI has up to 50 staff members and additional consultants. Its personnel has capabilities in all the fields in which the firm has worked: economists; statisticians; sociologists, industry specialists; agricultural, mechanical, electrical and civil engineers; management specialists; specialists in health and education; systems designers; and data processing specialists.

EXPERIENCE

ESI has carried out projects for industry, trade and professional associations, law firms, the U.S. government, and international agencies (including the World Bank and the Export-Import Bank). The geographic areas covered have been: the U.S., Mexico, Costa Rica, Panama, Colombia, Ecuador, Peru, Chile, England, France, Italy, Germany, Ghana, Malawi, the Sudan, Chad, India, Iran, Taiwan, Japan, Indonesia, Ryukyu Islands, Korea, Vietnam, and Tunisia.

AID-Financed Activities

Indonesia. Feasibility studies on specific development projects; training of local personnel in project development, implementation,

and coordination; and preparation or review of invitations for engineering and construction services.

Korea. Development of a national program for farm mechanization.

Chile. Regional development planning and industry opportunities.

Ecuador. Management and economic appraisal of public enterprises and state-controlled monopolies to guide the country's future development policies.

Peru. National resources planning and utilization for both physical and human resources for application to all government agencies.

Tunisia. Evaluation of national industrial development plan.

El Salvador. Establishment and operation of tuna fish processing and canning facilities.

Nyasaland. Preparation of long-range development plans for transportation sector and for trades training.

Malawi. Economic and engineering survey of proposed lakeshore road.

India. Trade promotion and improvement of shipping.

Other Activities

The firm conducted studies overseas under contract with foreign governments financed by IBRD. It also prepared a study for the Export-Import Bank and an agricultural development feasibility report for the government of Iran.

In addition to these direct overseas assignments, ESI has been engaged by other U.S. government agencies, foreign governments, private firms, and nonprofit institutions to conduct research studies and provide assistance on a variety of economic, statistical, and manpower problems.

PUBLICATIONS

"Coordination of Programs in Economic, Physical, and Human Resource Development." Economic Opportunity Council's Working Group.

"Economic and Managerial Appraisal of Ecuador's Government Enterprises." AID.

"Farm Mechanization Program for Korea."

"Fiscal Policy, Organization, and Tax Enforcement in Korea and Vietnam."

"Industrial Development in Tunisia."

"Industry Profiles."

"The Korea Statistics Project." AID.

"A Program for Encouragement of Private Enterprise in Chile." AID.

"Toward Expansion and Diversification of Ecuador's Exports." AID.

EXPERIENCE, INCORPORATED (E.I.)

1930 Dain Tower

Minneapolis, Minnesota 55402

PURPOSE

Counseling at the decision-making level to agribusiness industries, government, farm cooperatives, financial institutions, and foundations on agricultural policy and programs.

DESCRIPTION

E.I. was established in 1963 by ten senior business executives, economists, and scientists with broad collective experience in agriculture, business administration, land economics, and sales management. Its officers and consultants have had broad international experience with major emphasis on agricultural production, processing, marketing, distribution, and finance.

The specialties emphasized by E.I. are: agroindustrial surveys; feasibility studies; marketing research; economic research; financial and technical consultation; institutional development studies; agricultural management seminars and training programs; and project management.

STAFF

E.I. has 20 full-time professionals and over 150 associate consultants with capabilities for implementing and managing projects in a wide spectrum of agricultural disciplines and expertise: agricultural planning; crop production; irrigation and drainage; agricultural machinery; pesticides and fertilizers; food processing, production technology, dietary fortification, and nutrition; production and processing of livestock and poultry; plant location, layout, and evaluation; by-product utilization; distribution and storage; marketing and market evaluation; environmental studies; transportation; financial systems and procedures; formation and operation of cooperatives; mergers, sales, and acquisitions; and foreign economics and trade development.

EXPERIENCE

AID-Financed Activities

Ethiopia. Analysis of past and present operations with recommendations for future operations of the Ethiopia Grain Corporation.

---. Study and development plan for increasing feed grain and pulse production for export.

Tanzania. Study and development plan to establish a seed multiplication and distribution operation.

---. Six-man E.I. team assisting the government to develop, operate, and manage a modern seeds industry.

Chad, Cameroon, Nigeria. Regional study of the need for roads and a bridge in Lake Chad Basin (with King and Gavaris Engineers).

Botswana. Study to determine the economic and technical feasibility of establishing additional meat processing facilities.

Thailand. Study of the country's nutritional needs with particular emphasis on protein deficiencies and requirements.

Kenya. Study to determine the economic and technical feasibility of establishing a new abattoir (with Leo A. Daly).

Guyana. Economic and technical study to determine a ten-year plan for the development of a dairy industry.

Other Activities

Bangladesh. Three-man E.I. team is in the initial stages of assisting the government to implement a modern cereal seeds program under IDA credit.

Nicaragua. Study outlining grain storage needs.

---. Analysis of existing cottonseed processing facilities and recommendations for improving operations.

United States. Management of a 45,000-acre purebred Hereford breeding ranch.

---. Feasibility study, plant location, design, and construction supervision of a soybean processing plant.

---. Study of the general administration, organization, and personnel of a milling company.

---. Reorganization of the management structure for a holding company.

In addition to those indicated above, E.I.'s clients include: Cargill, Inc.; the Ethiopian Ministry of Agriculture; FMC Corporation; General Foods, Inc.; Minneapolis Scientific Controls; Quaker Oats Company; FAO (Philippines); the U.S. Department of Agriculture; and the U.S. Department of Commerce.

INQUIRIES should be addressed to Executive Vice-President.

FLORIDA STATE UNIVERSITY
Center for Educational Technology (CET)
415 North Monroe Street
Tallahassee, Florida 32301

PURPOSE

To apply the theory and practices of educational technology to the solution of selected educational problems.

DESCRIPTION

CET, established in 1972, serves as a training, research, and service organization through which the University's resources in educational technology are integrated. The operational objectives are:

- To provide training programs in educational technology for U.S. and foreign professional staff development.
- To plan and carry out a program of applied developmental research.
- To design and organize systematic approaches and alternative models for the application of educational technology to the solution of educational problems.
- To serve as an information center on educational technology.
- To establish partnership linkages with appropriate educational agencies in order to develop action programs.

Training

Formal courses are offered by the University in various educational technology areas. Participants are both U.S. and foreign students. Training programs in educational technology offered by CET are designed to meet the specific needs of participants.

Research

Efforts are directed toward such activities as (1) the design of

cost-effective instructional delivery systems; (2) the use of radio and television as effective instructional media; (3) support of the Center's programs and projects; and (4) the development of new knowledge in educational technology.

Services

CET personnel engage in consulting activities (short and long term); organized project technical assistance; information exchange and dissemination; and seminars, symposia, and conferences.

STAFF

A full-time nucleus staff of professionals is maintained. University-wide expertise is also utilized as a resource for directing multidisciplinary efforts toward the solution of specific educational problems.

EXPERIENCE

AID-Financed Activities

Korea. Educational planning and management assistance.

Thailand. Training assistance in the preparation and production of programmed instruction materials.

Latin America. Assistance in connection with experimental and innovational projects.

Section 211 (d), Foreign Assistance Act, Grant. To strengthen CET's capacity for international development activities.

Other Activities

CET conducts training programs sponsored by U.S. government agencies and educational institutions, the Organization of American States, and foreign ministries, agencies, and institutions.

FOUNDATION FOR COOPERATIVE HOUSING

F.C.H. Services, Inc.
1001 Fifteenth Street, N.W.
Washington, D.C. 20005

PURPOSE

To assist in the development of housing for families of low and middle income, with homeownership through cooperative techniques as

a principal objective.

DESCRIPTION

The F.C.H. was established in 1952. The management services it provides include architectural and engineering supervision; assistance in finance; organizational and educational services; and processing mortgage applications and other government documentation leading to the construction of low cost housing. Overseas, F.C.H. serves as an advisor to AID and the host governments, principally through the housing ministries or agencies, housing banks, or other institutions. In addition, F.C.H. works closely with the prospective residents of the low cost and cooperative projects, providing assistance and direction for self-help by the residents. It assists contractors and builders when the housing is geared for middle income families.

STAFF

The staff for U.S. programs totals about 200, not including resident management and maintenance personnel.

The staff directly involved in international programs numbers 33; these professional personnel are stationed in Paraguay, Peru, Colombia, Costa Rica, Honduras, Nicaragua, Jamaica, the Ivory Coast, Zaire, and Bangladesh. The staff includes professional personnel who are fluent in English, French, and Spanish.

EXPERIENCE

The experience of F.C.H. includes work in consultation, training, research, and project management. A major part of the overseas program in earlier years consisted of country surveys in most countries of Latin America and several countries in Africa and Asia. In connection with the Housing Investment Guaranty Program, F.C.H. staff experts have been members of interdisciplinary teams selected by AID to make prefeasibility and feasibility studies prior to the undertaking of loans and project development.

GENERAL RESEARCH CORPORATION (GRC)
7655 Old Springhouse Road
McLean, Virginia 22101

PURPOSE

To provide research, analysis, development, program planning and management, and engineering, test, and training services to government

agencies and private organizations.

DESCRIPTION

GRC is a diversified, publicly owned professional service company dedicated to problem solving in military, civil, and social systems. It was founded in 1961 as the Defense Research Corporation to provide technical research and analysis for agencies of the Department of Defense, but having broadened its fields of research, diversity of clients, and geographical locations, it changed its name in 1967 to General Research Corporation.

The company's professional expertise and experience encompass most areas of national and international concern--societal, industrial, and military. Capabilities are present in systems engineering and development, operations research and analysis, systems analysis and advocacy, technology applications and technical assistance, and operational test and evaluation.

GRC does business in its corporate name or through its subsidiaries: American Technical Assistance Corporation (ATAC); Concord Research Corporation; Effects Technology, Inc.; Flow Laboratories, Inc.; International Research and Technology, Inc.; Lambda Corporation; Public Safety Systems Incorporated; and Raff Associates, Inc.

Most of GRC's international activities have been carried out by the American Technical Assistance Corporation. In July 1974 GRC established an International Center to facilitate the concentration of all appropriate corporate resources on international activities. Staffed primarily by ATAC International Operations personnel, this Center identifies situations in which its own staff can be complemented by resources from any GRC division or subsidiary.

These international activities involve the following program management capabilities:

Program Planning and Project Design. Advice to private organizations, international agencies, foreign governments, and U.S. government agencies on operating strategies and policies, performance of agricultural sector assessments, feasibility studies and baseline surveys, and design and documentation of sector programs and individual projects.

Project Management. Advice to AID missions and host-country agencies on program implementation, which includes resource allocation problems, budget presentation and execution, contracting procedures and selection criteria, staff training, and control mechanisms.

Program Evaluation. Evaluations overseas of sector programs, groups of projects, and individual projects. Work has included

the design of evaluation systems and training in their use. Evaluations related to the fields of agriculture, education, health and nutrition, cooperatives, population and family planning, and training.

Training. Most of GRC's extensive management training activities have been located in the U.S. These included the management of three off-site centers for training VISTA volunteers and Job Corps trainees, and individual training programs for more than 250 community action agencies.

Management Information Systems. Planning of management information systems, including both manual systems and sophisticated computer-assisted systems. A wide variety of surveys has also been conducted both in the U.S. and abroad, using standard opinion research techniques and questionnaires.

In addition to the countries mentioned in "Experience," below, GRC personnel have operated in the following: Algeria, Argentina, Austria, Belgium, the British West Indies, Canada, Chile, the Congo, Czechoslovakia, Denmark, the Dominican Republic, Egypt, England, Ethiopia, Finland, France, French Somaliland, Germany, Guyana, Haiti, Hong Kong, Hungary, Iran, Ireland, Israel, Italy, Japan, Laos, Libya, Malawi, Malaya, Mexico, Morocco, Nepal, the Netherlands, Norway, Panama, Peru, Saudi Arabia, Sierra Leone, Singapore, South Africa, South Vietnam, Swaziland, Sweden, Switzerland, Taiwan, Thailand, Turkey, Uruguay, Venezuela, and the Virgin Islands.

STAFF

General Research Corporation consists of some 1,300 full-time employees. Over 600 are professionals, the majority of whom have advanced degrees. Their combined talents cover virtually the entire spectrum of the social, physical, and biological sciences, engineering, law, and operations research. The staff is experienced in techniques of systems analysis and operations research.

The International Center has three full-time members and two virtually full-time consultants.

Corporate staff members speak the following languages: Afrikaans, Chinese, Dutch, Estonian, Farsi, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Malayan, Norwegian, Portuguese, Russian, Spanish, Swedish, Thai, Ukrainian, or Yugoslavian.

EXPERIENCE

Recent international experience includes the following activities:

Costa Rica, Honduras, El Salvador, Nicaragua, and Paraguay. Advisory services in planning agricultural and rural development programs.

India and Ecuador. Analysis of intersectorial nutrition systems, and development of a nutrition manual for program planners.

Honduras, Greece, Lebanon, and Nigeria. Evaluation of educational institutions at vocational and university levels.

Costa Rica. Provision of program implementation guidance for agricultural development program, including special evaluation studies and training in evaluation.

Costa Rica and Paraguay. Small farmer surveys.

Colombia, Guatemala, Costa Rica, and Brazil. Intercountry comparative evaluations of the effectiveness of different approaches in planning sector programs in agriculture and education.

Korea. Evaluation of a computerized simulation model of the agricultural sector.

Philippines and Yemen Arab Republic. Design of agricultural projects.

Philippines. Evaluation of agrarian reform activities.

Spain. Advisory services on planning-programing-budgeting systems.

GILBERT COMMONWEALTH INTERNATIONAL, INC.

P.O. Box 1498

Reading, Pennsylvania 19603

PURPOSE

To provide professional engineering, consulting, and construction management services internationally to electric and gas utilities, manufacturing industries, and national, state, and municipal governments.

DESCRIPTION

Gilbert Commonwealth International, Inc., was established in mid-1974 by its parent company, Gilbert Associates, Inc., of Reading, Pennsylvania, to serve as the international marketing and administrative arm of the parent company and its principal subsidiary, Commonwealth Associates, Inc., of Jackson, Michigan. Both Gilbert Associate and Commonwealth Associates maintain their individual identities and operate as separate profit centers. Gilbert Commonwealth International represents and coordinates both companies in the international market.

The experience and expertise of the Gilbert organization are largely concentrated in the area of public services--electric power generation,

transmission, and distribution; potable water supply and distribution; and sewage collection and processing systems. Civil works are also important--e.g., bridge design, urban design for municipalities, and environmental impact studies--as are industrial assignments, such as steel forging mill design, boiler plants, pollution control, solid waste disposal, and energy conversion activities.

Gilbert Associates' services include concept, planning, design, construction management, placement in service, and training of client personnel and/or management by Gilbert personnel. It has provided the following services based on the needs and desires of international clients: master plans; project feasibility studies; loan applications and negotiations; project design engineering; project quality assurance; project construction management; contract operation; corporate planning; and management improvement.

STAFF

Gilbert Commonwealth International, Inc., is able to select qualified personnel from associated operating companies for any particular job. Thereafter, close contact is maintained with the client to assure proper administration of the project. Technical supervision is in the hands of a project manager selected on the basis of the job's specific requirements.

The over-all staff totals 3,900, of which about half are professionals, 1,500 with engineering-technical specialties, and 450 with management and planning specialties. The latter include management consultants, economists, city and regional planners, industrial planners, computer system developers and operators, environmental consultants, and specialists in cost control and financial and management information systems.

EXPERIENCE

Although work in the U.S. accounts for 85 percent of the company's revenues, Gilbert's overseas experience is extensive. Some of its current or recent projects are listed below:

Honduras. Supervision of the construction of a water reservoir dam, a water treatment plant, and a pump station on the Guacerique River for Servicio Autonomo Nacional de Aceuductos y Alcantarillados.

Jamaica. Over-all review of the organization and management of the Jamaica Public Service Co., Ltd., for the government of Jamaica.

Taiwan. Study of the financial management and accounting systems of the Taiwan Power Company; implementation of recommendations and training of staff.

Nigeria. Studies for six water projects in Ibadan, for the government of Western Nigeria.

Guyana. Water feasibility study for two priority coastal areas, for the Ministry of Water Hydraulics and Supply.

Pakistan. Planning, design, and construction management on 120 miles of double circuit 220 Kv transmission lines.

Spain. Assistance to a Spanish engineering firm on siting survey for nuclear power plants, including environmental and demographic considerations.

Philippines. Management study and implementation of new systems and procedures, for the National Power Corporation.

Korea. Operation of electric power generating facility and training of personnel. Master plan and feasibility report for the development of nationwide electricity transmission and generation program.

Iran. Master electrification plan for six major distribution centers, for the government of Iran.

Nicaragua. Water and sewer system for ten cities.

INQUIRIES should be directed to Managing Director or Administrative Manager, Gilbert Commonwealth International, Inc.

GOVERNMENTAL AFFAIRS INSTITUTE (GAI)
1776 Massachusetts Avenue, N.W.
Washington, D.C. 20036

PURPOSE

GAI, which has its origin in organizations with an academic orientation, is dedicated to the more effective performance of governmental functions and services throughout the world.

DESCRIPTION

GAI is a nonprofit corporation founded in 1950. It is associated with the Public Administration Service (PAS), both organizations having a common Board of Directors and corporate officers. Staff members are also shared by the organizations, depending upon program needs.

STAFF

The firm's full-time salaried staff includes approximately 17 professional members. The PAS program complements and strengthens GAI activities by virtue of its overseas experience in 50 developing countries, including project management (small-holder rubber and tea), systems preparation and installation, agriculture development banking, and associated undertakings. Language capabilities include Spanish, Portuguese, Hindi, Punjabi, and Urdu.

EXPERIENCE

In recent years GAI has carried out the following activities related to management capabilities and project management:

- Population Activities Center for conducting training courses and seminars in administration and management, with special emphasis on the planning and management of family planning programs.
- Assessment of needs for regional training as related to development administration.
- Program of study, observation, and professional contact for visitors to the U.S. from other parts of the world, including visits and activities helpful to the development process.
- Review of the implementation of agricultural plans in developing countries, the preparation of innovative systems of planning and training, and the installation of such systems.

HARVARD UNIVERSITY
Graduate School of Business Administration
Soldiers Field
Boston, Massachusetts 02163

PURPOSE

To improve the management capability of private and public agribusiness participants, thereby improving the food systems of major developing nations and regions of the world.

DESCRIPTION

The technique employed by the School is the application of the commodity system approach to the definition and analysis of problems in food systems.

Areas of study include: project feasibility analysis, marketing, finance, agricultural economics, national food policies, logistics, nutrition intervention, and the employment of coordinating mechanisms such as futures markets, vertical and contractual integration, corporate and/or cooperative joint ventures, and marketing agreements.

STAFF

The staff is drawn from faculty members with relevant specialties.

EXPERIENCE

Central America. Management of a project completed in 1973 for identifying market opportunities of Central American fruit and vegetable producers, and for identifying consequent requirements for agribusiness management education.

Southeast Asia. Currently engaged in a project similar to the preceding, with emphasis on corn and on needed governmental policy priorities.

PUBLICATIONS

"Agribusiness Management for Developing Countries, with Special Reference to the Central American Fruit, Vegetable, and Floriculture Export Industries." August 1973.

HARVARD UNIVERSITY

Harvard Institute for International Development (HIID)
1737 Cambridge Street
Cambridge, Massachusetts 02138

PURPOSE

To function as the University's center for programs of service, research, and training related to developing countries.

DESCRIPTION

HIID, established in 1974, succeeds the former Development Advisory Service (established in 1962) and incorporates its experience into a multidisciplinary structure concerned with a broad range of development issues, including those of the economy, health, education, and urban planning. HIID presently carries out its activities in conjunction with Harvard's School of Public Health, Graduate School of

Education, and Graduate School of Design. Other University faculties are expected to be associated in the future.

HIID is primarily interested in programs abroad which will help indigenous institutions to develop self-sufficient capabilities. It serves in teaching, research, and advisory capacities through assistance to local teaching or research institutions or to government instrumentalities.

STAFF

There are several types of appointments to the HIID staff: (1) Institute Fellows, who divide their time between residence at Harvard and assignments abroad; (2) Faculty Fellows, who have primary appointments in a teaching faculty of the University, but who also engage in research or other activities of HIID; (3) Visiting Fellows, who are outstanding scholars or officials from developing countries who are associated with HIID for varying periods; and (4) Graduate Student Associates, who receive support for research on doctoral dissertations at Harvard and abroad.

EXPERIENCE

Overseas Assistance Programs. Presently operating in Ethiopia, Indonesia, Central America, Korea, Malaysia, Tanzania, and Iran. Assistance or collaboration normally involves (1) assignment of HIID personnel to a host institution for varying periods of time; (2) formal training programs; (3) active collaboration on research and teaching; (4) placement and support of professionals in training programs abroad; and (5) involvement of HIID personnel in the analysis of indigenous problems.

Research. Carries out research programs of an applied and comparative nature, focusing on selected priority fields in development. To the maximum extent feasible, research is related to overseas activity and is undertaken collaboratively with nationals from developing countries.

Training. Administers the Edward S. Mason Program in Economic Development of the John Fitzgerald Kennedy School of Government, which is a one-year, M.A. level curriculum for middle level officials from developing countries. HIID also provides placement services and logistical support for students from overseas projects selected for advanced training abroad. Students at Harvard from or interested in developing countries use HIID as a source of information for the University's programs and activities in the field of development.

PUBLICATIONS

The Publications and Documentation Center is maintained as a repository for unique research materials on developing countries, particularly on those in which HIID has been involved. A prepublication mimeograph series, "Development Discussion Papers," is also prepared. A bibliography of publications by HIID staff members is available from this Center.

INQUIRIES should be directed, as their subject may indicate, to:
(1) Director, HIID; (2) Associate Director for Finance and Management;
(3) Associate Director for Research; (4) Associate Director for Overseas Projects; or (5) Director, Office of Student Programs.

HOWARD UNIVERSITY
2400 Sixth Street, N.W.
Washington, D.C. 20059

PURPOSE

To educate youth in the liberal arts, sciences, and professional fields (notably dentistry and medicine) and to educate "disadvantaged" Blacks. In addition, Howard has accepted the responsibility for the continuous and comprehensive study of disadvantaged persons in the American society, as well as the responsibility for contributing to the prevention, amelioration, and removal of disabilities created by racial, social, economic, or political circumstances.

DESCRIPTION

Howard University was founded in 1867. The Colleges of Dentistry and Medicine, the Schools of Architecture and Planning, Social Work, and the Graduate School have provided management services to many countries for a number of years.

Howard's faculty is in a unique position to serve developing countries since nearly 22 percent of its student population is international and its faculty includes many members from foreign countries.

Howard's services are at the disposal of countries that require and request them. In the past, a number of non-English speaking countries have received assistance.

STAFF

Projects are generally staffed by faculty members. The size of groups varies with the size and complexity of projects and may include faculty with a single specialty or an interdisciplinary team.

Howard's faculty and staff members possess varying degrees of experience in consulting, training project personnel, conducting research, and general project management relating to developing countries.

EXPERIENCE

In the 1972-73 academic year, the College of Dentistry planned the establishment of a dental facility to train dental practitioners in Jamaica. During the last year, the College formulated, implemented, and evaluated a number of research projects in that island. These projects included the training of dental personnel, consultations, and research.

Over the last few years, personnel in the College of Medicine have consulted extensively in a number of developing countries. A notable example of this is Dr. Ulrich Henschke's input in radio-therapy research projects in developing countries.

The School of Architecture and Planning's Kumasi Project in Ghana involved town planning, design, development, and consultations.

During the academic year 1974-75, the School of Social Work organized practicum classes for their graduates in a developing country. Faculty and students conducted training sessions, provided consultations, and in general, managed their projects to successful conclusions.

PUBLICATIONS

Publications and/or reports arising from projects are prepared as a requirement of most assignments.

INQUIRIES about various projects in operation or requests for full-time staff assistance may be directed to individual schools or colleges or to the Office of Operations Analysis and Institutional Research.

IIT RESEARCH INSTITUTE (IITRI)
10 West Thirty-fifth Street
Chicago, Illinois 60616

PURPOSE

To conduct engineering, technological, economic, and management projects for government and industry.

DESCRIPTION

IIT Research Institute is an independent, nonprofit, contract research organization which has been providing research and development services to government and industry since 1936. Over 700 projects are undertaken annually in the U.S. and abroad. Project work is predominantly for local and federal governments and industry in the U.S. Recent operations overseas have involved advanced manufacturing methods and technology transfer. Other areas of international service are: research and development management; training in applied research organization and application; research on indigenous raw materials in developing countries; consulting on new industry potential in developing countries; as well as organization and management of new industrial research institutes.

STAFF

IITRI's current staff exceeds 1,380, including over 850 professional engineering, scientific, and management personnel representing skills in virtually all of the scientific disciplines. Approximately one-half of the staff holds advanced degrees.

EXPERIENCE

IITRI has been involved with projects in developing countries for over 30 years. It has participated in major programs in Argentina, Mexico, Burma, Colombia, the Philippines, Libya, Kuwait, and Venezuela.

Within the past few years, IITRI has collaborated with the Korean Institute of Science and Technology in a program aimed at training KIST technical staff and at the transfer of certain technologies developed through NASA to industrial use in Korea.

IITRI conducted a management training program for Brazilian research managers, and it participated with the National Academy of Sciences in a workshop on industrial research held in Indonesia.

Other major project experience has included the management of the following projects:

Libya. Through provision of counterparts to divisional managers in the Ministry of Industry, trained the managers in the functions of their offices and helped them develop viable programs.

Mexico, Burma, Colombia, and Venezuela. Managed the organization and direction of applied research institutes.

Argentina, Philippines, and Chile. Provided management training and planning to research institutes.

Other. Provided a variety of research, management, production planning, and feasibility studies to countries throughout the world.

INQUIRIES should be directed to Assistant to the Director, IITRI.

UNIVERSITY OF ILLINOIS
Office of International Programs and Studies
Office of Overseas Projects
Room 359
409 East Chalmers
Champaign, Illinois 61820

PURPOSE

To provide support on a campus-wide basis for colleges and units having programs of technical assistance at overseas locations.

DESCRIPTION

The Office of Overseas Projects was established in 1969. In providing administrative and logistic backing for technical assistance programs, the Office coordinates project surveys, preparation of proposals, project negotiations, and project administration.

STAFF

The core staff of the Office of Overseas Projects is limited to a full-time director and a part-time assistant director. They work through appropriate college, departmental, and unit staff, and the administration-sponsored programs. Matters of a technical and professional nature are the responsibility of the appropriate operating unit. For example, the Department of Agricultural Economics would be responsible for a program sponsored by the Ford Foundation to develop a similar department in an Indian university; the College of Commerce would be responsible for the development of a Graduate School of Business at a North African university; and the Department of Secondary Education would be responsible for the development of a Science Education Center in a West African college. Administration details of the projects, such as proposal preparation, budgeting, clearance of personnel who serve overseas, and arrangements for acceptance of incoming trainees, have been handled by the Overseas Projects Office.

EXPERIENCE

Major institutional development contracts with AID were coordinated

by the Overseas Projects Office in the 1960s and early 1970s. Long-term cooperative arrangements with the following institutions have either been completed or are in the phase-out stage: the G. B. Pant University of Agriculture and Technology and the J. Nehru Agricultural University, India; Njala University College, Sierra Leone; and the Graduate School of Business, Tunisia. A program in international soybean production, protection, and utilization has as an outreach component several individual task orders to help AID missions and developing countries with a broad range of soybean development. Task orders have been written for assistance in Guyana, Peru, and Bangladesh during 1973-74, and survey teams have been formed in response to mission requests, notably in Nepal and Bangladesh.

INSTITUTE OF INTERNATIONAL EDUCATION (IIE)
809 United Nations Plaza
New York, New York 10017

PURPOSE

To work toward the broad goals of society by facilitating efforts of individuals and institutions in the transfer of skills, information, and personnel; by distributing information both here and abroad about opportunities and procedures involved in such transfer; and by evaluating ways to improve the complex systems required.

DESCRIPTION

IIE was incorporated in 1919 as a nonprofit organization. It has provided a wide range of administrative services within the framework of international education. Working with several hundred domestic and foreign organizations, IIE has carried out programs on behalf of sponsors through a network of 13 offices in the following cities in the U.S. and around the world: Atlanta, Chicago, Denver, Houston, Los Angeles, San Francisco, Washington, D.C., Bangkok, Hong Kong, Lima, Mexico City, Nairobi, and Santiago.

IIE has served numerous academic institutions, corporations, foundations, and the U.S. and foreign governments and their agencies by sponsoring technical assistance programs in a variety of fields, including agricultural research, economic planning, management training, population control, and science education.

Contracting or sponsoring organizations either assign to IIE total responsibility for management of a given program or they specify such separate elements as the following: recruitment of specialists for overseas assignments; employment administration, which can involve contracts, salaries and benefits, visas, and transportation both of personnel and effects; budgeting and fiscal management of project funds;

procurement and shipment of materials and equipment; placement and supervision of students in the U.S. and third country institutions or agencies for practical training and/or formal academic study; development of travel-study programs for U.S. and foreign specialists, scholars, and professors; and project analysis and evaluation.

STAFF

In performing its tasks, IIE utilizes consultants and specialists drawn from universities and other agencies as well as its own permanent staff of 253, of whom 67 are managerial, 67 professional, and 119 secretarial/clerical support.

EXPERIENCE

In FY 1973 IIE managed 443 programs on behalf of 62 sponsors. Of these, 145 were technical assistance projects and 125 were manpower development programs which strengthened institutions of higher education and involved the cooperation of American colleges and universities in the application of knowledge, skills, and training to meet the needs of less developed nations.

During the same year IIE administered 136 sponsored exchange programs which served individual needs for education and training. Both U.S. and foreign student programs centered around the Mutual Educational Exchange Program (Fulbright-Hays) of the Department of State with which IIE has been associated since the first grants were awarded in 1947. The remaining 37 sponsored programs involved support for international educational interchange through publications, information and counseling, conferences, and seminars.

Over-all, some 7,500 grantees and project employees from more than 100 countries participated in activities that IIE administered for sponsors in FY 1973.

Recent projects include:

Mekong Scholarship Program. Under contract with the Committee for the Coordination of the Mekong Basin (a unit of ECAFE), IIE is developing a staff training program to prepare professionals from four riparian countries (Kmer Republic, Laos, Thailand, and the Republic of Vietnam) to form the nucleus of a permanent secretariat.

International Institutes of Agriculture. IIE is responsible for employing the professional staff (numbering approximately 180 agricultural scientists) of centers in the Philippines, Mexico, Colombia, Nigeria, Peru, Taiwan, and India. These centers, at the heart of the "green revolution," are members of the Consultative Group on International Agricultural Research chaired by the World Bank.

Program of Educational and Technical Exchange for Central America (PETECA) and for South America (PETESA). IIE formulated and is carrying out a plan to train middle level technicians from Central and South America at two-year colleges in the southeastern region of the U.S.

East Pakistan/ Bangladesh Science Project. From 1967 through 1971 IIE, under contract with AID, planned and executed an annual series of institutes for college and university faculties. It also created a permanent institution to stimulate improvement in science and technology education.

PUBLICATIONS

IIE currently has over 25 publications in print, including reports of studies and conferences and guides to educational resources both here and abroad. A complete listing is available. Items of special interest published within the last few years include:

Communications Technology and the Crisis in Education.

Education for Journalism in Latin America.

Handbook on International Study for U.S. Nationals. 5th ed.

Handbook on U.S. Study for Foreign Nationals. 5th ed.

Higher Education in Asia and the United States.

INQUIRIES should be directed to President, IIE.

INSTITUTE OF PUBLIC ADMINISTRATION (IPA)
55 West Forty-fourth Street
New York, New York 10036

PURPOSE

To further the application of scientific management in government.

DESCRIPTION

IPA is an independent nonprofit organization, established in 1906. It maintains a library of over 80,000 volumes, and is accredited to grant degrees of Master and Doctor of Public Administration.

Since 1950, IPA's domestic projects have concentrated on the fields of urban administration, organization, planning and finance, transporta-

tion, pollution control, manpower, and public health. Overseas technical assistance projects have focused on administrative development and reform, urban and regional planning, population and human resources, and community and rural development.

Professionals working overseas for IPA in the field of project management specialize in tasks requiring multidisciplinary approaches, such as urban systems, rural development, regional planning, and transportation planning. IPA professionals have experience in institutionalizing management skills both by working with counterparts in on-the-job training and by designing and teaching training courses adapted to the local administrative environment.

IPA experts in management sciences have designed courses in budgeting, accounting, financial control and auditing, agricultural program management, local government operations (including taxation, financial management, program budgeting, and analysis), and executive development. They have worked in counterpart relationships with educators and trainers in the administrative sciences, with planners (urban, rural, transportation), and with government officials in ministries covering every sector.

STAFF

The staff consists of approximately 60 full-time professionals. This regular staff is augmented by a number of active associates drawn from a network of several hundred top professionals in the academic and business communities. All IPA professional staff members have received graduate level training in their fields of specializations. Among the disciplines represented are economics, engineering, law, mathematics, planning, operations analysis, organization and management, political science, public administration, sociology, statistics, manpower systems design, transportation analysis, and financial management.

Whenever a project requires foreign language expertise, IPA ensures that staff members possess the necessary capability. IPA's staff roster is especially strong in the use of Spanish, and somewhat less so in French.

EXPERIENCE

In the field of project management, three principles are stressed by IPA: (1) Project management requires coordination and interaction of key personnel at many levels of authority, not at the field level alone. (2) Most projects require interfacing of personnel and inputs from an entire administrative system; focus of project management should extend beyond the narrow limits of a single organization or agency. (3) Projects are vehicles for implementing governmental policy; thus, coordination between policy and project goals is essential.

A few selected IPA projects are described below to illustrate this

approach.

Venezuela. IPA helped establish a local institution capable of becoming the national focus of project management activities for urban and community development. (The project began in 1963, before "project management" was recognized by development agencies as a distinct field for technical assistance.) IPA's technical assistance to the Venezuelan Foundation for Community Development (FUNDACOMUN) included the design of management systems for Venezuelan municipalities and the design of manuals for the dissemination of the new management techniques. The project established guides for communities to coordinate their decisions with actual development needs, to plan local development projects, and to manage public works more effectively. In Venezuela, as in all IPA Latin American projects (total to date, eight), IPA's teams worked in the Spanish language.

Uganda. IPA began providing technical assistance to the Uganda Institute of Public Administration in 1970. The project was aimed at improving the capabilities of Ugandan public officials to plan and manage development projects. For example, an IPA staff member at UIPA led an exercise in which planning was followed by actual implementation as an integrated whole, using a zonal agricultural development scheme as the subject matter. This exercise involved representatives from the Ministry of Agriculture and several other ministries. It included training sessions and planning activities, which used scheduling charts and similar aids. These were followed by several months of field experience in the actual implementation of the zonal plan that had been devised. A manual for agricultural program management has been published by AID on the model established by this project.

Liberia. In 1973, IPA began providing technical assistance to the newly established Liberia Institute of Public Administration (LIPA). LIPA will offer in-house training through a variety of courses, seminars, and conferences, and it will begin developing a consultancy capability to provide resources to agencies requiring expert assistance in specified problem areas. IPA advisors are assisting LIPA's faculty and administrators to improve skills necessary to manage LIPA and to survey manpower needs and develop training programs. Specific attention is being given to rural development and project management capabilities of local administrators. IPA personnel have also begun providing consultancy services to Liberian government agencies on behalf of LIPA.

PUBLICATIONS

The following is a representative list of IPA's publications:

Boyce, Charles. Elementos de Planificacion Urbana. Caracas: Fondo Editorial Comun, 1969.

Cabezas M., Ramiro. Elementos de Administracion y Politica Tributaria para Gobiernos Municipales. Caracas: Fondo Editorial Comun, 1969.

Institute of Public Administration. Direccion de Programas Aplicados. Lima: ONRAP, 1965.

---. Enterprise in Mid-Passage. 1971. A management analysis of the Marine Enterprise of the Jacksonville Port Authority.

---. Informe de Organizacion y Manuales de Organizacion y Funciones de la Corporacion de Fomento y Promocion Social y Economica de Puno. Lima: ONRAP, 1965.

---. The Role of Host Institutions in Increasing the Benefits from Technical Assistance Programs. Prepared for the Inter-American Development Bank, 1966.

Jimenez, Juan I. Public Investment Projects within the Public Administration: Criteria and Experiences from a Training Program. Lima: ONRAP, 1965.

Kulp, Earl M. Basic Agriculture Program Management. AID, 1973. Available in English and French; a Spanish version is in preparation. Teacher's Manual is also available.

INTECH, INC.
2915 Wayzata Boulevard
Minneapolis, Minnesota 55403

PURPOSE

To offer a variety of services using information technology.

DESCRIPTION

Established in 1967, Intech offers the following project management services:

- Information systems design and implementation.
- Urban and regional planning.
- Design and management of economic and sector analyses and sector assessments in agriculture, health and nutrition, and education.
- Training courses in sector analysis methods.

STAFF

Intech employs approximately 45 professionals with the specialties listed above in its four U.S. offices and its Melbourne, Australia, affiliate.

EXPERIENCE

Systems Design and Implementation

St. Cloud Hospital System. Designing, developing, and implementing a complete computerized information and order-processing system. The system will allow health care professionals to retrieve information, act on instructions communicated by the system from other parts of the hospital complex, and update records, through use of remote terminals located in nursing stations, the pharmacy, laboratory facilities, and administrative posts.

TIES (Total Information Educational System). The TIES project covers 29 school districts representing about 230,000 students. Intech designed and implemented the data control system which handles maintenance and message switching in the TIES network.

Urban and Regional Planning

ARCH (Alliance for Regional Community Health). Designed information system for ARCH to provide information on health status, needs and demands, health resources, resource utilization, and effectiveness of health service delivery system, for St. Louis, Missouri, metropolitan area.

Twin Cities Area Metropolitan Council. Developing integrated data base for regional planning. The data encompass population, housing, criminal justice, and health, transportation, and finances.

Economic Analysis and Sector Analysis

AID. Developing methods for integrating nutritional concerns into agriculture and health sector analysis for use in developing countries, under AID contract, and will supervise implementation in two test countries.

---. Developed and instituted training programs in the use of sector analysis methods and the role of computers in sector analysis.

Latin America. Consultative services in health and nutrition sector assessment in several countries. (Spanish-speaking capability.)

INQUIRIES regarding information systems and urban and regional planning should be directed to Intech's Minneapolis office; inquiries

regarding sector analysis, to Intech at 814 Thayer Avenue, Silver Spring, Maryland 20910.

JOHNS HOPKINS UNIVERSITY

School of Hygiene and Public Health
Department of International Health
615 North Wolfe Street
Baltimore, Maryland 21205

PURPOSE

To conduct training and research programs in public health.

DESCRIPTION

The Department of International Health was created in 1961 by the University to meet AID needs. Additional support was obtained from the U.S. Public Health Service. Full departmental status was accorded in 1967. Numerous grants have been received from WHO, foundations, etc.

Training

A wide variety of programs is offered to students from the U.S. and abroad.

- The Masters of Public Health Program is oriented either toward American or foreign students who are preparing for public health work with international agencies or toward foreign students from less developed countries who are seeking educational opportunities that will enable them to implement more effective health programs in their own countries. At least nine months of work in residence is required for the degree of Master of Public Health.
- Doctor of Public Health study is available for students who meet the School's requirements. Doctoral research projects may be arranged in countries where the department is working, thus permitting faculty supervision of field work.
- Residency training in international health, approved by the American Board of Preventive Medicine, offers opportunities for gradually increasing responsibility under supervision both in administrative and research endeavors, with particular opportunity to work with field research teams.
- Senior international health workers may undertake special work. Individualized programs can be developed both for international agency employees who have been working overseas and for health officials from developing countries who want a period of academic

study before moving on to positions of greater responsibility.

Curriculum

The courses presently being offered include:

Introduction to International Health
Seminar for Program Planning and Project Development
Quantitative Decision Procedures
Planned Change
Comprehensive Health Planning
Family Planning Administration
Teaching of Community Medicine in Medical Schools
Economics of Health
Elements of Economics
Basic Techniques of Health Planning
Educational Strategies in Population and Family Planning
Studies in Location Analysis in Health Care Delivery
Policy Issues and Methodological Approaches in National, Regional,
and Urban Health Planning
Area and Language Study
Special Studies and Research in International Health
Departmental Luncheon Seminars in the fields of nutrition, family
planning, etc.

Special Program for Senior Health Planners

An annual two-month intensive course was set up with an initial three-year grant from the Alliance for Progress and AID. The 10 to 20 individuals currently enrolled come from most areas of the world except Latin America (a similar course is given in Santiago, Chile). Participants are financed principally through international agencies such as AID and WHO.

Research

Research projects have been conducted in the following fields: health planning (national health manpower studies); feasibility studies of functional analysis of rural health centers; comparative patterns of education (studies of orientation of physicians); geographical epidemiology (comprehensive health surveys--worldwide); nutrition and infection at weaning; population dynamics (study of abortions and family planning, including computer simulation study and study of effectiveness of various contraceptive methods); and effective integration of family planning programs with maternal and child health services and education.

STAFF

The department has a full-time staff of 15 in Baltimore and draws upon faculty and course offerings of other departments of the School. Six U.S. staff members are overseas.

EXPERIENCE

With AID financing, including a grant to the University under Section 211 (d) of the Foreign Assistance Act of 1961, the department's activities have moved progressively to fundamental research and associated teaching and service contributions related to the integration of family planning, health, and nutrition in basic delivery systems for the rural poor. Increased competence has been developed in the areas of health and population planning, especially in relation to manpower. Strong linkages through field work and consultation have also been developed in over a dozen countries representative of Africa, Latin America, the Far East, and the Middle East to evaluate existing programs and assist in establishing new programs.

PUBLICATIONS

The department has published a series of monographs as well as a widely used text on health planning and manuals for rural health workers in child care. A manual on nutrition care in rural areas is forthcoming. Additional books are in press on rural internship studies and functional analysis of health manpower in India, and the beliefs and attitudes of rural people about health and medical care.

Members of the department have published extensively in national and international journals, periodicals, conference proceedings, etc., personally and as research groups in many fields of experience in teaching and research.

A. T. KEARNEY, INC.
100 South Wacker Drive
Chicago, Illinois 60606

Washington Office
1725 K Street, N.W.
Washington, D.C. 20006

PURPOSE

To provide a wide range of professional management consulting services in a variety of functional areas.

DESCRIPTION

Kearney is an international management consulting firm, founded in 1926, with 12 offices located throughout the U.S., Europe, and Japan. The scope of services provided by the firm includes:

- Executive management, including organization planning, feasibility studies, and systems.
- Production and operations, including research and engineering management and production planning and control.
- Organization and personnel, including organization and staffing studies, manpower inventories and planning, management development programs, and job and supervisory training.
- Marketing and sales, including economic studies, manpower development programs, and distribution planning.
- Management systems and finance, including data processing systems, budgetary control, inventory management, and computer applications.
- Transportation and physical distribution, including studies and planning systems.
- Operations research/systems analysis, including network analysis.
- Health and other institutional services, including program, area, and facilities planning, organization and management review, systems engineering, staffing studies, and program development and evaluation.
- Government agency services, including information studies, organization and operations, and program evaluation.

STAFF

The staff consists of over 75 officers and principals, who with the balance of the professional staff, total more than 300 full-time management consultants. Professional personnel have a great variety of substantial academic, professional, and business backgrounds and a wide range of foreign language capabilities.

Kearney's overseas offices are staffed largely by nationals of the countries in which the offices are located. In addition to conducting consulting activities for agencies in those countries, these personnel are available for assignment on a worldwide basis.

EXPERIENCE

Kearney has served government and industry on management consulting assignments in over 50 countries. In addition, it has numerous clients in the U.S., including corporations and federal, state, and local agencies.

During the past five years, the firm has undertaken more than 5,000

assignments, of which 600 have been for hospitals and health care centers all over the world, and 300 for U.S. and foreign government infrastructure. Over 80 percent of Kearney's clients are in the commercial sector. More than 500, or 10 percent of the total assignments, were overseas. Some representative project assignments in education, agriculture, industry, health, and government infrastructure are described below.

University of Chicago. Management assistance in financial operations, accounting, productivity training, study and improvement of maintenance programs, evaluation of supervisors, and assistance in control systems.

College of Guam. Analysis of operating costs and a plan for more effective management.

U.S. Department of Agriculture. Study of new technology for storage and transport of grain from farm to market.

Chile. Management study of national fertilizer production, importation, and distribution, for the government.

India. Developed technical and economic feasibility of building heavy equipment construction plant, for the government. Kearney was later retained to develop plant layouts, construction cost estimates, and manpower requirements for the plant, which is now in operation.

Germany. Complete long-range management plan for the Heidelberg Rehabilitation Center.

United Kingdom. Organization and staffing plan for the British Health Service.

Korea. Economic studies and forecasts and training, for the government.

Turkey and Venezuela. Consulting services on general management, organization, transportation, data processing, and information systems in the petroleum industry, for the government.

ARTHUR D. LITTLE, INC. (ADL)
Acorn Park
Cambridge, Massachusetts 02140

PURPOSE

To provide a wide range of project management capabilities to assist federal and local governments, international agencies, and

commercial enterprises in the conceptualization, execution, monitoring, and implementation of projects.

DESCRIPTION

ADL is a management services firm established in 1886. Its headquarters are in Cambridge, Massachusetts, and it has offices in San Francisco, Washington, D.C., and Toronto, and subsidiaries in Athens, Brussels, Caracas, London, Paris, Rio de Janeiro, and Weisbaden. Project offices or affiliated operations are maintained in Mexico City and Algiers.

From an original base of domestic scientific research, product technology, and engineering, ADL has broadened its range of services to include a spectrum of management consulting and economic development capabilities. In addition, international activities have continued to grow in importance and today account from some 27 percent of ADL's annual business.

STAFF

On a worldwide basis, ADL has 1,506 employees. Seven hundred and sixty-five members of this total staff are graduate professionals. Approximately one-half of them are engaged in broad ranging management consulting activities. Of the 765 professionals, 238 hold M.A. degrees, and 131, Ph.D.s. In addition, ADL has an active roster of 300 consultants who participate in client assignments in accordance with their areas of specialization. Due to the wide range of ADL activities, staff specialization is equally diversified. Areas of concentration include: organization, management, and strategic planning; marketing and distribution; financial analysis and controls; operations research; new product evaluation and introduction; economic analysis and project feasibility; public administration; urban planning; agribusiness; and health and education. In addition, ADL has professional experience in most areas of engineering and the physical sciences.

More than 200 members of ADL's professional staff have experience in overseas project management. The bulk of this work has been undertaken in the emerging world: Latin America, Africa, the Middle East, Southeast Asia, and the Pacific Basin.

EXPERIENCE

ADL has undertaken many international projects in the past few years that have demanded the management capabilities of the professional staff. Many of these assignments involved project conceptualization, feasibility and bid evaluation analysis (frequently including research competence), policy formulation, staff training, and detailed implementation.

A representative list of such recent projects includes:

Algeria. SONATRACH: Many projects in the past decade dealing with numerous aspects of the petroleum industry. Resident staff members participated in the work from project design to implementation.

---. Agribusiness: Several projects dealing with the dairy industry, wine, fisheries, and citrus fruits. The projects involved food technology, marketing, distribution, promotion, packaging, export incentives, etc.

---. Education: Evaluation of manpower resources, staff training, staff counterpart evaluation, and implementation of teaching systems.

Iran. Management training, UNDP: Design, structure, and teaching of a series of management-oriented business courses.

---. NIRT: Planning, organization, and implementation of policies, procedures, and programs for national TV and radio operation.

---. Tobacco Monopoly: Marketing, organization, and staff training.

---. Ports: Administration and organization of entire national ports systems. Rate setting, systems design, monitoring, and implementation.

Abu Dhabi. Short- and medium-term industrialization planning.

Guyana. Organization and market requirements for government aluminum operation.

Puerto Rico. Organization and policy formulation for the Water Resources Authority.

Mexico. Urban planning, social implications, and economic consequences of the impact of tourism on the Acapulco region.

Brazil. Organization study, detailed design, and implementation of new structure and management information control. Key staff members in long-term residence.

---. Heart Institute: Functional planning, organization, and design of operational manuals.

---. Hospitalia: "Turnkey" projects to plan, design, equip, construct, and put into operation three large teaching hospitals in Sao Paulo. Staff members in long-term residence.

---. Northeast Agriculture: Agribusiness system development and crop selection.

Bolivia. Three-year program to evaluate industrial opportunities. Assistance in negotiating Andean pact strategy. Staff members in long-term residence.

Costa Rica and Dominican Republic. Organization planning and institutional development of export development policies, including evaluation and selection of products.

Kuwait. KNPC: Organization planning and implementation to support major growth and diversification of the National Petroleum Corporation.

Venezuela. Corpbecidente: Organization and policy formulation and implementation.

Saudi Arabia. Petromin: Assistance to the Ministry of Petroleum and Minerals in developing a five-year plan for industrialization. Design of systems and procedures for planning.

---. Telecommunications: Analysis of telecommunications system. Design of system and procedures for domestic improvement and international capability.

Taiwan. Design and implementation of an industrialization program.

Philippines. ADB. Comprehensive transportation study of Southeast Asia. Staff members in long-term residence.

Tanzania, Ethiopia, Senegal, Colombia, and Korea. Design of a master plan for tourism development; organization requirements; promotional evaluation; economic analysis and impact; and tax investment incentives.

PUBLICATIONS

Reports are prepared on completion of client assignments.

INQUIRIES regarding ADL's international project management consulting should be directed to International Development & Marketing Group, ADL.

ARTHUR D. LITTLE MANAGEMENT EDUCATION INSTITUTE, INC. (ADLMEI)
Acorn Park
Cambridge, Massachusetts 02140

PURPOSE

To provide managers, by means of the Agro-Industrial & Industrial

Development Management Education Program, with the capability to (1) formulate effective policies and operating strategies and (2) translate management and economic project analysis decisions into practical and effective actions both within government and private sectors of developing economies.

DESCRIPTION

ADLMEI is a subsidiary of Arthur D. Little, Inc. (ADL). The Institute is legally authorized to award the degree of Master of Science in Administration to those who successfully complete the Agro-Industrial & Industrial Development Management Education Program.

The program emphasizes relevance, application, and practicality, building upon economic and administrative theory covered in the early phase of the program.

The program is in a position to combine theory and relevance. First, it maintains a resident faculty, that is, ADL professional staff members with broad experience in multinational consulting and management training. Second, it draws additional faculty from internationally recognized universities in the Boston area. Third, the experience accumulated by the staff of ADL in over 80 years of consulting gives the management program a basis of real world relevance.

The program is a ten-month, full-time course including over 650 classroom hours, supervised field trips, research projects, and plant trips. The curriculum is broken down into three related course clusters which represent major educational thrusts. In the first cluster, the tools, techniques, and theory of economics and administration are covered. In the second cluster, this theory is applied in studying the functional areas of administration, such as accounting and marketing. The third cluster focuses on the integration and application of these topic areas.

Cluster 1. Orientation Course; Quantitative Methods; Macro-Economics; Micro-Economics; Regional Economics; Economic Analysis of Projects; Development Economics.

Cluster 2. Accounting and Control; Marketing Management; Financial Management; Organizational Behavior and Change; Production Management; Agricultural Production and Development.

Cluster 3. Strategy Formulation and Implementation; International Trade and Investment; Project Management; Simulation Case Studies; Industrial and Public Policy; Small Business Development; Agribusiness Systems and Coordination; Manpower Planning; Integrated Case Series.

EXPERIENCE

The Agro-Industrial & Industrial Development Program is now in its

tenth year of training managers from developing countries. To date there are 161 alumni representing 13 countries.

Upon request, the Institute's administration has also designed, developed, and conducted management courses which are specifically tailored to suit the needs of individual organizations or countries:

- Industrial Management Education Program for Iran.
- Specialized Course in the Administration of Agro-Industries, Brazil.
- International Petroleum/Petrochemical Management Education Program.

PUBLICATIONS

The staff and faculty of ADLMEI have developed a number of teaching materials and simulation case studies for use in the classroom.

A brochure giving full details of the program, admissions requirements, and cost information is available upon contacting either the President or the Director of Education, ADLMEI.

LOCKHEED AIRCRAFT INTERNATIONAL, INC. (LAI)
510 West Sixth Street
Los Angeles, California 90014

PURPOSE

To provide consulting services in the fields of aviation, construction, industrial development, and management.

DESCRIPTION

LAI was established in 1959 as a wholly owned subsidiary of the Lockheed Aircraft Corporation. Through offices located in various parts of the world, it represents the international activities of the parent company in these categories: feasibility studies; economic analyses; technical evaluation; program and project management; systems analyses; financial management; engineering design; construction supervision; and equipment procurement.

STAFF

LAI employs more than 63,000 people, of whom nearly 16,000 are

engaged in scientific and engineering work.

EXPERIENCE

LAI has recently developed capabilities in the following areas: (1) health care systems and (2) earth resources assessment and development through program management of remote sensor data acquired by means of earth satellite or aircraft.

LAI uses a number of management and computer-aided techniques in connection with government and private activities. Lockheed teams train indigenous personnel in their activities in many parts of the world.

MCDONNELL DOUGLAS AUTOMATION COMPANY
P.O. Box 516
St. Louis, Missouri 63166

PURPOSE

To provide commercial data processing services to clients in all types of industries throughout the world.

DESCRIPTION

Established in 1960, the company has complete service capabilities (including a computer facility) for data conversion and implementation, processing, teleprocessing, facilities management, consulting, systems analysis and design, and programing and training.

STAFF

The company has more than 3,400 employees. The project management area has a staff of 8 consultants who are experienced in the application of scheduling, resource allocation, cost control, risk analysis, and data processing as applied to project environments in many industries. All have M.B.A. degrees with practical experience in engineering, construction, and general management. A 12-member systems and programing staff supports the company's project management scheduling, cost control, and risk analysis programs.

EXPERIENCE

The company's project management consulting experience has been primarily in defining approaches and systems and in assisting in the

implementation of project management and control systems, particularly in the utility, transit, and design construction industries in the U.S. and Canada.

MCKINSEY & COMPANY, INC.
245 Park Avenue
New York, New York 10017

Washington Office
1700 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

PURPOSE

To assist top managements of public and private enterprises in solving major management problems and in capitalizing on opportunities to increase effectiveness, efficiency, and/or profits.

DESCRIPTION

McKinsey & Company, founded in 1910, is a general management consulting firm serving international clientele on a professional basis. The firm restricts its practice exclusively to management consulting and engages in no other profit-making business activity. It is wholly owned and controlled by an elected group of some 100 directors and principals of many nationalities; it is operated under the general direction of a managing director and executive committee chosen from this group.

The firm's policy is to undertake only those studies that involve significant management problems or policy issues in which the firm has real competence to assist and which can be solved within the scope of its assignment.

The firm's practice is conducted out of 20 offices--7 in the U.S. and 13 overseas. Each office has a high degree of professional autonomy, but all function within the same standards under the direction of the executive committee. Although each office works principally with its own clients, interoffice assignments and transfers of consultants are routine, and resources of other offices are drawn on as needed during the course of an assignment. The Washington Office, founded in 1950, provides firm-wide leadership to public enterprise practice.

STAFF

There is a total of about 600 professional consultants throughout the firm. Twenty percent hold doctorate degrees and nearly 75 percent hold other advanced degrees, mostly in management studies. Functional

areas of expertise include: strategic planning; program development and evaluation; management information; planning and control systems; organization design; management of technology; marketing and distribution; computer systems; manpower management; behavioral science; operations research and computer simulation techniques including systems and risk analysis; production control; logistics cost reduction; and management of public enterprise.

Some 26 different nationalities are represented in the consulting staff. About half of the consultants are U.S. citizens; 20 are nationals of developing countries; and almost one-third are fluent in three or more languages, ranging from English and Western European languages to Arabic, Swahili, Japanese, Russian, Czech, and Serbo-Croat. The consulting staff is supplemented by a support staff--including librarians, researchers, programmers, statisticians, and report production personnel--also numbering about 600.

The objectives of McKinsey's approach to client work in all studies undertaken are to (1) concentrate on top-management problems; (2) make its fundamental mission the improvement of organization performance, both short and long term; and (3) actively assist management to implement the firm's recommendations until expected benefits are realized.

In many studies, client personnel participate as full-time team members--an arrangement resulting in several important benefits: efforts of McKinsey consultants are multiplied; specialized skills from within the client organization can often complement McKinsey's own expertise; probability of effective implementation is enhanced by personal commitment developed by the client managers involved; and training received by client personnel can be of future value to their organization.

EXPERIENCE

In addition to the world's largest industrial companies and banks, McKinsey clientele includes a wide variety of public enterprises: national, state, and local governments in developed and developing nations; international organizations; educational institutions; and government-sponsored corporations, agencies, and institutes.

McKinsey's practice is also extensive in developing countries. It has offices in Mexico, Venezuela, and Brazil, and during the past six years, it has maintained a staff of 5 to 12 consultants in Dar es Salaam, Tanzania. As of June 1974, McKinsey had carried out studies (of the types indicated) for private and public sector clients in 18 developing countries listed below. The studies cover the full spectrum of the firm's functional areas of expertise, as well as a majority of key industries.

Algeria. Chemicals: Organization, marketing strategy, production and logistics, and manpower management.

Argentina. Food, Paper, and Wood Products: Marketing strategy, production and logistics, and productivity improvement.

Brazil. Agriculture, Electronics, and Banking: Over-all examination; strategic and facilities planning; and information, planning, and control systems.

Chile. Petroleum: Over-all examination and strategic planning.

Hong Kong. Transportation: Over-all examination and strategic planning.

Indonesia and Korea. Electronics: Production and logistics.

Kuwait. Banking: Organization; strategic planning; financial management; and information, planning, and control systems.

Liberia. Petroleum: Over-all examination and financial management.

Malta. Religious Organization: Organization and financial management.

Mauritius. Agriculture and Food: Over-all examination and strategic planning.

Mexico. Agriculture, Banking, Chemicals, Food, Paper, and Wood: Over-all examination; organization; strategic planning; financial management; information, planning, and control systems; and productivity improvement.

Morocco. Chemicals: Over-all examination and information, planning, and control systems.

Saudi Arabia. Banking: Over-all examination and organization.

Taiwan. Glass: Strategic planning.

Tanzania. Industrial Development Organization and Wholesale Distribution Transportation: Types of studies were same as those shown for Mexico, plus marketing survey, production and logistics, manpower management, and productivity improvement.

The firm has also worked with international development assistance agencies, including United Nations agencies--UNDP, UN(ESA); UNESCO, and ILO--and the World Bank Group (IBRD, IDA, and IFC). The following is a list of the major studies undertaken for these agencies:

United Nations Agencies. A broad survey of processes by which UNDP staff members initiate, carry out, and evaluate numerous agency projects throughout the world. The survey led to assistance in examining the capacity of the entire U.N. system (including UNDP and 14 other U.N. agencies) and the development of recommendations for expanding activities in the next decade.

U.N. Department of Economic and Social Affairs (ESA). Designed and planned the implementation of an integrated management system. This involved developing a program structure for ESA and specifying information and processes needed to plan, program, and budget its activities, as well as to implement and control them.

World Bank Group. Recommendations on appropriate organization structure for the Bank in light of the expanded level and scope of its activities. The study included a review of the Bank's objectives, major development activities, and operating procedures. To ensure effective management following the implementation of recommendations, the firm developed management information and planning control systems tailored to the new organization.

INQUIRIES should be directed to the firm's Washington Office.

MACRO SYSTEMS, INC. (MSI)
Twin Towers, 1110 Fidler Lane
Silver Spring, Maryland 20910

PURPOSE

To provide a full range of project management and technical services to public and private sector clients.

DESCRIPTION

MSI is a diversified management consulting firm which was established in 1968. Specific management services include:

- Program development, planning, and evaluation.
- Development of operational policies and evaluation methodologies.
- Systems design and implementation.
- Information system planning.
- Hardware/software systems analysis.
- Data management services.
- Operations research and management.
- Economic and financial services.
- Planning, programing, and budgeting.

- Industrial engineering.
- Financial management and planning.
- Evaluation of financial systems and data.
- Analysis of internal control.
- Accounting/certified audits.
- Budget preparation and analysis.
- General management and developmental services.
- Organizational analysis.
- Technical assistance and training.
- Development of training materials and internal management guides.
- Feasibility and impact assessments.

STAFF

MSI has a staff of approximately 100 professionals who focus on improving health services delivery, urban systems, and public administration. Staff members are generally combined into teams that balance the disciplines and technologies appropriate to a specific assignment. MSA has developed a Spanish-speaking management team so that currently 10 percent of available staff members have bilingual capabilities and work experience.

MSI professional staff members include: physicians, lawyers, operations research specialists, public administrators, economists, financial management analysts, certified public accountants, computer systems experts, family planning specialists, adolescent medicine experts, health facility administrators, industrial engineers, marketing researchers, comprehensive health planners, systems analysts, and health program administrators.

EXPERIENCE

A selected group of representative projects is summarized below:

Puerto Rico. Technical assistance and training to prepare annual Social Security Administration cost reports.

---. Evaluation of drug abuse treatment and prevention.

---. Technical assistance in financial management to public

employment program agents, covering over 100 state and local governments.

U.S. Department of Health, Education, and Welfare. Design and implementation of a financial management information system to support Health Maintenance Organizations (HMOs).

---. Determination of management information requirements for (Office of Education) Trio Programs (Upward Bound, Special Services, and Talent Search).

---. Management reviews of the Social and Rehabilitation Services Program of Aid to Families with Dependent Children Cash Assistance.

---. Development of evaluation strategy for the National Health Service Corps.

Southern West Virginia. Design and implementation of a family planning program for the Regional Health Council.

PUBLICATIONS

"Development and Implementation of Nationwide Manpower Training Program Statistical and Financial Reporting System." Department of Labor.

"Development of Internal Senior Management Guide to Medicaid." Vols. I and II. Department of Health, Education, and Welfare.

"Evaluation and Management Plan for the Public Health Service Regional Office Technical Assistance Function." Department of Health, Education, and Welfare.

"Evaluation of the Occupational Training Information System" Department of Labor.

"Medicaid Labor Cost Accounting System." Commonwealth of Puerto Rico. Available in English and Spanish.

"A Model Financial Management Information System, and Enrollment/Utilization Reporting System for Family Health Centers." 5 vols. Department of Health, Education, and Welfare.

"A National Evaluation for the Health Maintenance Organization Program." Department of Health, Education, and Welfare.

INQUIRIES should be directed to Vice-President, Macro Systems.

MANAGEMENT SCIENCES FOR HEALTH (MSH)

1 Broadway
Cambridge, Massachusetts 02142

PURPOSE

To support the management aspects of public sector health programs.

DESCRIPTION

MSH is a nonprofit foundation that works on both domestic and international health-related programs.

STAFF

The staff consists of approximately 20 full-time professionals with skills in medicine, management sciences, public health, training, computer systems, and applied social science. Part-time personnel are occasionally, but rarely, employed for specialized projects.

EXPERIENCE

Recent work in developing countries has ranged from short feasibility analysis studies by one staff member to full-time, long-term commitments of teams of several staff members.

In the past three years, MSA has carried out short-term, on-site analyses in Jamaica, Brazil, Antigua, Zaire, Nepal, Ghana, Turkey, Korea, the Philippines, Afghanistan, and Malaysia.

Two- to six-month projects have been executed in Nepal and the Philippines. Projects requiring one year or more have been completed or are underway in Korea, Afghanistan, and the Philippines.

Project activities can be quite diverse and include:

- Working with host government and international agency donors to plan and implement national programs for rural family health services--personnel, procedures, logistics, and organization.
- Design and implementation of health information processing procedures using local computer resources.
- Design and training for the installation of low-cost public health drug distribution systems using community and private sector channels.
- Staff and technical support for long-range national health and

population planning procedures, using appropriate analytic tools (which in practice have ranged from hand-calculated systems to computer models).

Working languages have included Farsi and Korean.

PUBLICATIONS

Project documentation exists for all activities. In some cases, project information is most appropriately obtained through the responsible developing country program director, though initial inquiries directly to MSH are welcome.

INQUIRIES should be directed to Director, Project Development.

MEHARRY MEDICAL COLLEGE
Maternal and Child Health/Family Planning,
Training, and Research Center (MCH/FP)
Nashville, Tennessee 37208

PURPOSE

To provide course work and field internships which will help African and American public health personnel to assist in developing and introducing integrated maternal and child health and family planning services in African countries.

DESCRIPTION

The Maternal and Child Health/Family Planning, Training, and Research Center was established at Meharry Medical College on July 1, 1971, with a grant from AID. The College began in 1876 as the Medical Department of the Central Tennessee College. In 1905 it was established as a separate corporation and has remained so since that time. The College has a long history of public health outreach programs both in the city of Nashville and in rural areas of the neighboring states of Arkansas and Mississippi. The MCH/FP Center is only one of several new programs which indicate the rapid and significant expansion taking place at the College.

STAFF

The Center houses a multinational and multitalented team of 25 public health specialists, who serve as an international training and advisory corps in MCH/FP. Meharry's support to the Center is enhanced

by program ties with a number of universities, colleges, and hospitals in the area.

EXPERIENCE

The first group of African MCH/FP trainees to study at Meharry under Center sponsorship arrived in September 1972. During October 1972, the Center also sponsored its first international MCH/FP conference, a ten-day, bilingual "Nurse-Midwives Conference" for 43 nurse-midwives from Africa.

Study teams made up of MCH/FP Center staff members and health professionals from other cooperating institutions have visited many African countries to begin planning possible binational MCH/FP projects, and to begin major research projects, including a study of the role and effectiveness of traditional healers in several Nigerian states. As a result of these studies, the Center has placed a team of American MCH/FP specialists in a health education and nurse training project in Botswana. This five-year program, like the Center's other international work, is sponsored by AID.

A Nutrition Planning Program is planned to begin in FY 1976 in Africa.

THE UNIVERSITY OF MICHIGAN
Center for Research on Economic Development (CRED)
506 East Liberty Street
Ann Arbor, Michigan 48108

PURPOSE

To provide research and technical assistance on development problems, particularly in Africa.

DESCRIPTION

CRED, established in 1960, is a multidisciplinary research institution of the University of Michigan. It has a special association with the Department of Economics. CRED combines research, international technical assistance, as well as collaboration with teaching programs both at the University of Michigan and at universities in the developing world. Its primary focus is on development problems in Africa, with special emphasis on Francophone countries, but the Center has also been active in Asia and Latin America, maintaining linkages throughout the world with professionals and institutions in the field of development. CRED's specific capabilities are indicated below:

Research. The Center has designed and carried out projects in a

broad range of development fields, including health delivery and health planning; income policy; migration and employment; trade and development; rural development; planning; budgeting and related matters of management and economic administration; industrial development; education; and training of economists and economic administrators.

Development Research Tools. In establishing and maintaining linkages with universities and research institutions in less developed countries, the Center has developed programs for increasing access to international development literature, for giving advice on new publications in this field, and for providing access to the University of Michigan's data processing capability.

Technical Assistance. The Center's staff and associates at the University of Michigan and overseas have participated in a variety of international development activities under U.S. and multilateral sponsorship. In general, these activities have been related to Center research interests. The Center has been responsive to special needs for short-term technical assistance competence.

Training. The Center has designed and implemented both short- and long-term study schemes in the field of development for training foreign graduate students and for giving refresher programs for foreign academics and civil servants. This has included English-language training, ancillary training at other U.S. institutions, and in-house tutoring and assistance designed to assure successful adjustment to the differences between educational methods of selected foreign institutions and those prevailing in the U.S.

STAFF

The Center currently has a professional staff of 21, of whom 12 are on long-term assignments overseas. All staff members have experience in overseas development activities. They generally combine teaching responsibilities with research and/or consulting assignments. In addition, the Center maintains an active file of over 500 development specialists classified by substantive fields, geographic experience, and language competence. Arrangements may be made for access to this roster. Full resumes are available.

In support of its international activities, the Center has established a network for language training with special emphasis on French, including associations with institutions in France and Francophone Africa. A similar network is maintained for English-language training in association with the University's English Language Institute. Over 50 percent of the current CRED staff possess French competence. A smaller group is fluent in Spanish.

EXPERIENCE

Morocco. The Center fielded a French-speaking team of economists who collaborated in drafting the country's current development plan. The project was implemented under a host-country contract financed mainly by AID but shared by the government of Morocco.

African Sahel. The Center recruited and administered 57 consultants to help alleviate the drought crisis.

Kenya. The Center cooperated with a joint project of the Ministry of Finance and Planning and AID in designing and fielding a technical assistance team from the Florida Agricultural and Mechanical University assigned to the special rural development Vihiga Project.

Liberia. The Center participated in the country's regular annual development strategy appraisals.

In addition, GRED participated in or was fully responsible for technical assistance activities in a wide range of subject areas, for example, appraisal of public health delivery system (Malaysia) and education sector (Panama); training of graduate economists (Franco-phone Africa and Vietnam); appraisal of development strategy (Sahel countries and Zaire); and review of Tunisian development performance.

THE UNIVERSITY OF MICHIGAN
School of Public Health
109 South Observatory Street
Ann Arbor, Michigan 48104

PURPOSE

To educate, train, and conduct research in the field of public health.

DESCRIPTION

Project activities in developing countries are dependent on the interests of individual faculty members and on the degree to which the proposed projects contribute to the educational or research objectives of the School. Some projects fitting this framework are outlined below.

EXPERIENCE

AID-Financed Activities

Population Planning. Projects have generally been in developing

nations. The School has been involved with programs in Malaysia and Nepal; field trials in Venezuela; internal migration in Nigeria; and international internships.

Other Activities

Environmental and Industrial Health. Conducted studies in the Caribbean, of the Aswan Dam in Egypt, and of the Orinoco River.

THE MITRE CORPORATION

P.O. Box 208

Bedford, Massachusetts 01730

PURPOSE

To provide technical direction of scientific projects by performing, engaging in, and procuring research, development engineering, and advisory services.

DESCRIPTION

MITRE, an independent nonprofit corporation, was founded in 1958 at the request of the U.S. Air Force. Although the U.S. Air Force is still its principal sponsor, MITRE has expanded its services to include support of nonmilitary programs, including other federal agencies, numerous state and municipal governments, and other organizations working in the public interest.

MITRE uses the systems approach as the basis of its project activities. This involves the consideration of all relevant factors and their interrelationships and a full range of integrated skills drawn from numerous technical and management disciplines--electrical engineering, mathematics, physics, economics, mechanical engineering, civil engineering, computer analysis, psychology, aerodynamics, sociology, city planning, meteorology, criminology, and others.

At MITRE's largest facility, located in Bedford, Massachusetts, the work ranges from research and development planning through systems design implementation and testing in four broad areas: digital systems, information systems, sensor systems, and communications systems.

MITRE's other major facility, "Washington Operations" at McLean, Virginia, is the focal point for the organization's efforts in the civil sector. Three technical divisions perform the work there:

Systems Development Division. Handles the firm's work in the areas of ground transportation; education; energy and the environment; pollution monitoring and control; two-way interactive

television and cabled city systems; methodology for conducting technology assessment; and tax administration.

National Command and Control Systems Division. Plans, designs, tests, and evaluates command and control systems, communications systems, data processing systems, sensor systems, and information systems of many types.

Air Transportation Systems Division. Development of airways and airport systems.

STAFF

More than 1,400 personnel are classified either as members of the technical staff or as associates. About 800 hold advanced degrees. The areas represented include:

Electrical or Electronic Engineering	461
Other Engineering	160
Math	218
Physics	118
Computer Science	39
Other	299

EXPERIENCE

MITRE is now engaged in or has recently completed research, studies, analyses, consultations, or other work in the above fields for civil organizations in the U.S. and other industrialized countries as indicated below. (MITRE has no recent experience involving services to less developed countries.)

U.S. Congress, House of Representatives (Committee on Administration)
Department of Health, Education, and Welfare
Department of the Interior
Department of Transportation
Environmental Protection Agency
Federal Aviation Administration
National Science Foundation
Internal Revenue Service
U.S. Postal Service
Commonwealth of Massachusetts
Council of State Governments
District of Columbia
Boston University Medical Center
Johns Hopkins University
Markle Foundation
National Cancer Institute
Civil Aviation Authority, United Kingdom

Delegation of Management, Territories, and Regions, France
Department of Transportation, Ontario, Canada

INQUIRIES should be directed to the President's Office.

ROBERT R. NATHAN ASSOCIATES, INC. (RRNA)
1200 Eighteenth Street, N.W.
Washington, D.C. 20036

PURPOSE

To aid decision-makers with economic research, planning, and consultation on all levels of activity--local, state, regional, national, and international--public and private.

DESCRIPTION

RRNA was established in 1946. The economic consulting services provided by the firm include:

- National economic policy studies.
- Development plans and programs.
- Economic analysis of specific industries and firms.
- Economic area and market surveys.

STAFF

The staff consists of approximately 45 professionals, including planners; lawyers; econometricians; engineers; and agricultural, industrial, fiscal, health, labor, environmental, energy, and transportation economists.

EXPERIENCE

Recent (1970-74) RRNA development projects which involved significant counterpart staff training and/or recommendations for policy and procedural changes by concerned host-government agencies include those listed below.

AID-Financed Activities

Ghana. Three sectoral studies (agriculture, transportation, and water resources) leading to five- and ten-year programs for

each sector.

Nigeria. Advisory services to the national Transport Planning Unit and modal agencies in all phases of preparation of the transport component of the Third Five-Year Plan.

Guyana. Study of Guyana's food crop sector, formulating priority projects and programs for sectoral development.

El Salvador and Paraguay. Study of programs using PL 480 Title II commodities to alleviate malnutrition.

RTAC. Study of book publishing and audio-visual industries under Regional Technical Aids Center projects in ten Latin American countries.

ROCAP. Study of marketing assistance activities of the Regional Office for Central America and Panama.

Project Appraisal Manuals. Preparation of a series of manuals for a preliminary appraisal of capital projects, giving guidelines for project evaluation and their application to specific sectors--agriculture, education, electric power, manufacturing, health, telecommunications, transportation, water supply, and sewage.

Country Program Analyses. Evaluations of several AID-connected programs, with proposals for revision of policies, resource inputs, procedures, and priorities.

Other Activities

Malaysia. Planning study of Penang State (including action programs in industry, tourism, and fisheries) and physical land use plan, for the government of Malaysia.

---. Multisectoral planning study of Kelantan State, including agriculture, forestry, fisheries, minerals, tourism, and transport, for the government of Malaysia.

---. Multimodal, long-term national Transport Sector Plan, including investment program, project priorities, road prefeasibility studies, for IBRD.

Northeast Brazil. Agricultural sectoral study with recommendations to improve crop and livestock production, agricultural technology, and public agricultural development programs, for IBRD.

Taiwan. Advisory services to national Transport Planning Board, focusing on intercity and urban transport planning for all modes and on establishing a transport data system.

Korea. Regional planning study for Seoul (to regulate natural development) and for Kwangju (to promote economic development), including investment programs and policies and land use plan, for UNDP.

Afghanistan. Comprehensive study of agricultural sector, producing program and policy recommendations for the Fourth Five-Year Plan, for ADB.

Venezuela. Interdisciplinary economic-physical planning study to develop coastal tourist zone, including land use and physical infrastructure plans and program feasibility.

Honduras. With Honduran Institute of Tourism, planning study for development of tourist zone, including technical-economic feasibility studies of projects and programs and physical master plan, for CABEI.

El Salvador. With Salvadoran Institute of Tourism, planning study of coastal zone, including feasibility study and implementation program for tourism development, for ADB.

Paraguay. Study of progress in agricultural sector.

Nicaragua. Study of private industrial sector.

INQUIRIES should be directed to Vice-President for Finance and Management.

NATIONAL ACADEMY OF SCIENCES

National Research Council

National Academy of Engineering--Institute of Medicine

2101 Constitution Avenue

Washington, D.C. 20418

PURPOSE

To further science and engineering in the national interest and, by Act of Congress, March 3, 1863, to investigate, examine, and report on any subject of science or technology; or public issue dependent thereon, upon request by any department of the U.S. government.

DESCRIPTION

The National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine are nongovernmental organizations with a combined elected membership of 1,836 scientists and

engineers, who are dedicated to the furtherance of science and engineering and to their use for the general welfare.

Illustrative activities are:

Commission on Natural Resources. Studies and advises on environmental pollution, land use planning, energy resources, agricultural productivity, forestry, mineral resources, and the use and protection of the oceans and atmosphere.

Commission on Socio-Technical Systems. Studies and advises on physical, technological, and industrial systems that are or may be deployed in public and private sectors to serve societal needs, specifically, the advancement and uses of technology in such service areas as transportation, communication and information transfer, building and related construction, public facilities networks, civilian protection and safety, fire prevention, and energy transmission systems.

Commission on Human Resources. Studies and advises with respect to more effective development and utilization of the nation's human resources, giving emphasis to national education and manpower utilization programs and needs.

Board on Science and Technology for International Development. Studies and engages in overseas cooperation and advisory activities with counterpart institutions on the application of science and technology to economic development of less developed countries. Projects by means of joint workshops and study groups and advisory reports to AID have focused on the management aspects of agricultural research, industrial research, environmental control, national science policy formulation, and the national research effort.

STAFF

The Academies' operating arm, the National Research Council, is composed of about 500 committees and panels, with combines participation of about 9,000 specialists, organized under four Assemblies (Life Sciences, Physical and Mathematical Sciences, Behavioral and Social Sciences, and Engineering) and four Commissions (Natural Resources, Human Resources, Socio-Technical Systems, and International Relations). These committees and panels are supported by about 1,000 full-time staff members, of whom half are professionals covering all the relevant disciplines.

EXPERIENCE

The following are examples of AID-financed activities:

Brazil. Advisory mission on the organization and administration of a scientific and technological support system for the state of Sao Paulo.

India. Workshop on the organization and administration of industrial research.

Africa. Study on a system of African agricultural research.

Worldwide. Report on research management and technical entrepreneurship with technical assistance implications.

PUBLICATIONS

"Geographical Perspectives and Urban Problems." NAS Committee on Geography, 1973.

"Management of EPA's Research and Development Activities." NAS, 1974.

"Productive Agriculture and the Quality Environment." NAS Agricultural Board, 1974.

"Remote Sensing for Resource and Environmental Surveys: A Progress Review." NAS Committee for Remote Sensing Programs of Earth Resources, 1974.

"Research Management and Technical Entrepreneurship: A U.S. Role in Improving Skills in Developing Countries." 1973.

"A Strategy for Evaluating Health Services." Institute of Medicine, 1973.

"Transportation and the Prospects for Improved Efficiency." National Academy of Engineering, 1973.

"U.S. International Firms and R, D & E in Developing Countries." 1973.

Published reports still in print are available on request from the Board on Science and Technology for International Development.

NEW ENGLAND CENTER FOR CONTINUING EDUCATION

International Programs Office
Durham, New Hampshire 03824

PURPOSE

The Office acts as the coordinating and administrative body for developing international service, training, and research programs in

and among the six state universities of New England.

DESCRIPTION

The Office, established in 1968, initiates conferences and symposia for the examination of significant problems in the international area, to which the educational resources of the region can contribute meaningful solutions. It implements the action programs which emerge, supplying independent institutional management of resources to the missions.

STAFF

The staff for these projects come from ad hoc appointments on a part-time or short-term basis. The staff's experience is in the fields of public and business administration, organizational behavior, economics, political science, and sociology.

EXPERIENCE

Korea. Management of agricultural research program to strengthen the Office of Rural Development and to coordinate research tasks with universities in Korea. With an AID grant, the International Agricultural Development Council, consisting chiefly of administrative offices in the Colleges of Agriculture in New England, supplied short-term consultants under the direction of a field leader and designed advanced training programs for participants to study at institutions in the U.S. (The Council was formed following a conference on the educational needs for agriculture in developing economies.)

Pacific Basin. Administrative aspects of comparative politics and economics. The aim of the program, under a U.S. Office of Education grant, is to improve training in business and public and institutional administration in the context of Pacific Basin relationships. Cooperative arrangements among a number of departments support the faculty through the development of administrative case studies and other replicable materials and through the training of Administrative Fellows within traditional degree programs.

Indonesia. Multinational Foundation for Social Development (OBSR). The foundation was formed with grants from the Ford Foundation and other private sources to support Indonesian social development, using multinational sponsorship and a local administrative body to guide the selection of local projects. The aim is to use the body as a model of support for developing countries, avoiding the bureaucracies of bilateral programs and the foreign control of local development aspirations. It seeks to link educational resources in the two worlds and to stress the

advancement of local managerial capabilities.

Other countries serviced in past projects include Singapore, Iran, Ecuador, Ethiopia, Malaysia, and Taiwan.

PUBLICATIONS

Gordon, B. K. "Rhetoric & Reality in Regional Cooperation," in H. B. Malmgren, Pacific Basin Development. Overseas Development Council, Lexington Books, 1972.

Gordon, B. K.; McCann; and Rothwell, K. J. (eds.). The New Political Economy in the Pacific. Ballinger Press, forthcoming.

Rothwell, K. J. Administrative Issues in Developing Economies. D. C. Heath & Co., 1972.

NTL INSTITUTE FOR APPLIED BEHAVIORAL SCIENCE
1815 North Fort Myer Drive
Arlington, Virginia 22209

PURPOSE

To apply the results of research in behavioral sciences to improve the functioning of social institutions and organizations.

DESCRIPTION

NTL, founded in 1947 as National Training Laboratories, provides services to organizations in the U.S. and abroad through consultation and training. Such services are provided both on short-term (one or two weeks) and long-term (one year or more) bases.

STAFF

NTL maintains a small central office of about 40 persons drawn from psychology, education, management, and administrative specialities.

EXPERIENCE

NTL has provided Spanish-speaking, behavioral science consultants through AID contracts to many countries in Central and South America for assistance in organization development, conference management, and institution building.

Jamaica. Organization development consultants provided to the National Family Planning Board.

Singapore, India, Japan, Guatemala, and several African countries. Speakers and resource personnel provided for seminars in organization development.

Panama. Consultant in organization development and community development supplied to the AID mission.

PUBLICATIONS

Professional articles have been published in NTL's scholarly publication, Journal of Applied Behavioral Science, and in its quarterly, Social Change: Ideas and Applications.

INQUIRIES should be directed to Director, Contracts and Consultation Division, NTL Institute.

THE RALPH M. PARSONS COMPANY
100 West Walnut
Pasadena, California 91124

PURPOSE

To provide complete engineering and construction management services to government and industry.

DESCRIPTION

Established in 1944, Parsons has offices throughout the U.S. Its international offices include those located in Buenos Aires, Mexico City, Guayaquil, Singapore, Taipei, Tehran, and Tunis.

A major part of the firm's activities are in design, engineering, and construction of processing and production facilities for the petroleum, petrochemical, gas processing, sulfur recovery, chemical, power plant, metallurgical, and mining industries. The company also engineers and designs facilities for diverse transportation and communications facilities, such as airports, docks and harbors, shipyards, rapid-transit systems, and other municipal programs. Its services encompass technical and management services for entire projects. The latter include: project/process feasibility; criteria development; environmental studies and impact statements; master planning; construction management and planning; field management and inspection; cost and schedule controls; subcontracts administration; quality con-

trol; safety program management; labor requirements and planning; labor relations consulting; start-up; operation and maintenance; and management training in engineering and construction operations.

STAFF

Parsons has an average of approximately 15,000 employees in its worldwide operations, with a nucleus of about 3,500 engineers and scientists in over 66 technical specialties. It associates with specialist firms in many fields to provide services precisely tailored to client wishes and circumstances, in some cases participating with as many as five associate firms on a single project.

EXPERIENCE

Parsons has completed a wide variety of projects in more than 82 countries and is now active in 30 nations other than the U.S. As of August 1974, 55 governments and firms had awarded 908 project contracts to Parsons.

Parsons has prepared master plans for water, land, and mineral resources and has conducted agricultural inventory and development programs for many nations with AID financing.

Kuwait, Senegal, Ivory Coast, Trucial Coast, Taiwan, India, Iran, Iraq, Pakistan, Rwanda, Dominican Republic, Tanzania, Tunisia, and Vietnam. Water and agricultural programs.

Syria and Pakistan. Food processing facilities designed and built.

India, Kuwait, Pakistan, Ecuador, Argentina, and Vietnam. Municipal systems designed and built.

UNIVERSITY OF PITTSBURGH

Graduate School of Public and International Affairs (GSPIA)
Pittsburgh, Pennsylvania 15260

PURPOSE

To meet the need for a professional school oriented toward multidisciplinary studies and solutions of problems which face public agencies in the U.S. and abroad.

DESCRIPTION

GSPIA was established in 1957. To build up the indigenous

capacity for project management in less developed countries the School has two major types of resources: (1) faculty members who teach one or more degree program courses in the field or devote the major part of a course to the subject and (2) faculty members who participate in nondegree training programs, such as the Institute of Training and Development.

Degree Program

Public Works Project Planning and Management. This course explores current techniques for evaluating competing projects to determine preferred choice. The course is also concerned with planning for effective management and scheduling of projects; assessing the extent to which projects meet objectives; benefit-cost analysis methods; appraisal of capital projects; and assessment of rates of return. It also covers current requirements and procedures for conducting environmental impact studies for public projects, and current applications of network analysis techniques for project planning and control.

Public Systems Analysis. In this course, the systems approach to public works problems and organizations is applied. In addition, general systems analysis and problem-solving models, allocation models, decision theory, network analysis, cost-effectiveness, benefit-cost analysis, and the role of systems analysis in public works decision-making are considered.

Planning and Evaluating Development Projects. This is essentially a course in project analysis or project evaluation.

Project Management in Developing Countries and Regions. This course is concerned with the inadequacies in management or administrative systems designed for planning and carrying out projects. The course examines elements of project management systems as developed in the U.S. and their utility for developing countries and regions. Among the major elements considered are traditional and matrix forms of project organization; project organizational relationships; project manager's functions, role, authority, and responsibilities; definition of project objectives, structure, and plan; project control and network systems; and strategies for improving project management systems and capabilities.

Nondegree Training Programs

Midcareer training programs are provided for public officials from the U.S. and abroad who are being prepared for broader responsibility. These programs include seminars, workshops, and institutes of from 2 to 15 weeks duration on the following subjects:

Leadership and Organizational Innovation
Management of Development Projects and Programs

Quantitative Methods in Educational and Manpower Planning
and Administration

Management of Social Change and Community Development

Administrative and Social Impact of Computers

Advanced Management for Scientists and Engineers

Workshop for Public Service Training Directors

Public Enterprise in Developed and Developing Economies:
Managerial Problems and Solutions

Administrative Management

Public Works Management: Planning and Operation

Managing External Economic Relations

University Task Force on Project/Program Management

This task force was organized early in 1974 to inventory management and administration courses which emphasize project planning and management. It found project management courses listed at graduate schools of public and international affairs, business, public health, social work, engineering, and education. The courses fell into three categories: (1) general project management courses; (2) courses in which project management is applied in a particular context, such as business education, public works, or developing countries; and (3) supportive theory or technique courses directly related to project management.

The "generic project management courses" were being offered under such titles as "Organizational Analysis: Managing Administrative Systems," "The Planning of Management Systems," and "Systems Management." Courses in which project management was being applied in a particular context were being listed under such titles as "Management Information Systems," "Management Information Systems Design," "Systems Analysis: Education Applications," "Project Planning Techniques in Higher Education," "Health Planning," "Program Development and Operations," and "Executive Management in Achieving Policy and Program Objectives." Supportive theory or technique courses directly related to project management included "Operations Management," "Basic Industrial Systems," and "Operations Design and Planning."

The inventory revealed that a number of foreign students enrolled at GSPIA who were interested in development project planning and management were taking several of the courses listed above to complement their GSPIA studies.

The following are some of the findings of the survey: (1) The field of project management required better definition. (2) Project management was being taught in a variety of ways in the various schools and there was need for integration, but integration was not likely to satisfy all needs. A recommendation of the task force was to develop a basic generic course which would be appropriate to many environments (including developing countries) and which could be taken by students in a number of schools and then supplemented by course offerings in

individual schools. Another recommendation was to develop better context-related courses, including environments of developing countries.

PUBLICATIONS

Dr. Brinckloe and Dr. Creshkoff are faculty members who teach courses mentioned in the discussion above.

Brinckloe, William D. "Application of Systems Analysis to Public Works Management."

----. Managing Organizations. Glencoe Press, to be published in 1975.

----. "Study plan for the Institutional Analysis Phase of the Metro-Wheeling Urban Study."

----. "Use of Management Science in Consulting."

Brinckloe, William D., and Deep, S. D. Introduction to Business: A Systems Approach. Prentice-Hall, 1974.

Brinckloe, William D., and Matlack, W. Public Systems Analysis. Prentice-Hall, forthcoming.

Creshkoff, A. J. "A.I.D. Project Management Cases" and "Discussion Leader's Guide."

----. "Development Project Planning and Administration."

----. "Managing A.I.D. Technical Assistance Projects."

----. "On the Meaning of a Development Project."

----. Planning and Managing Projects in Developing Countries and Regions. Forthcoming. Textbook for use in training courses and other educational programs.

----. "Regional Development Planning and Administration: A Survey Report."

----. "Strengthening Development Project Planning in Low-Income Countries."

PLANNING AND DEVELOPMENT COLLABORATIVE INTERNATIONAL (PADCO)

Suite 509

1211 Connecticut Avenue, N.W.
Washington, D.C. 20036

PURPOSE

To provide governments and private clients with the planning and management services they require to guide urban, rural, and regional development.

DESCRIPTION

PADCO, established in 1965, is a collaborative formed by experts in urban, rural, and regional planning and management in the developing countries. It brings together an international group of individuals, professional consulting organizations, and university personnel with substantial experience in the developing areas.

PADCO believes that (1) planning in developing countries is a specialization requiring the development of new methods and techniques; (2) project teams should be interdisciplinary and international in nature; (3) expertise available in a country should be utilized as fully as possible; (4) more emphasis should be placed on sustained support services than has been done in the past; and (5) not only project management but also institution building and management is important.

The basic approach to project management depends upon an understanding of the project cycle, including:

- Initial identification of problems in an individual sector or sectors.
- Identification of specific objectives likely to be affected by appropriate projects.
- Project preparation and project feasibility analysis (in which alternatives are examined).
- Selection of the preferred alternative.
- Organization and financing.
- Detailed project design.
- Project implementation.
- Monitoring during and after implementation to analyze the actual results in relation to expected results.

The services offered by PADCO which are particularly relevant to project management and institution building and management include the following: urban and rural economic analysis; cost-benefit analysis; systems analysis; organization analysis; CPM and PERT techniques; personnel and wage administration; technology and methods engineering; time analysis; cost accounting; finance and budgeting; land assessment; taxation; and information systems.

The firm provides the following kinds of training services:

- In-service training as part of the total contract.
- Special seminars and short courses.
- Advice in selection of training courses or programs outside the client country.
- Evaluation of training programs.

EXPERIENCE

The following is a partial list of major contracts involving project management:

Pakistan. A large-scale project involving the establishment of objectives for Karachi urban development. The preparation of alternative development plans, the evaluation of plans and establishment of guidelines for long-range development. As part of its work, PADCO provided support services for a pilot project to test new concepts in sites and services and utility core housing. PADCO was involved in the identification of the project and in the preliminary design and analysis of economic and financial feasibility. PADCO assisted local engineers in preparing a detailed design and is now providing support services for construction, disposition of land, and provision of economic and social services.

Haiti. PADCO is currently under contract to the United Nations to do work similar to that done in Karachi but with an even stronger action and management orientation. Work will include project identification and support for project preparation and implementation in housing, transportation, and water supply and sanitation, with concern also for urban finance and management.

Jordan. Completed assignment with AID for settlement planning and housing recommendations for East Ghor Valley. A second contract has been awarded for additional planning and for assisting the Jordanian government in the implementation of the program.

Ethiopia Rural Development. Participated in a 12-man World Bank Economic Review Mission to Ethiopia. The assignment in-

volved an analysis of the contribution of agriculture to the Ethiopian gross domestic product, a review of the agricultural components of Ethiopia's Third Five-Year Plan, and a field review of several major development projects in operation or about to go into operation.

Botswana. Advised the government of Botswana on the development of a physical planning function both on national and local levels and on the organization, structure, and staffing for such planning. The work was sponsored by the Ford Foundation.

Tanzania. Conducted for the United Nations Development Program a field review of a request from the government of Tanzania for planned development of the Mbeya Region. In addition, PADCO drafted a nine-year rural development country program with proposals for UNDP financing. The firm formulated 13 principal projects and 4 sub-projects as components of the country program, focusing on common rural credit to achieve rural development.

---. At the request of the Ministry of Lands, Housing, and Urban Development, PADCO prepared a detailed analysis of current public housing programs. The report recommended the establishment of a publicly owned urban development corporation which would develop a wide range of housing types but stress the provision of sites and services for the lowest income people and credit for building traditional housing.

Brazil. Collaborated in preparing guidelines for the integrated development of the metropolitan region of Sao Paulo, including types of supporting planning institutions and processes needed. The work was undertaken for a specially created state planning agency (GEGRAN--Grupo Executiva da Grande Sao Paulo). PADCO was subcontracted to ASPLAN, a member of a Brazilian consortium made up of ASPLAN, GPI, Neves & Paoliello, and SOTEPLAN.

---. PADCO Voorhees, Inc., produced a work program for continuing transportation planning for Sao Paulo. The program was designed to establish a continuous policy-making process, medium-range transport project programming, a transportation operational assistance program, a public transit functional integration program, and an institutional and regulatory program. Planning methodology and timing were also identified. The work was undertaken for GEGRAN.

STAFF

PADCO's working structure is as follows:

1. Members of the Board of Directors, who have extensive experience in developing areas and are in touch with the work being done in the fields from which PADCO's professional resources are drawn.

2. A permanent core staff responsible for executing policy, initiating contracts, and supervising all work.

3. Teams brought together for specific projects. The teams are composed of core staff personnel, members of the PADCO group of companies, and in some cases, other individuals and groups with work experience in developing areas brought together for the life of a project.

PUBLICATIONS

Publications and reports on any of PADCO's projects, including those listed, are available upon request.

POPULATION SERVICES INTERNATIONAL (PSI)

105 North Columbia Street
P.O. Box 1109
Chapel Hill, North Carolina 27514

New York Office
120 East Fifty-sixth Street
Suite 1520
New York, New York 10022

PURPOSE

To find new ways of bringing birth control information and services to people not now receiving them, with the ultimate goal of enhancing human well-being by reducing unwanted pregnancies and reducing population growth.

DESCRIPTION

PSI is an action-oriented, nonprofit organization incorporated on January 20, 1970. Its program emphasis is on innovation, especially in areas where other agencies do not operate. Special emphasis is placed on nonmedical avenues of delivery, with particular stress on the use of business resources, methods, and expertise in the marketing and distribution of birth control information and products. PSI selects projects which have a high potential for mass use and maximum impact and which rely for success on existing facilities. Priority program activities include test marketing of contraceptive products, contraceptive product improvements, use of commercially proven techniques to inform and motivate persons about family planning, and use of existing retail and communication resources in promoting birth control.

STAFF

PSI's staff totals 21, including 4 overseas project directors. Its professional staff has helped lead the way in the design, implementation, and management of family planning programs based on the "social marketing" model. The PSI philosophy of management advocates the maintenance of a minimal administrative staff, with functions such as market research, advertising, and packaging subcontracted to organizations with acknowledged expertise in these areas.

EXPERIENCE

Representative projects are listed below.

Completed Projects

Nigeria, Ghana, Uganda, Kenya, Sweden, Germany, Iran, Egypt, Botswana, Lesotho, and Sri Lanka. Survey of contraceptive marketing and distribution practices.

Kenya. Two-year program to develop and promote mass marketing of nonprescription contraceptives.

Philippines. One-year study to determine the potential for combining nutrition and population programing components.

Developing Countries. Survey of the potential for video tape recorders to involve influential rural opinion leaders in the promotion of birth control in developing countries.

Selected Countries. Tests of direct mail techniques to ascertain the effectiveness of a variety of motivational messages for encouraging people to practice family planning.

Current Projects

Bangladesh. Comprehensive four-year program to distribute contraceptive products and services commercially.

Philippines. Cooperation with the government to improve family planning services by utilizing various mass media techniques.

India, Malaysia, Indonesia, Philippines, Ethiopia, Ghana, and Other Developing Countries. Contraceptive marketing projects in cooperation with pharmaceutical manufacturers, local advertising agencies, and distribution firms.

PUBLICATIONS

Black, T. "An Examination of Existing and Potential Private Sector

Contributions Toward Family Planning in Four African Countries." Monograph. Chapel Hill: Carolina Population Center, May 1971.

---. "Identifying and Overcoming Barriers to the Diffusion of Knowledge about Family Planning," Advances in Fertility Control, Vol. 5, no. 3 (September 1970). Excerpta Medica Foundation, Amsterdam.

Harvey, P. D. "Development Potential in Famine Relief--the Bihar Model," International Development Review, Vol. 2, no. 4 (December 1969).

---. "Marketing Birth Control," in Using Commercial Resources in Family Planning Communication Programs: The International Experience, edited by Michael McMillan. Honolulu: University of Hawaii Press, May 1973.

INQUIRIES should be directed to Administrative Assistant, Chapel Hill office.

PRACTICAL CONCEPTS INCORPORATED (PCI)
1030 Fifteenth Street, N.W.
Washington, D.C. 20005

PURPOSE

To use tools of the natural and social sciences to (1) help clients make better decisions; (2) implement decisions after they have been made; and (3) develop systems for continued improvement in management and the analytical process.

DESCRIPTION

PCI, established in 1970, provides a full range of management services, with emphasis on the vital evaluative function that provides the connection between implementation and better projects. PCI has been particularly active in the development of evaluation and related project management systems. PCI's efforts to transfer contemporary management technology to developing countries recognize that the management challenge is greater in LDCs than in the U.S.

PCI's staff developed the "Logical Framework," which has been used by AID, CIDA, and a number of LDC governments. The framework is designed to help effect the "project management" approach to development projects, and provide a basis for the evaluation, design, and establishment of co-equal dialogue between LDC and donor managers.

STAFF

PCI's full-time, permanent staff of managers is multidisciplinary. It includes Ph.D. level economists, psychologists, physicists, lawyers, operations researchers, and health administrators. More important in their selection than academic credentials, however, is their practical experience and basic analytical competence.

PCI also has access to more than 250 associates with skills in areas not required on a full-time basis. In addition, PCI has a number of corporate associates providing expertise in such areas as construction and engineering management and computer system installation and operations.

Virtually all PCI core staff members are specialists in evaluation and project management--the mainstays of PCI's interest. A secondary area of expertise is "management system," i.e., defining processes and procedures to organize information, people, and analysis.

EXPERIENCE

PCI installed the Logical Framework system for implementing and evaluating projects in 35 AID missions. In addition, the firm has assisted in the evaluation and management of more than 400 development projects in 45 developing countries.

PCI's management training modules have been used in numerous applications over the last four years, including training of AID management trainers and LDC trainers. Basic modules, available in English, French, and Spanish, include:

- Logical Framework
- Evaluation Using the Logical Framework
- Relationship of Logical Framework to Networking
- Basic Networking
- Benefit-Cost, Cost Effectiveness, and the Logical Framework
- Program Design Using the Logical Framework
- Tricks of the Trade: Dealing with Difficult Evaluations
- Project Management and Contract Management
- Program Planning and Budgeting Systems
- Managing Group Processes

PCI is developing an integrated planning, monitoring, and evaluation system based on the Logical Framework, network techniques, and the project management "contract." Results should be available in 1975.

PUBLICATIONS

A representative list of PCI publications follows:

- "Management Technology and the Developing World."
- "Managing Experiments in Health Care Distribution."
- "Practical Concepts for Evaluation of Local Action Programs."
- "Practical Concepts for Project Evaluation."
- "Practical Concepts for Research Management & Evaluation."
- "Practical Concepts for Use of Development Indicators."

PROJECT MANAGEMENT ASSOCIATES, INC. (PMA)
 P.O. Box 1363
 Ann Arbor, Michigan 48106

PURPOSE

To carry out a professional consulting practice in the general field of management controls for task-oriented projects.

DESCRIPTION

PMA was incorporated in 1971 and is a subsidiary of Townsend and Bottum, Inc. PMA may act either as (1) the management control capability of a project management team, sharing the tasks of controlling schedules and costs; (2) a data processing service, providing management control systems to those clients with in-house management controls personnel; or (3) trainers in the theory as well as practice of management control technology.

PMA presently provides the following services to clients:

Project Management Assistance. Includes critical path planning and scheduling; budget control; manpower and resource scheduling; cash flow projections; and progress reporting.

Project Management Systems. Includes system development; system maintenance on PCS/5 scheduling system; system lease (scheduling, estimating, cost control, payroll, etc.); and data processing services on an IBM 360/50 system.

Project Management Consulting. Includes review and evaluation of existing practices; training workshops; and expert witness testimony in claims involving usage or critical path scheduling.

STAFF

PMA has a staff of six professionals. The firm also holds continuing contracts with three professionals who may be called upon if their experience is suitable to a particular project. Three professionals have specialties in project management, management science, information systems for project management, and system engineering. Three part-time (permanent) professionals have specialties in construction engineering and management, and the programming aspect of project scheduling systems. Three consultants, who are retained under contract and called upon as needed, have specialties in the design of data processing systems, construction engineering and management, and project management applications for municipal governments.

EXPERIENCE

All experience to date has been limited to the U.S. The services outlined above were provided to a number of private and public owners, general contractors, and design firms. Typical projects include planning efforts, system design management, and design-construction projects. PMA is interested in working abroad, especially in the less developed countries in Latin America and the Middle East, and it is now establishing contacts for this purpose.

PUBLICATIONS

- Kedia, S. K. "A GPSS Simulation Model for the Repair Service System of the Bell Telephone Company, Woodward District, Detroit."
- Mester, Sol E. "Close Order Planning and Evaluation: COPE (A Short Interval Scheduling Technique for Construction Projects)."
- Ponce-Campos, G. "Extension to the Solutions of Deterministic and Probabilistic Project Networks."
- . "Precedence Based CPM: An Introduction."
- Project Management Associates, Inc. "PCS/5 User's Manual."
- . "PROBE User's Manual."
- . "The Resolution of Resource Conflicts in the Scheduling of Transmission Line and Substation Work."
- . "User's Guide to Resource Allocation with REAL/360."

INQUIRIES should be addressed to Executive Vice-President, PMA.

PROJECT SYSTEMS & ASSOCIATES (PSA)

2 North Riverside Plaza
Suite 1700
Chicago, Illinois 60606

PURPOSE

To offer organizations the economies associated with the implementation of network-based project management control systems.

DESCRIPTION

PSA is a management consulting firm specializing in project management control, coordination, and/or assistance through the utilization of computerized scheduling, cost control, and cash flow systems. This advanced computer applications technology is employed in servicing owners, architects/engineers, and contractors in the planning, scheduling, and monitoring of large and complex projects--principally large-scale construction projects or developments. Functioning as a key participant in the project, it is PSA's responsibility to provide the team with the necessary information to control the project's time, cost, cash flow, resource utilization, and performance objectives.

PSA's primary areas of expertise fall into the following categories:

- Quantitative and scientific approach to managing projects through pragmatic computer-based management systems.
- Financial planning and analysis of land and/or building developments via PSA's proprietary cash flow simulation program.
- Programming new computer applications for the building and manufacturing industry, avoiding wherever possible the duplication of work previously done.
- Staff assistance in developing or directing projects. PSA involvement can range from acting on a sub-consulting basis to joint venturing to being entirely responsible for the project development as an agent of the owner. Such assistance can include the following services: (1) administration and coordination of contracts; (2) continuous cost estimating and budget cost control techniques and systems; (3) value engineering and construction technology consulting during design; (4) project cost accounting and cash management systems; (5) advance design, bidding, procurement, shop drawing, and change order techniques; (6) reviews, checking, and record keeping in each project phase; and (7) professional project team selection and organizational alternatives.

EXPERIENCE

The following are typical programs where, in most cases, PSA networks covered all phases of the projects:

- A large metropolitan area's Public Building Commission building program (20 projects).
- Two major university campus projects in the state of Illinois (9 to 12 simultaneous projects).
- The design, manufacturing, and erection of large industrial machinery systems.
- Processing plants--food; chemical; cryogenic; petroleum; mineral; natural gas; agricultural.
- Medical and research facilities, including hospitals.
- Single and multifamily residential projects and communities.

PUBLIC ADMINISTRATION SERVICE (PAS)
1313 East Sixtieth Street
Chicago, Illinois 60637

Washington Office
1776 Massachusetts Avenue, N.W.
Washington, D.C. 20036

PURPOSE

To improve government operations through consulting, research, training, publications, and related services.

DESCRIPTION

PAS is a nonprofit corporation established in 1933. Specific services include: training operations; institution building; financial administration; organization and management of agricultural projects; and management studies and installations in other sectors.

PAS also cooperates informally with a large number of public officials and organizations, universities, civic agencies, foundations, and others concerned with the improvement of government.

STAFF

The full-time salaried staff includes about 75 professionals.

Staff members average over five years of PAS service, in addition to other significant experience. Most have general competence in government plus a specialty; three-quarters have both U.S. and foreign experience; and one-third have served in two or more foreign jurisdictions. One-third of the staff members are bilingual, most often a combination of English and Spanish.

EXPERIENCE

PAS has been active in more than 50 developing countries. The following types of project services have been provided to the countries indicated below as well as to others. The projects were financed by AID, UN agencies, host countries, or other sources.

- Operation of a foreign visitors program and other technical assistance and training of foreign nationals in the U.S. Preparation of training materials in the fields of revenue and budget administration.
- Technical assistance, ranging from reconnaissance, training, or other short-term special purpose projects to undertakings by sizable teams for periods of up to several years. In developing countries, the majority of projects have involved the building of institutions (including structure, personnel, and systems) to increase the capacity of the governmental machinery to contribute to development.
- Studies, installations, and related training in financial administration, including programing; budgeting; accounting; treasury management; supply and auditing; revenue administration; intergovernmental relations; organization and management of public corporation and enterprise systems; and operating ministries, such as those for public works, commerce, industry, agriculture, education, and health. (Afghanistan, Bolivia, Brazil, Chile, China, Greece, Haiti, Honduras, Iceland, Indonesia, Iran, Israel, Liberia, Nicaragua, Spain, Tanzania, Thailand, Sierra Leone, Trinidad, Tobago, Vietnam, and the East Africa Common Services Commission.)
- Agricultural development and related projects concerning the organization and administration of government services, the management of small-holder undertakings, the development and administration of agricultural credit schemes, and the management of parastatal organizations. (Cameroon, Ecuador, Ethiopia, Honduras, Indonesia, Iran, Malaysia, and Peru.)
- Water resource, supply, and sanitation projects, including sectoral studies, assistance in establishing and managing organizations, development of financial analysis, and related managerial projects. (The Ivory Coast, Ethiopia, Ghana, Kenya, and Turkey.)

A detailed list of projects can be supplied on request to PAS.

PUBLICATIONS

PAS develops, publishes, and distributes a wide variety of publications for public officials and teachers and students of public administration. A catalogue is available.

RESEARCH FOR BETTER SCHOOLS, INC. (RBS)
Administering for Change Program (ACP)
1700 Market Street
Suite 1700
Philadelphia, Pennsylvania 19103

PURPOSE

To develop products and provide services necessary for a school district to acquire total capability to introduce and manage school improvement.

DESCRIPTION

RBS, established in 1965, believes that many good educational ideas and innovative practices fail because of faulty implementation capabilities, including those required for planning, program design, and evaluation. RBS provides instructional materials, assessment tools, workshops, and technical assistance to help schools acquire those additional skills and abilities necessary for making improvement a continuing process. Three training products, which were developed through the joint effort of RBS and the Educational Program Management Center of Ohio State University, deal specifically with project management:

Project Management Basic Principles. To provide the basic knowledge and skills needed for managers of educational improvement projects.

Project Management Executive Orientation. To familiarize top level school administrators with the basic concepts of project management and their role in supporting school improvement projects.

Proposal Development. To outline the approach for developing proposals for educational projects, such as funding or implementation of new efforts.

STAFF

The Administering for Change Program within RBS is staffed by 21 professionals who have expertise in the following areas: project management; comprehensive planning; organizational restructuring; instructional program design and development; implementation of change; and program/project evaluation.

EXPERIENCE

RBS has been deeply involved in project management training and implementation with many organizations in the U.S. It has directly provided 139 school districts and 9 state departments of education with instructional materials and/or services in project management. It has also been closely associated with the development of project management capabilities in 3 city school districts over a period of several years: Cincinnati, Ohio; Harrisburg, Pennsylvania, and Trenton, New Jersey.

PUBLICATIONS

The following are representative reports which document important steps in the creation and use of project management training materials.

Ball, J. J.; Rao, J. S.; and Valdes, A. L. "Short-Term Effects of the Educational Project Management Instructional System." Two parts: "Project Management Basic Principles" and "Project Management Executive Orientation." Philadelphia, Pennsylvania: Research for Better Schools, Inc., November 1973.

Cook, D. L., et al. "The Development of an Assessment Instrument for Determining the Need for Project Management Capability." Columbus, Ohio: Educational Program Management Center, Ohio State University, 1971. Also available: "Supplemental Report B to Final Report" and "A Synthesis of Commentary on Self-Instructional System Design."

INQUIRIES should be addressed to Director, Administering for Change Program, RBS.

THE RESEARCH TRIANGLE INSTITUTE (RTI)

P.O. Box 12194

Research Triangle Park, North Carolina 27709

PURPOSE

To conduct scientific research.

DESCRIPTION

RTI is a separately operated, nonprofit scientific research organization established in 1958 by joint action of the three major universities of North Carolina's Research Triangle Area: Duke University, the University of North Carolina at Chapel Hill, and North Carolina State University at Raleigh. The Institute is a self-supporting corporate entity operating under a Board of Governors, which includes academic officials, university scientists, industrial research executives, and businessmen. Research operations are organized into three major groups and sub-groups:

Group I: Social and Economic Systems and Human Resources.

Center for Population Research and Services; Center for Educational Research and Evaluation; Center for the Study of Social Behavior; Center for Health Studies; Statistics Research Division; and Center for Development and Resource Planning.

Group II: Physical and Life Sciences. Chemistry and Life Sciences Division and Camille Dreyfus Laboratory.

Group III: Environmental Sciences and Engineering. Environmental Studies Center; Center for Technology Applications; and Engineering Division.

The research briefs below typify the variety of research, evaluation, and management capabilities of the units listed above, especially Group I.

- Statistical design, analysis, and interpretation of experimental data for industrial and scientific purposes.
- Census evaluation and vital rates analysis; estimation of birth rates and population changes from sample surveys.
- Cost effectiveness, production control, process optimization, and quality assurance programs for business and industry.
- Projections of long-term trends in revenues, expenditures, population, employment, and income levels to provide data bases for state and regional government planning strategies.

- Evaluation of the planning and decision-making processes in programs for improving employment and educational opportunities, health care services, and income growth potential in rural areas; development of a national index of the relative economic status of rural families.
- Technical assistance to state governments in the areas of population and employment projections and manpower program planning.
- Refinement and application of randomized response, an interview technique for obtaining accurate information about sensitive personal subjects while guaranteeing complete confidentiality of the answers given.
- External audits and sample designs of public school testing programs.
- Comparison of the traditional fee-for-service system with alternative billing and reimbursement methods for the delivery of health care systems.
- Computer simulations of current and future health service delivery systems and associated manpower requirements.

STAFF

RTI has a permanent, full-time staff of 511, of whom 306 are classified as professional:

Economists (including agricultural economists), Sociologists, Mathematicians, Statisticians, and Educators	68
Political Science, Business Administration, History, Psychology, and Others	84
Engineers, Chemists, Pharmacologists, Physicists, Geologists, Meteorologists, Public Health, Physiologists, Environmental Scientists	154

EXPERIENCE

Under a recently completed contract with AID, RTI provided research and management services to AID and host-country decision-makers on a task order basis, particularly for the NESR region.

RTI has another project currently in effect (No. AID/CM/otr-c-73-202) in which the firm provides research and evaluation services on a task order basis to the Program and Policy Coordination Bureau of AID.

A contract with the Office of Economic Opportunity is concerned with developmental processes in the U.S. The study is designed to evaluate demonstration projects, the fundamental purpose of which is to articulate the needs of the poor and minorities within multi-county regions of two states.

An RTI staff member is currently posted in Ghana, working with the Planning Ministry of the government of Ghana and with the university of Ghana.

Studies have been completed recently in Brazil, Nepal, and Korea under the current contract with the PPC Bureau, AID.

RTI organized and was host to a seminar on population and development, held in April 1974, attended by scholars from Taiwan and the U.S., and sponsored by the National Science Council, the Republic of China, and the National Science Foundation.

Professional links are maintained with a number of research institutions in Africa, Asia, and Latin America.

PUBLICATIONS

A selected list of publications and reports prepared within the last three to four years is given below.

Bacon, Thomas J. (with Karen Oppenheim Mason). "Turkish Fertility: A Review of Social and Economic Correlates." RTI Report to NESAs/OPP, 21U-507-10, June 1972.

David, A. S. (with John Alden et al.). "Special Study of Korean Health Program Plans." Report to U.S. AID, Asia Bureau, May 1974.

Honeyer, Paul (with Philip C. Cooley). "An Evaluation of the Statistical Loan 512-L-076 to the Government of Brazil." Report to U.S. AID, June 1974.

Lindsey, Quentin W. (with Karen Oppenheim Mason, Kenneth Poole, Helen Gideon, and Robert W. Noyes). "An Appraisal of the Population Project of the Rural Health Research Center at Narangwal, India: The Integration of Family Planning and Rural Health Services at the Village Level." RTI Report to NESAs/OPP, 21U-507-5, 1971.

Lindsey, Quentin W. (with Mohan Man Sainju). "Population and Development Policy in Nepal: A Proposal for Research and Action." RTI Report to NESAs/OPP, 21U-507-12, February 1973.

Rulison, Michael v. E. "Report on Topical Investigation and Analysis of Nutritional Supplements in Family Planning Programs in India and Pakistan." RTI Report to NESAs/OPP, SU-509, 1970.

RESOURCES DEVELOPMENT ASSOCIATES (RDA)

P.O. Box 239

Los Altos, California 94022

PURPOSE

To provide professional management consulting and economic development assistance to less developed countries.

DESCRIPTION

Established in 1972, the company's services include:

- Economic development planning, project design, implementation, and management assistance.
- Natural resources survey and development, applications of advanced technology, multipurpose cadaster, and institutional development.

STAFF

RDA's staff is composed of professionals in the several earth sciences, management, and related supporting technologies. These include agricultural and development economists, regional planners, soils scientists, agronomists, hydrogeologists, geologists, land tenure and cadastral systems experts, operations analysts, physicists, and engineers.

These specialists have project management backgrounds, and almost all have extensive experience on international projects in less developed countries. The majority of RDA's professional staff members are proficient in at least one of the following languages: Spanish, French, Malay, Indonesian, Persian, Arabic, Italian, Turkish, Ladino, German, and Russian. RDA presently employs approximately 25 professional personnel.

EXPERIENCE

The RDA staff has recently been involved in the following projects:

Honduras. Proyecto Catastro Demostrativo, Tegucigalpa. Assisted Honduran government in the design and accomplishment of a multipurpose cadastral program. Specific duties included project design, project and technical management assistance, natural resources survey operations, economic data collection and analysis, and training of professional counterpart staff

in each of these areas to ensure a continuing national capability.

Malaysia. RECSAM (Regional Center for Science and Mathematics) Penang. Participated in the following activities: definition of goals and objectives; preparation of the management and organization plan; facilities planning; professional program design; preparation of the five-year operational plan and budget; and training of professional counterpart staff.

Guatemala. Escuintla Project, Guatemala City. Regional economic assessment and cost-benefit analysis related to the proposed new highway system in western Guatemala. The emphasis was on agricultural and transport economics. RDA trained counterpart staff in these fields.

Khmer Republic. ARCAFA (Regional Center for Archaeology and Fine Arts) Phnom Penh. Assisted ARCAFA staff in long-range planning, definition of regional archaeological problems, evaluation of regional manpower/resources survey, and preparation of operational guidelines.

Indonesia. SEAMES/BICTROP (Southeast Asian Ministers of Education Secretariat; Regional Center for Tropical Biology) Bogar. Responsible for preparation of BIOTROP's five-year development plan, including management and organization, facilities, budget, and professional programs (jointly with counterpart program managers).

Thailand. Regional Economic Development Office (RED/USAID) Bangkok. Assisted in the development and application of evaluation procedures for RED projects, including the Asian Vegetable Research and Development Center (AVRDC), Taipei, Taiwan; BIOTROP, Bogar, Indonesia; and the Intergovernmental Coordinating Committee for Family/Population Planning (IGCC), Kuala Lumpur, Malaysia.

Iran. Agricultural Development Analysis-Plan Organization, Tehran. Economic analysis of agricultural development strategy and preparation of alternative development plans. The firm worked closely with counterpart personnel at all levels.

Colombia. Proyecto Catastro, Bogota. Assisted the Instituto Geografico "Agustin Codazzi" in the design and accomplishment of a multipurpose cadastral project with emphasis on analyzing the agricultural development potential. The work included program design, management and organization planning, preparation of manuals, and training of counterpart staff personnel.

UNIVERSITY OF RHODE ISLAND
International Center for Marine Resource Development
Kingston, Rhode Island 02881

PURPOSE

To deal with problems of assistance and technological transfer related to coastal artisan fisheries and aquaculture of less developed countries.

DESCRIPTION

The Center, established in 1969, takes an interdisciplinary approach in the areas listed below. This approach includes interfacing with research groups, University programs, and government agencies in less developed countries.

- Socio-economic aspects of coastal aquaculture and coastal fisheries.
- Processing, handling, distribution, and marketing of fishery products.
- Mariculture and brackish water aquaculture.
- Coastal planning and coastal stress problems, including pollution.
- University marine programs and other provisions for building a technological capability.

STAFF

The staff includes 32 Center associates, most of whom have faculty rank.

EXPERIENCE

Puerto Rico. Study of the potential for developing fisheries and mariculture (1974).

Panama. Technological transfer program conducted through participation in consortium for food technology.

Brazil. Comparable, but larger effort than one in Panama, is currently underway.

Numerous consulting and advisory jobs are handled in connection with coastal fisheries training and development.

PUBLICATIONS

Representative publications include the following:

Chichester, C. O. "The Transfer of Training." 1974.

International Center for Marine Resource Development. "Puerto Rico Fisheries-Mariculture Development Project, Section 1." Preliminary Report. 1974.

Lampe, H. C. et al. "Prospects for Fisheries Development Assistance." 1974.

STANFORD RESEARCH INSTITUTE (SRI)

Menlo Park, California 94025

Washington Office
Rosslyn Plaza
1611 North Kent Street
Arlington, Virginia 22209

PURPOSE

To perform basic and applied research under contract for clients in business, industry, and government.

DESCRIPTION

SRI is an independent nonprofit research organization. Formerly affiliated with Stanford University, it became wholly independent in 1970. Its activities cover the physical and life sciences, engineering systems, industrial and development economics, energy economics, urban and social systems, management sciences, electronics and radio sciences, social policy, and information science.

SRI's scope is worldwide. About one-fifth of the Institute's activity is for international clients. At any one time, SRI staff members are working in about 30 countries located throughout the world. In addition to laboratories and offices in several locations in the U.S., operating bases and research staffs are maintained in London, Zurich, Tokyo, and Sao Paulo. Resident representatives are maintained in Madrid, Milan, Paris, and Stockholm. Long-term project teams are located in many countries in the Middle East, Asia, and Latin America. SRI's International Development Center is the focal point for work on problems facing the developing countries.

SRI is experienced in planning and analysis in such sectors as:

- Agriculture, resources of the land, and food supply.

- Industry, its expansion, and the outlook for specific industries.
- Mineral and energy resources.
- Manpower supply and demand, and education strategies.
- Infrastructure: transportation, communications, and power.
- Health services, including health industry economics.
- Environmental problems.
- Tourism and recreation.
- Balance of payments, government finance, and banking.
- Public and social policy, and government institutions.
- Management policy in government and private enterprise.
- National and regional development.

An inherent feature of many SRI projects is the training of counterpart staff in the techniques of research and administration.

STAFF

Chemists	115	Postdoctoral Fellows	20
Economists	115	Computer Applications	
Physicists	90	Analysts	20
Social Scientists	30	Analysts	70
Staff Scientists	35	Operations Analysts	70
Engineers	340	Systems Analysts	110
Mathematicians	40	Programers	50
Medical Scientists	35	Editors	35

EXPERIENCE

Research projects planned and implemented by SRI during the period 1970-74 in areas related to the development of a region, country, or industry include the following:

Bolivia. Feasibility of a petrochemicals complex.

Brazil. Technical assistance to the National Housing Bank for strengthening operations research analysis and control system.

---. Research management assistance to the State Council of Technology, Sao Paulo.

Colombia. The transfer of technology to Colombian industry through industrial consulting and related services.

Iran. Long-range energy plan for Iran.

Korea. Bank appraisal mission.

Kuwait. Study of proposed Kuwait Development Bank for the World Bank.

Peru. Identification of industrial possibilities.

Portugal. Technical assistance to Empresa Geral de Fomento for management development.

Spain. Evaluation and reorganization of Patronato de Investigacion Cientifica,

---. Technical research services to Instituto Nacional de Industria.

Saudi Arabia. Advisory assistance to Central Plan Organization on all sectors of the economy: agriculture, industry, education and manpower, and health.

---. Advisory assistance to the Industrial Studies and Development Center.

Thailand. Technical assistance to Thailand for an industry information and evaluation system for the Board of Investment.

AID. Dynamics of international transfer of technology.

HEW. Feasibility study of a national technical education program. International management education program. Staff development planning for adult education. Evaluation of follow-through program. Assistance in development of potential programs for a medical center. Development of alternative futures for health care delivery to Alaskan natives.

INQUIRIES concerning international matters should be addressed to Senior Director, International.

STANFORD UNIVERSITY
Institute for Communication Research
Stanford, California 94305

PURPOSE

In the international area, to examine the role of mass media in the process of social change in less developed countries.

DESCRIPTION

The Institute's major areas of interest and expertise in the international area currently include (1) planning and evaluation of radio and other media-based information systems for rural development; (2) planning and evaluation of media-based formal education projects; (3) design of formative evaluation systems for media-based projects; (4) general telecommunications policy; and (5) evaluation methodology.

The Institute maintains small M.A. and Ph.D. programs in international communication. The M.A. program in Communication Media and Social Change, begun in September 1974, accepts 10 to 15 students from less developed countries annually for a two-year program. It stresses communication theory, the role of media in development, and research and evaluation methods. Each student is expected to design, carry out, and write up a field research project during his or her second year. This program is useful for project evaluators, for policy-makers responsible for the use of media to satisfy development needs related to information and education, and for university-based communication researchers.

The Ph.D. program in international communication is very small and highly competitive. Two or three candidates are accepted each year. Its graduates are mostly professional researchers and university faculty members.

STAFF

The Institute has three full-time faculty members and a small number of research associates and advanced graduate students. As a result, the Institute's ability to become involved in a large number of projects demanding major collaboration over a long period of time is limited. However, the Institute has an essential commitment to continued fieldwork, particularly in the areas of planning and evaluation specified above.

EXPERIENCE

The Institute's staff has conducted evaluations of projects using instructional media in a large number of countries. Recent studies

include:

El Salvador. Four-year examination of the country's ITV-based educational reform.

Mexico, Ivory Coast, and American Samoa. Briefer evaluations of instructional television projects.

Mexico. Evaluation of the instructional effectiveness of radio.

Alaska. Evaluation of the value of the radio in the dissemination of health care information among native peoples.

PUBLICATIONS

The following is a list of recent publications by members of the Institute's faculty:

"The Cost of Instructional Radio and Television for Developing Countries."

"Impact of Mass Communications on Social and Cultural Systems: Some Reflections on the International Flow of Information."

"The Mass Media in Rural Education."

"The Mexican Telesecundaria: A Cost-Effectiveness Approach."

"Radio's Role in Development: Five Strategies of Use."

"Studying Instructional Television: What Should be Evaluated."

"Television and Educational Reform in El Salvador."

STANFORD UNIVERSITY

Stanford International Development Education Center
Stanford, California 94305

PURPOSE

To provide training and research to assist Third World nations develop and strengthen their own capabilities in educational planning, research, and development.

DESCRIPTION

The Center was officially established in 1962, though the program

began informally in 1954. It sponsors a program of study to prepare advanced graduate students for service in overseas educational development, and it conducts research relating to strategies in educational planning and policy-making.

Training

The Program in Development Education is designed to train citizens and leaders as development strategists for service in the Third World. Non-American participants come from ministries of education, departments of planning, U.N. agencies, colleges, and universities. Among others, the nations represented include: Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Ethiopia, Guatemala, Guyana, Haiti, Indonesia, Japan, Laos, Malaysia, Mexico, the Netherlands, Nigeria, Panama, Peru, the Philippines, Singapore, Thailand, Venezuela, the West Indies, and Zaire.

Curriculum

The Ph.D. program consists of three years of advanced training and research beyond the M.A. degree. The first two years are spent on campus in course work, and the third year is spent abroad working on a research problem which forms the data basis for the student's doctoral dissertation.

The Center also has a Latin American-Caribbean Development Education Program and a Southeast Asian Development Education Program. These two programs, of four quarters duration, offer a M.A. degree in development education and are intended for practitioners in educational planning, research, and policy-making.

Admission Requirements

Candidates for the Ph.D. program should have the M.A. degree, high academic ability, demonstrated leadership qualities, and at least two years of successful experience both at home and abroad in the area of work for which they wish to prepare themselves. Approximately five new doctoral candidates are admitted each year, with about one-half coming from the U.S. and one-half from abroad.

Participants in the M.A. programs should (1) be nationals of Latin America or Southeast Asia; (2) have a previous B.A. degree; (3) be involved in work as practitioners in areas related to educational planning, policy, and research; and (4) have demonstrated leadership potential.

Financial Assistance

Students in the M.A. programs are supported through study grants from organizations such as the Ford Foundation, UNESCO, AID, and various national governments.

Students in the Ph.D. program are supported through fellowships, assistantships, and various special study grants from international organizations and Third World governments and agencies.

Research

For several years Stanford University has engaged in a variety of research activities, giving special attention to the need for additional information related to evaluating educational development under differing national and cultural conditions. In this connection, the Center's staff (through research, writing, and other means) is building a theory and methodology of development education, focusing on modernization processes and the interdependence of the educational sector with political and socio-economic systems.

PUBLICATIONS

Special Development Education Series.

STERLING INSTITUTE

Educational Technology Center (ETC)
2600 Virginia Avenue, N.W.
Washington, D.C. 20037

PURPOSE

To work for the development and application of knowledge which will improve individual and organizational effectiveness.

DESCRIPTION

ETC specializes in advanced research and development activities in education and training. It defines "educational technology" as the application of learning theory and modern management techniques to the design and operation of cost-effective learning systems.

ETC undertakes research and development in a variety of fields, including the behavioral sciences, instructional technology, management and computer sciences, executive development, industrial training, and educational facility design. It designs and conducts multimedia learning programs, prepares instructional materials, and provides educational consulting services to government agencies, industry, and educational institutions.

ETC is involved in program development and application in the following areas: instructional systems design; instructional materials development; self-instructional materials; computer technology; learning

management systems; educational facility design; educational planning and administration; teacher education; and resource centers, including library systems.

EXPERIENCE

Examples of recent projects are listed below:

Federal Law Enforcement Training Center. ETC was selected as the educational technology consultant for this project. The firm joined with 23 federal agencies and an internationally known architect to develop the specifications for this facility, which is being designed to employ the most advanced technologies for instruction and management.

Management Communications Center. ETC developed specifications for the construction of the Center for the U.S. Office of Education. The Center serves as the hub of a communications network which will eventually include an advanced training center for personnel and communications links between headquarters and regional offices.

Community Planning. ETC was part of the architect/planner/designer team involved in developing design concepts for a new town in New Jersey. ETC was responsible for determining and planning for the educational requirements of the community, from kindergarten through continuing education, in a way to make optimal use of resources.

Advanced Educational Management Program. ETC developed this media-based, interactive, 60-hour program for the Spanish Ministry of Education and Science. The program is to be presented four times per year in Spain, and its participants are to be educational planners, administrators, and managers at the highest levels in the country.

Systems and Advanced Learning Technologies Institutes. These institutes are based on ETC's three-year research and development programs aimed at translating learning theory and laboratory findings into practice in a cost-effective, operationally feasible way. The objectives are (1) to explicate new approaches and techniques to support programs of schools and colleges; (2) to identify problem areas; (3) to examine alternative solutions; and (4) to explore the utilization of the systems approach and new "educational technologies" to increase the effectiveness of instruction for resources expended.

Industrial Skills Training Improvement. ETC designed and conducted a program to teach an advanced course in design methods to training personnel and first-line supervisors at a major oil company. The program was presented over a nine-month period, and each step

in the program was put into practice immediately after it was taught.

The Computer in Education and PPBS (Planning, Programing, Budgeting System) Concepts. ETC developed basic programs for conducting seminars on these subjects.

Library Information Systems. ETC has provided support to such organizations as the General Electric Company in the conceptualization and technical design of large, computer-based library systems. The firm also worked on a system for the National Library of Medicine.

PUBLICATIONS

Fitzpatrick, Edmund W. Individualizing Instruction and Guaranteeing Learning. (Mr. Fitzpatrick is the President of ETC.)

STONE & WEBSTER, INCORPORATED
90 Broad Street
New York, New York 10004

PURPOSE

To provide integrated services in engineering, finance, and management consulting.

DESCRIPTION

Stone & Webster, Incorporated, has a number of subsidiaries in the U.S. and overseas: Stone & Webster Engineering Corporation; Stone & Webster Securities Corporation; Stone & Webster Management Consultants, Inc.; Stone & Webster Engineering Limited (London); Stone & Webster Engineering S.A. (Paris); Stone & Webster Engineering (Holland) N.V. (Amsterdam); Stone & Webster Canada Limited; Stone & Webster Overseas Consultants, Inc.; and Stone & Webster Appraisal Corporation. The parent company coordinates the activities and policies of its subsidiaries in providing the following services:

Engineering. Design, construction, consulting, investigations, appraisals, and reports.

Finance. Financial planning, underwriting, private placement, sale and leaseback, and marketing.

Management Consulting. Development and operations of public utilities (gas, electric, and water), including studies covering pro-

duction, transmission and distribution, transportation, operations analysis, rate design and analysis, industrial development, marketing, warehousing, facilities analysis, management training, personnel development and assistance, organization, waste management, computer assistance, and appraisals.

These services, which can include feasibility studies, forecasting, evaluation, assistance, or planning, are available in nearly every part of the world. Offices are maintained in Paris, Amsterdam, Sydney, and The Hague. Resident engineering staffs are maintained in Boston, Massachusetts; Cherry Hill, New Jersey; New York; Denver, Colorado; Toronto; and London.

STAFF

The London office, with approximately 500 personnel, serves as the engineering and construction headquarters for Europe, Africa, and the Middle East. Domestically, the Engineering Corporation has a professional staff of approximately 5,000, which includes civil, structural, sanitary, mechanical, electrical, chemical, nuclear, appraisal, environmental, and quality control engineers. Management Consultants has a professional staff of approximately 225, comprised of engineers, accountants, and economists, whose combined knowledge is utilized to generate the listed management studies.

FOREIGN EXPERIENCE

Recent AID-Financed Activities

Indonesia. Advisory services to an Indonesian consulting firm to plan the power supply for the state of East Kalimantan.

Other Activities

Other foreign assignments have been executed for foreign companies and governments, domestic corporations, and agencies of the U.S. government, as well as such international organizations as the World Bank.

Brazil. Complete evaluation of the gas system for Sao Paulo, including management recommendations relating to operation, design, and construction.

Panama. Management assistance in accounting, plant operation and maintenance, computer applications, system operations and planning for Instituto de Recursos Hidraulicos y Electrificacion.

Philippines. Continuing management contract with Manila Gas Corporation.

Venezuela. Consulting concerning steam turbine generators, economic dispatching, organization, and merger study between C. A.

La Electricidad de Caracas and C. A. Luz Electrica de Venezuela.

DOMESTIC EXPERIENCE

Stone & Webster has been a consultant to utilities and industry since 1889, encompassing all facets of facilities design and management. The company's past and present list of clients includes almost every utility in the U.S. The following are the services that form the major elements of the firm's professional project management.

Utility Services: Electric, Gas, and Water. Utility management; organization studies; long- and short-term system planning; load forecasting; market and sales development; prefeasibility and feasibility studies; plant site development; cost and expense estimating; construction planning; project financial planning; operations accounting; training; computer applications; energy supply studies; operations analysis; transmission and distribution studies; environmental evaluations; and conservation practices.

Rates. Rate design; cost of service; cost allocations; accounting practices; and revenue requirements.

Industrial Services. Regional economic evaluations; area development; regional planning; ancillary capabilities; transportation; and warehousing and storage.

All of the above capabilities relate to management's directed efforts. The list does not include purely technical work that may eventually be associated with these projects.

PUBLICATIONS

Stone & Webster has made many reports for governmental bodies, utilities, and industry within the areas outlined above.

SYRACUSE UNIVERSITY

Maxwell Graduate School of Citizenship and Public Affairs
Syracuse, New York 13210

PURPOSE

To provide education, training, research, and services in public administration.

DESCRIPTION

The Maxwell School is the social science division of Syracuse

University, embracing the Departments of Anthropology, Economics, Geography, History, Political Science, Public Administration, Social and Political Psychology, and Sociology. Instruction is offered at the undergraduate, graduate, and continuing education levels, with a full range of degree work through the Ph.D. Interdisciplinary programs include: American, Latin American, South Asian, East African, Soviet, and Eastern European Studies; International Relations; Health Service Delivery; Urban and Regional Planning; Urban Transportation; and Metropolitan Studies. There is also a program in Midcareer Training and Development. In addition, cooperative programs of research and service are conducted with other professional schools in and adjacent to the University: Law, Education, Social Work, Business Administration, Engineering, the College of Forestry and Environmental Science, and the Upstate Medical Center.

EXPERIENCE

Much of the School's work is directly related to the developing world and those professionally concerned with its problems.

Education

The University averages about 100 AID-sponsored students from developing countries each year. Most are working toward M.A. degrees, some toward the Ph.D. About one-third are in the Maxwell School.

The Maxwell School averages about five AID employees per year for long-term training. Most are working toward the M.A. degree in Public Administration with a major in development.

Approximately 30 students--U.S. and foreign--are enrolled each year who focus their graduate work (either at the M.A. or Ph.D. level) on the problems of administering development.

Training

Intensive, specially designed training programs (usually noncredit) are conducted under contract. Two units are directly concerned with these programs: the International Management Development Department (IMDD) of the University College, which deals largely with foreign nationals, and the Maxwell Training and Development Program, which deals mostly with AID officials. The programs, drawing faculty from throughout the University, include:

Dynamic Management for International Executives. A six-week program sponsored annually by AID for 30 international students. The program is conducted by IMDD.

Finance and Control Leadership Program. An annual AID-sponsored program of 12 weeks duration for approximately 20 students. The program is conducted by IMDD.

Control/Leadership/Auditing Program. A six-month IMDD program conducted for ten Sudanese audit inspectors. The program is financed by the government of the Sudan.

Maxwell International Development Seminar. A one-month seminar for AID officials conducted four times a year since 1969. The seminar has an average attendance of 22.

Management Seminars for AID Project Officers. A two-week seminar conducted in the field by Maxwell faculty members. The seminars have been conducted in Addis Ababa, Monrovia, Tunis, and are scheduled for Kenya and undetermined sites in Asia. The average attendance is 25, generally including some foreign nationals.

All of the above training activities are directed toward improving the management of development.

Research

All faculty members involved in the foregoing programs are engaged in continuous research to assure the relevance of their instruction to their operationally oriented classes. Individual faculty members are associated with umbrella research efforts directed at the developing world. The following are examples of these efforts:

- Research on transportation in developing countries, sponsored by the Brookings Institution.
- Study of development planning, sponsored by the Ford Foundation.
- Microfilming and study of the Kenya archives, funded by the National Science Foundation.
- Study of institution building, funded by AID.
- Study of the design of public organizations, funded by AID (MUCIA 211G grant).
- Conference on the Training of Development Administrators, underwritten by the Ford Foundation and AID.

In addition, research of direct relevance to development administration is being conducted by doctoral students.

Services

Technical assistance is provided to development-related institutions, usually under contract on an interdisciplinary and continuing basis. Examples are listed below:

Colombia. Technical advice and assistance to the School of Administration and Finance at Medellin for the development of a program in business administration.

Kenya. Technical advice and assistance in training government officers; development of the staff and facilities of the Institute of Administration at Kabete.

Pakistan. Under a Ford Foundation grant, assistance to the government of Pakistan for the organization of the Administrative Staff College at Lahore. The School provides continuing technical support.

Tanzania. Funded by the Ford Foundation, assistance to the government of Tanzania for research and support of the Village Settlement Project.

PUBLICATIONS

The results of research on problems of the developing countries are covered by publications, papers, and reports.

INQUIRIES should be addressed to Dean, Maxwell School.

TRANSCENTURY CORPORATION
1789 Columbia Road, N.W.
Washington, D.C. 20009

PURPOSE

To provide planning, management, evaluation, and personnel services to development projects in the U.S. and abroad.

DESCRIPTION

TransCentury Corporation, established in 1967, has the capability to deliver highly structured and methodologically sophisticated surveys of project impact in nutrition, health, manpower, education, housing and community participation programs, as well as quick-turn-around assessments. In addition, it provides technical assistance in health and nutrition planning on the national, regional, and local levels.

TransCentury Corporation combines social science research, specializing in the fields indicated, with the ability to deliver practical technical assistance in program planning, management, and evaluation. It also provides recruitment, placement, and administrative support services.

STAFF

The firm has 21 full-time professionals, of whom 90 percent have advanced degrees in such fields as international economics, systems analysis, statistics, quantitative methods in social science research, hospital administration, public health, law and international relations. In addition, an extensive network for AID/OPEX (Operational Experts) recruitment enables TransCentury to call upon specialists in agriculture and other fields relevant to developing countries.

EXPERIENCE

Consulting and professional services have been performed for AID, the World Bank, the Peace Corps, governments of several Latin American and African countries, voluntary agencies, such as CARE and Catholic Relief Services, and private companies, such as Freeport Minerals, Inc. These services have been delivered in Spanish, Portuguese, French, English, and some African and Asian languages.

TransCentury Corporation is currently providing consulting services to AID's Office of Nutrition (TA/N) in national nutrition planning, providing intermittent consulting in El Salvador, Peru, Colombia, Brazil, Ghana, Thailand, and the Philippines.

More than 120 U.S. professionals have been recruited, screened, placed, and administratively supported in African institutions under the AID/OPEX program. Currently, TransCentury is supporting more than 60 professionals in nine African countries under this program.

Previous assignments have included (1) management of teams of technicians on a short-term basis for the Peace Corps; (2) evaluations of feeding programs in Brazil; (3) technical assistance to the government of Ghana to set up a domestic public service corps; (4) design of a community relations program for Freeport Minerals, Inc., in Indonesia; and (5) training in nutrition planning for voluntary agencies operating in Asia, Latin America, and Africa.

INQUIRIES should be directed to President, TransCentury Corporation.

TULANE UNIVERSITY

School of Public Health and Tropical Medicine
Institute for Health Services Research
1430 Tulane Avenue
New Orleans, Louisiana 70112

PURPOSE

To design new methods by which the total resources of the University can be channeled, stimulated, and coordinated in the development of health care delivery systems.

DESCRIPTION

The Institute, established in 1970, can call upon the full range of faculty expertise in the University. As part of the School of Public Health and Tropical Medicine, the Institute has particularly close relationships with the Departments of Health Systems Management, Health Measurement Sciences, Health Services Administration, and Environmental Health Sciences, and with various departments of the Graduate School of Business Administration.

EXPERIENCE

The Institute has been involved in a number of major project management activities. It is now in the final stages of developing a program with the Universidad de Valle in Cali, Colombia, providing a large urban health system. The program, which is sponsored by AID, involves many research areas, including training and administration. The project director and deputy are fluent in Spanish.

The Institute is also involved in project management activities in the U.S. It had complete management responsibility for designing, planning, organizing, building, and operating a major urban health system serving indigent minorities in New Orleans. This project was put into operation in one year, and it now provides primary ambulatory care to 50,000 registered patients.

The Institute has also organized and conducted a number of management training seminars for personnel involved in family planning activities.

As a subcontractor, the Institute is now providing consulting services to help with the development of special family planning programs for teenagers.

PUBLICATIONS

Major research studies by the Institute include:

IMO Feasibility Study.

JUSSIM. A computer simulation/management model for the Ford Foundation.

Self-Instructional Training Manuals for Family Planning Workers. Prepared for the Department of Health, Education, and Welfare.

U.S. DEPARTMENT OF AGRICULTURE
Graduate School

Main Office
Room 1033 South Building
U.S. Department of Agriculture
Washington, D.C. 20250

International Programs
Suite 277, National Press Building
529 Fourteenth Street, N.W.
Washington, D.C. 20045

PURPOSE

To provide consultative and customized training and development services to government agencies and employees.

DESCRIPTION

The School was established in 1921, and the International Programs were established within the School in 1959. Most of its services are in organizational development and management areas. Its programs have involved executives, managers, and project officers from less developed countries. The School conducts full-time agro-industrial and industrial project management training programs of six to nine months duration for government officers and business and industrial managers from developing countries. This training program, begun at the suggestion of AID, has the following objectives:

- To prepare the participants for planning, implementing, and administering national programs.
- To facilitate the participants' understanding and command of basic theories of agro-industrial and industrial development management.
- To help the participants develop the skills and techniques which guide the use of management concepts, approaches, tools, and methods in a variety of areas, including, but not limited to, food

processing, commercial investment, cost-benefit analysis, economic development, marketing, production, and energy.

- To enable the participants to evaluate the technical, economic, social, and commercial feasibility of development projects in business, industrial, agricultural, and government settings.

- To enable the participants to determine what needs to be done and what modern techniques are to be used in the accomplishment of social, political, and economic goals.

The program covers five phases of tailor-made activities and practical experiences, beginning with orientation and needs analysis, moving through the fundamentals of development management, the processes of agro-industrial and industrial development, management development and applications, and concluding with a detailed program evaluation. The activities involve extensive use of case studies, simulations, behavioral and quantitative techniques, interpersonal development exercises, seminar series, workshops, and live-in experiences. Practical experience is gained through a variety of other comprehensive study formats, including the use of host families, the development and refinement of project plans, films, programmed instruction, and field and observational work in industrial plants and governmental facilities.

STAFF

The School has a small full-time staff. It relies heavily on the extensive resources of the Washington, D.C., area for part-time faculty and consultants chosen to meet the specific needs of agencies and organizations.

EXPERIENCE

During the past two years, International Programs has conducted agro-industrial training for 54 participants from 12 developing countries, including Afghanistan, Bangladesh, Brazil, Ethiopia, Ghana, Guyana, Liberia, Nicaragua, Nigeria, Tanzania, Vietnam, and Yemen Arab Republic.

It has also conducted courses in French (for participants from French-speaking African and Asian countries) and in English in public administration and management, personnel administration, statistics, computer sciences, and specialized areas for AID, USDA, the Census Bureau, FAO, and others. Training is conducted in host countries as well as in the U.S.

VANDERBILT UNIVERSITY
Graduate School of Management (GSM)
2505 West End Avenue
Nashville, Tennessee 37203

PURPOSE

To provide graduate and continuing adult education and organizational counseling in management of change.

DESCRIPTION

The School was established in 1969. The project management services it offers are training, consultation, and applied research studies.

STAFF

The School has the equivalent of approximately 15 full-time staff members. All but two have terminal degrees; most have considerable experience as managers and management consultants. Two staff members are conducting research and consultation directly concerned with development project management. Others offer specialty services related to project management in conjunction with GSM training and counseling activities.

EXPERIENCE

AID. Modernization of management in less developed countries, focusing on project management. GSM developed the initial version of learning packages which may be used by trainers of project managers in less developed countries.

Brazil. Under a contract with the government, provided consulting, training, and research services to the Council of Technology of the state of Sao Paulo and Brazilian research institutes to promote the development, utilization, transfer, adaptation, and diffusion of technology in the country. This program is financed by a loan from AID to Brazil with Brazilian matching funds. Training of trainers has been done both in English and Portuguese.

PUBLICATIONS

GSM has prepared, under AID sponsorship, learning packages on project management and related subjects. In addition, two faculty members have written a series of working papers on project management.

INQUIRIES should be directed to Dean, GSM.

A. JAMES WALDRON ENTERPRISES
371 Kings Highway West
Haddonfield, New Jersey 08033

PURPOSE

To provide consulting and training services on the planning and control of capital cost construction and manufacturing projects.

DESCRIPTION

Waldron's consulting services include the following:

- Establishment of project schedules using the Critical Path Method (CPM) and the Program Evaluation and Review Technique (PERT); analysis of schedules to determine optimum resources and costs; and updating schedules as required by the project schedule. Most of these services have been provided in the area of construction of new buildings and facilities.
- Claim analysis to determine who is responsible for project delays and the time and cost impacts of such delays. The firm is available to give testimony as an expert witness in litigations.
- Training seminars in Project Planning and Control, and Legal Implications of Project Schedule.

STAFF

The firm has one principal and associates as needed for particular assignments.

EXPERIENCE

Waldron Enterprises has served as consultant on the planning of numerous capital cost projects. It has also conducted training seminars for more than 4,000 supervisors.

PUBLICATIONS

In addition to numerous articles, the firm has published the following:

Applied Principles of Project Planning and Control. Library of Congress Catalog No. 68-22562.

WOLF AND COMPANY
One Penn Plaza
New York, New York 10001

PURPOSE

To develop and maintain national consulting, research, systems, and accounting services.

DESCRIPTION

The company offers the following project management services:

- Planning and implementing industrial and economic development projects.
- Training of accounting and financial personnel.
- Consulting and research services in economic and industrial development, including industrial parts, seafood and agricultural processing facilities, area development, tourism and recreation.
- Management and organization studies.

STAFF

On July 1, 1974, the company had a full-time staff of over 700, including 600 professionals, in its 26 offices in the U.S. Operations are directed by a senior managing group.

EXPERIENCE

During the past 15 years, the company has completed some 60 assignments for AID, the Economic Development Administration, the U.S. Department of Commerce, and their predecessor agencies.

Projects for AID have been conducted in Brazil, Indonesia, Turkey, Spain, Japan, Chile, Peru, South Vietnam, South Korea, Costa Rica, Tunisia, Israel, Thailand, Laos, Iran, Pakistan, and the Philippines. Services to EDA have included projects in developing and impacted areas of 23 states.

PUBLICATIONS

"Development Planning Program for the Central Council of the Tlingit and Haida Indians of Alaska." 1972.

"Economic Development Guidelines for the Aleut Community of St. Paul Island, Alaska." 1972.

"Guidelines for a Comprehensive National Textbook Program in Brazil." 1970.

"Operational Audits of Model Cities Administration Programs in New York City." 1973.

"Ten-Year Economic Development Program for American Samoa." 1969.

NATIONAL BOARD OF YMCA'S

International Division
291 Broadway
New York, New York 10007

International Office
31 Quai Wilson
1201 Geneva
Switzerland

The Center for International Management Studies (CIMS) and World Development are two units of the International Division concerned with project management.

CENTER FOR INTERNATIONAL MANAGEMENT STUDIES (CIMS)

PURPOSE

To provide services on a voluntary, private basis to vitalize and increase management responsibility in international development.

DESCRIPTION

CIMS, established in 1961, is concerned with the following services:

- Developing better managers.
- Providing business and management information.
- Improving international corporate relations.
- Strengthening international operations.
- Influencing economic policy.

It seeks to implement its general objectives by means of action projects falling within three main fields of interest:

East-West Liaison. To increase managerial relations between the U.S. and Eastern Europe and the U.S.S.R. by means of (1) analyzing trends and implications in management theory and practice; (2) interchanging know-how and experience with regard to specific managerial problems; and (3) encouraging expansion of East-West economic relations on a mutual basis.

North-South Development. To strengthen the roles of international management in the development process by (1) defining a management strategy for development; (2) assessing current approaches to problem-solving; and (3) upgrading communication and cooperation between public and private sectors.

Industry Relations. To establish partnership between the business community and the YMCA to increase the volume and variety of services by means of (1) industrial involvement in community development; (2) educational and training activities for industrial personnel; and (3) support of YMCA activities, both personal and corporate.

STAFF

CIMS has three full-time professionals. It works through counterpart organizations in establishing its programs in various countries. For example, in Bulgaria, CIMS works with the State Committee for Science and Technical Progress, and in Czechoslovakia, with the Czechoslovakia Committee for Scientific Management.

EXPERIENCE

Training Problems of Mediterranean Countries. A regional meeting held in Beirut to develop management training programs in Turkey, Greece, Italy, Spain, the United Arab Republic, Lebanon, and Iran.

Management and International Development. A meeting held in Cleveland, Ohio, for 150 midwest executives.

United Nations and Private Sector. Consultations with specialized U.N. organizations and agencies held to determine areas of assistance and cooperation between them and the private sector in the field of management and development training.

Computers and Their Application in Industry and Education. An exchange with Bulgaria, marking the first scientific group visit from Bulgaria to the U.S. since before World War II.

PUBLICATIONS

"Chairman's Report, 1971."

"CIMS: East-West Managerial Relations."

WORLD DEVELOPMENT

PURPOSE

To increase the capacity of YMCAs in less developed countries to plan, design, implement, manage, and evaluate development activities for low income people in their countries.

DESCRIPTION

World Development, established in 1973, has the following objectives:

- To increase the technical and administrative capabilities of less developed countries to stimulate and support indigenous development efforts.
- To build indigenous infrastructures for social and economic development planning and implementation.
- To test training, management, and evaluation techniques for development activities.
- To provide coordinated multinational support and communication networks for development planning and implementation.

STAFF

The staff consists of two full-time professionals. In addition, seven staff members of the International Division serve World Development as part of their portfolios.

EXPERIENCE

Ethiopia and Sri Lanka. Assistance to YMCAs in developing agricultural, community development projects.

Liberia, Nigeria, and Kenya. Planning and consultation with YMCAs for rural development projects.

Senegal. Planning to establish a YMCA and to relate it to the problem of the Sahelian drought.

ARTHUR YOUNG & COMPANY
277 Park Avenue
New York, New York 10017

Washington Office
1025 Connecticut Avenue, N.W.
Washington, D.C. 20036

PURPOSE

To provide accounting, audit, tax, and management consulting services to commercial and governmental clients.

DESCRIPTION

Arthur Young & Company, founded in 1894, is an international accounting and management consulting firm. It has 64 domestic offices and over 100 offices in 64 foreign countries. It offers consulting services in general management; accounting systems and budgeting; financial planning and control; operational systems; project management; program evaluation and cost-benefit analysis; organization and personnel planning; data processing and industrial engineering; and work measurement programs.

STAFF

The firm has approximately 5,000 professional personnel in the U.S. and 7,000 in other parts of the world.

EXPERIENCE

The following are brief summaries of the firm's work in the area of planning and project management:

New Communities Administration, DHUD. Developed a Financial Reporting and Monitoring (FRAM) System for the New Communities Program.

Administration on Aging, DHEW. Analysis of the status of program development efforts within each region at the regional, state, and local levels. The results were used to develop specific technical assistance requirements at each level.

Postal Plans Project. A major project for the government to develop a complete project management plan for construction of two large, mechanized mail-handling facilities for processing mail in a major metropolitan area.

Civil Aeronautics Board of a Central American Government. Developed administrative, organizational, operational, and accounting procedures for the Civil Aeronautics Board and airport activities.

Indonesian Ministry of Defense (HANKAM). Conducted programs to improve the over-all management systems and capabilities of the Ministry.

Turkish Power Authority. Developed and implemented an over-all financial system for the electric power activities of this state economic enterprise.