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FROM: Education and World Affairs
Study of Manpower Needs and Educational
Capabilities in Africa

SUBJECT: Preliminary Report for Tanganyika, Uganda,
Kenya and Nigeria. Contract AID/afr-198,
June 2, 1964.

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Educational Capabilities
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Preliminary report for Tanganyika, Uganda,
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STUDY OF MANPOWER NEEDS AND EDUCATIONAL CAPABILITES

Explanatory Statement

Terms of Reference

As stated in Contract AID/afr-198, June 2, 1964, Education and World Affairs has been asked to accomplish the following:

1. Assess available data on high-level manpower needs (defined as those occupations requiring post-secondary education or training.)
2. Appraise the present and projected capabilities of indigenous African educational institutions for meeting these manpower needs.
3. Prepare an inventory of post-secondary scholarship opportunities for Africans for study in Africa and overseas.
4. To the extent time and data permit, assess the appropriateness of study by Africans in the United States, the effectiveness of its utilization, the mechanisms employed for the administration of U.S. scholarships and the relationship of overseas scholarships to the development of indigenous institutions.
5. To make recommendations concerning desirable directions of U.S. government aid.

EWA was requested to "submit data, tentative evaluations, and preliminary recommendations" for Tanganyika, (including Zanzibar), Uganda, Kenya and Nigeria on or about September 15, 1964.

Status Report

Field work was undertaken during July and August 1964, under the direction of John W. Masland, Staff director, assisted in East Africa by Thomas Ford and James R. Sheffield and in Nigeria

by Messrs. Ford, Sheffield and Allan Michie. C. W. de Kiewiet, Frederick Harbison and John McKelvey, members of the Advisory Study Committee, joined the field team in Nairobi, Kenya and Messrs. de Kiewiet and Harbison also joined the staff in Nigeria for one week.

In spite of the absences of numerous key people, it was possible to cover a good sample in each country and to obtain substantial amounts of documentary material. The staff has identified, moreover, additional individuals to be interviewed and sources of information to be utilized on the follow-up visits to these countries.

This present report consists of preliminary surveys for each of the four countries, and a summary of a meeting of the Study Committee held at the conclusion of the field work. The country surveys are not final and complete, but rather draft statements prepared in a short period of time immediately following the return of the staff to the United States. In these surveys the staff has attempted to accomplish two purposes. In the first place, they have suggested "the state of knowledge" with respect to the manpower supply and demand equation. They have indicated what has been done in the use of manpower and educational planning, who has done it, whether the government is appropriately organized to implement plans, and so forth. Secondly, the staff has summarized such data as is available.

Broadly speaking, the state of the knowledge is far from adequate. Only of one country, Tanganyika, can it be fairly stated that the government has acquired substantial data and has formulated well developed plans both with respect to manpower requirements and educational capabilities. Only Tanganyika, moreover, has assembled in usable form detailed information on the principle new source of high level manpower, its students enrolled in the University of East Africa and in institutions overseas.

A visit to Zanzibar was not possible and the situation there is such that inclusion of Zanzibar in the preliminary survey for Tanganyika was not feasible.

In Kenya, the need for systematic analysis of manpower requirements is recognized and arrangements are being made to get on with the job. The staff expects that before the completion of the study they will be able to obtain relevant data. In Kenya likewise the next few months should produce a much needed new overall educational development plan. Overseas study by Kenyan has had its chaotic features and hard data is difficult to come by. These factors mean that the preliminary report on this country is far from complete.

The picture in Uganda is not much better at this time. Manpower planning is conspicuous by its absence and it is uncertain whether the government will be able to carry out its good intentions to rectify this situation. Much has been done in educational planning in Uganda, and a plan is in process of formulation. But this work has been done without reference to an adequate manpower study. It was not possible to get detailed information on overseas study by Ugandans.

For the purpose of this study the situation in Nigeria is mixed. This, of course, is a much more complex country to assess, and time for field work was short. Much remains to be done on subsequent visits. Roughly speaking, the manpower planning situation is uncertain. A Manpower Board has been created, but it has not established an effective working relationship with other agencies of government, including the Ministry of Education, and its first comprehensive manpower survey, completed more than six months ago but still unpublished, is of questionable merit. Educational planning moves on many fronts, federal and regional, and at the University, vocational, secondary and primary levels. The overseas scholarship picture in Nigeria is ripe for very careful reexamination. There is some evidence to suggest that Nigeria before long will have more university graduates than it needs. Informants in the country almost without exception, moreover, declared that study for the first degree normally should be undertaken within the

country, not abroad. Nigeria, fortunately, will shortly have an effective registry of students at home and abroad and is establishing mechanisms to relate these students to manpower needs.

Thus, to sum up, with respect to the first three purposes of the study identified by USAID, this study identifies, what is known and what is not known. To a certain degree, the gaps are larger than the available data. The four preliminary papers report in summary fashion on the situation in each of the countries visited.

Study Committee Meeting

For the most part the meeting of the Study Committee in September was devoted to the identification of key issues and the tentative testing of recommendations. Except for this exercise, the Staff and Study Committee wish to wait until all field work has been completed before formulating definite recommendations as requested by USAID in the contract.

Work in Progress

Foreign Study: As suggested above, information on overseas study is not easy to come by and is of mixed quality. The staff has assembled a fair amount of data and is in the process of acquiring additional information. A separate report, including annexes on foreign study for each country, is now being prepared. Likewise, a separate memorandum on study by Africans in the United Kingdom also is being prepared.

University of East Africa: This institution is a novel attempt to maintain a federal university serving countries, with colleges in each but representing a certain division of labor. It is subjected to severe strains and there is uncertainty about its future as a single university. The staff hopes to prepare a separate memorandum on the University of East Africa.

Field Work: During the period October - December 1964, Messrs. Eugene W. Burgess, Donald J. Eberly and James R. Sheffield are undertaking field work in Liberia, Guinea, Nigeria, East Africa, Ethiopia, Sudan and Tunisia. The staff will prepare preliminary surveys on at least three of these countries by December. Messrs. Masland and Sheffield plan to continue field work in Africa between January and March 1965.

EDUCATION AND WORLD AFFAIRS

STUDY OF MANPOWER NEEDS AND EDUCATIONAL CAPABILITIES

Preliminary Report

TANGANYIKA

INTRODUCTION

This is a preliminary draft report of an initial survey of Tanganyika undertaken during the summer of 1964 in partial fulfillment of USAID Contract AID/afr-198 dated June 2, 1964. It is based upon observations made in Dar es Salaam from July 26 to August 1 and upon an analysis of such documentary material as has been assembled.

The report attempts to accomplish two purposes. In the first place it is in the nature of a reconnaissance, suggesting "the state of the knowledge" with respect to the equation of high level manpower demand and supply. Secondly, it summarizes such data as is available.

Generally speaking, manpower and education planning are relatively well advanced in Tanganyika and thus it is possible to respond fairly comprehensively in this preliminary report. Before the end of 1965 several additional sources of information should be available, making it possible to comply with the

terms of the USAID contract before its expiration.

Although the United Republic of Tanganyika and Zanzibar was brought into being some months prior to this preliminary survey, it has proved to be impossible to include Zanzibar in the report. It was not possible to visit Zanzibar at this time. In the areas of manpower and education planning and administration, the separate operations of Tanganyika and Zanzibar have not yet been coordinated. Before the completion of this study, however, it should be possible to secure sufficient information to include Zanzibar, as a part of the United Republic, in the final report.

It also should be noted that this preliminary report because of limitations of time available, excludes considerable material and observations, much of an analytical and comparative character, that will be treated in later reports.

And finally a few words about the make up of this paper itself. Because this is a preliminary draft, for internal use only, it has been put together through liberal use of material from other sources without the customary concern for use of evidence and conclusions presented by other authors and for direct credit for statements employed. The purpose here has been to assemble as much information as possible in the short time available. The niceties of drafting and use of sources

will be observed in subsequent reports.

The appendices list the principal documentary sources used in the report and individuals in Dar es Salaam interviewed.

Human Resource Development in Tanganyika

Tanganyika, which gained independence from British rule in December 1961, falls within the classification of "under-developed countries" (Level I) employed by Frederick Harbison and Charles A. Myers, in Education, Manpower and Economic Growth.

Level I countries, as characterized by Harbison and Myers "are those whose economic and social progress is dependent upon the continued employment of foreign high-level manpower in a wide variety of core positions in major public and private institutions. The stage of development of their indigenous human resources is insufficient to permit these countries to move forward on their own. They are traditional societies, but for the most part their ruling elites recognize that rapid economic and social progress is a political imperative in modern times. Thus, most of these Level I countries are on the move ... without exception, however, they all need external aid as a spur for progress, and they all are face-to-face with the problems of how to retain or recruit foreigners for key positions, how to use them to train their local nationals and

how to dispense with them as soon as their services are no longer needed..."

"Typically, the Level I country is an agrarian society. The vast majority of its population is rural or nomadic. And most of the rural population is engaged in subsistence activities, contributing only marginally to the market economy... The so-called modern sector of the economy consists of the Central Government and its regional and local branches, a few large plantations, trading establishments in the cities and larger villages, and some industries..."

"Industrialization along modern lines is beyond the present reach of the Level I countries, for they have neither the markets, the capital, the knowledge, nor the high-level manpower to bring it about. Their economic growth is dependent upon the development of agriculture, animal husbandry, forestry, fishing, and in some cases the discovery and exploitation of human resources..."

"In the typical Level I country, the 'employed labor force,' meaning those persons who are in some way connected with the market rather than the subsistence economy, is a very small proportion of the total population. In Tanganyika ...it is less than 10 percent. ...There is a critical shortage of all categories of high level manpower: professional and subprofessional, administrative and clerical, teachers, supervisors and senior

craftsmen." (p. 49-51)

These generalizations, and others used by Harbison and Myers to characterize the pattern of formal education and the development of employed manpower in Level I countries, well describe Tanganyika.

Tanganyika is a large country, with a land area of 341,000 square miles, nearly 30 percent larger than Texas. Much of the area is arid bush, and a considerable part of the population and economic activity is concentrated in settled areas on the coast and around the periphery. Roads and railways link the principal populated areas, but distances and dispersion are obstacles to development making transportation costly and complicating administration.

The development problems of Tanganyika are extremely heterogeneous, differing widely from one section to another, from relatively prosperous crop producing areas to arid plains peopled by nomadic cattle herders. Tribal customs and habits vary widely.

Peasant cultivators and nomadic or semi-nomadic cattle keepers form by far the largest part of the population. Of a total population of 9.4 million in 1961, only 4.4 percent were employed or only 16.7 percent of the adult male population. Of the 8.7 million Africans in 1957, less than 0.5 million were listed as being in paid employment. Trade, together with some small-scale manufacturing is largely in the hands of Indians, Pakistanis,

Goans and Arabs, who number something over 100,000 and have had more educational advantages than the Africans.

The 20,000 Europeans are administrators and technicians, together with a small number of owners or manufacturers of agricultural estates and persons engaged in commerce and industry.

The over-all population density is low, 26 per square mile in 1957. The natural increase of the African population is fairly low, about 1.6 percent a year. The Asian groups have a higher rate of increase, about 2.5 per cent a year. The size of the European population depends on the most part on net immigration. Tanganyika has no problem of population pressure analagous to that of many Asian countries, although in the areas of low production potential, there is actual land hunger.

The agricultural and livestock sectors account for over 70 percent of the physical products of the country, including subsistence and agricultural and livestock products contribute about 80 percent of export earnings against 13 percent for minerals. For some time to come the bulk of the population will continue to be engaged in agriculture and pastoralism and the task of securing a widespread increase in income rests on agricultural and livestock development. Minerals make a limited although important contribution to the economy and it would not be possible to rely upon an increase of mineral production as a major factor of development. Manufacturing development has been proceeding

rapidly but with a high rate of expansion will not become a major employer of labor. Only about 20,000 persons are employed in manufacturing establishments employing five or more persons (excluding service trades and early processing of agricultural products.)

Average income in Tanganyika has been about £20/year, and 40 percent of this takes the form of subsistence income. Only about 23 percent of the men and 7.5 percent of the women over 15 years of age in 1957 had attended school at any level. Only one tenth of one percent of the people of Tanganyika occupy the highly educated, trained and skilled positions. At the time of independence in 1961 practically all administrative, professional and technical positions were filled by expatriates.

MANPOWER REQUIREMENTS

The Development Plan

The Government of Tanganyika places very substantial emphasis upon development planning and, within this context, upon systematic analysis of its manpower requirements and effective utilization of its resources to achieve its manpower objectives. The government appears to be appropriately organized to carry out these functions, in marked contrast to the Government of Kenya and Uganda.

Development planning for Tanganyika dates from 1943, when

a development branch was established in the secretariat of the British administration. In the following year development proposals were published, and in 1946, in response to the United Kingdom Commonwealth Development and Welfare program (CD and W) a ten-year plan was prepared. This was accepted by the legislative Council in 1947. The plan was revised in 1950 and subsequently, and in 1955 was superseded by a new five-year plan. In 1961, prior to independence, a £24 million three year development plan was announced, based upon recommendations of the Economic Survey Mission of the International Bank for Reconstruction and Development. All of these plans had been essentially capital works expenditure programs, limited to the public sector of the economy.

Finally in the spring of 1964 the government issued a new Five Year Development Plan, for July 1964 to June 1969. This was produced after more than a year of effort by the Directorate for Development Planning, under the leadership of Mr. J. Faudon, Director of Planning, a French economist seconded to the Tanganyikan government. It is understood that the Plan was prepared only after rather thorough and widespread consultations within both the government and public sectors. The separate ministries, as well as industry, labor and cooperative groups and regional and local agencies were brought into the planning processes and given a

sense of participation in its making. Likewise the publication of the Plan has been followed up with a concerted effort to publicize and explain it widely. The Plan, moreover, appears to be reasonable and realistic, ambitions yet feasible.

The Five Year Plan is now the basic scheme for the development of the country, including the development of human resources. It represents Tanganyika's strategy of human resource development.

The Plan, unlike its predecessors, is a comprehensive program concerned with all aspects of development, economic and social, public and private, national and regional. It outlines ambitious objectives for the five year period which are proposed as steps toward long term goals extending up to 1980. Thus it is the first of three connected plans, one building on the other. These objectives include doubling per capita income in five years, an overall increase from £19.6 in 1961 to £45.1 in 1980, self sufficiency in skilled professional and managerial positions by 1980, and an increase in life expectancy at birth from the present 35-40 years to 50 years. The principal features of the plan are:

1. The fostering of agricultural production, principally through community development and cooperative schemes.
2. The expansion of the industrial sector.
3. Expansion of the commercial network,

4. Increase in social services, including education.

The success of the Five Year Plan will substantially increase the demand for high level manpower in Tanganyika. Expansion in manufacturing and construction for example, will use significant amounts of high level manpower.

The Five Year Plan anticipates that £246 million will be spent by the public and private sectors during the 1964-1965 period including carry over of £6.5 million from the Three Year Plan. Of this total, £72 million constitutes the development expenditure of the Central Government on its own account and £30 million funds to be made available by or through the Central Government for para statal organizations for their own programs. Local government expenditure is expected to be £10 million. The East African Common Services organization's investment programs amounting to £18 million have been included, for a total of £130 million in the public sector. The balance of gross capital formation of £116 million represents contributions of the private sector and includes £21 million to be obtained by para statal organizations from private sources.

Of the £102 million programmed from the Central Government, £22 million is anticipated from domestic savings, £80 million from loans and grants by external donors. The £116 million from the private sector includes £3.4 million in grants for health and education from voluntary agencies overseas.

This initial survey has been undertaken a short time after publication of the Development Plan. At this writing the Plan constitutes a declaration of intentions. Ministries are only now devising programs to implement the Plan. It is too soon to judge whether or not adequate resources including external aid, will be made available to make possible achievement of the Plan's ambitious goals. Even under the best of circumstances delays and shortfalls can be anticipated.

In this survey no attempt has been made to judge the state of the Tanganyikan economy. But, perhaps a few observations will be in order. The Development Plan projects an average increase in Gross Domestic Product of 6.7 percent per year. Actual growth in this part had not yet achieved this level. Prior to 1961 Gross National Product (including production for Export) had shown annual increases of about five percent, but the increase in 1961 was only 0.4 percent, due largely to drought and crop failures that year. Since that time growth has been resumed at a more favorable rate. By 1963 the expansion of the economy, in real terms of constant internal prices but current external prices, was greater than the annual rate postulated in the Five Year Plan, reaching about six percent, this high rate of growth, however, was based in large part on the agricultural sector where exceptionally high sisal prices coincided with excellent growing

conditions for most major crops. It was recognized that further growth must be based not only on increased agricultural production but also on progress in the non-agricultural sectors. The Budget Survey for 1964-1965 estimated a true increase in Gross Domestic Product for 1964, discounting any rise in internal wages or salary levels, of five percent.

In spite of this reasonably favorable picture apparent trends in wage and salary employment in the "modern" sector over the past three years have not been encouraging. From the base year of 1960, wage and salary employment appears to have dropped steadily and substantially, from 405,000 in 1960 to 339,400 in 1963, a decline of 16 percent, this in spite of an average annual rise in *G.D.P.* between four to five percent.

No satisfactory explanation of this situation has been given. One belief is that wage increases, resulting in part from introduction of minimum wage legislation, has brought about improved rationalizations in the use of labor by employers. It also is suggested that the 1963 figure may be erroneously low and that employment was nearer to 400,000. But even the adjustment would mean that employment has reached a plateau.

The proposed allocations of resources in the Five Year Plan will be 50 percent higher on an annual basis than previously. This is expected to produce an increase in wage and salary

employment that will double such employment by 1980. Even by 1970 the increase is expected to bring the level of such employment to 540,000.

Thus even with a growth in population by about 4.5 million to a total of about 14.1 million by 1980 there will be a significant expansion in the modern sector on a relative basis. At the present time this sector of about 400,000 employed supporting two million population represents about 20 percent of the population. By 1980 the 300,000 wage and salary employment, supporting four million population will represent almost 29 percent of the total population, a gain of 45 percent.

Yet in spite of these favorable expectations, Tanganyika, like other developing countries, is plagued with the problems of unemployment. While no reliable quantitative data are available there is clear evidence of a serious level of urban unemployment. As elsewhere this situation is an unfortunate by-product of development. The relatively rich and attractive but very small modern sector, set down in the midst of a very large and very poor traditional sector, acts as a magnet upon the masses of under-employed who are barely eking out a living in the rural areas. Thus the unemployed consists largely of displaced rural population.

The five Year Plan provides various programs designed to

strengthen the traditional sector. As will be noted below, educational plans also deliberately hold down on expansion of primary education, in part to minimize the problem of masses of unemployed primary school leavers.

On the basis of this preliminary survey, it is not possible to judge precisely whether or not the economy of Tanganyika will be able to sustain the costs of educational expansion provided in the Development Plan, or whether the projected educational capabilities might represent unrealistic aspirations going beyond economic capabilities. It should be noted, however, that the UNESCO Educational Planning Mission for Tanganyika which surveyed the country in June to October 1962, before the five Year Plan was prepared, concluded that "it would be most unwise to base plans for education on growth of local resources, i.e, of gross domestic product, exceeding three percent per annum in real terms." No other testimony available to this survey suggests that development plans, including those for education, are not realistic and feasible. Certainly Tanganyika should aspire to nothing less. Yet ultimately success will depend to a very considerable extent upon the degree of external assistance that becomes available.

Perhaps one of the most serious obstacles to accomplishment of the Plan may be the shortage of skilled administrators needed to work up implementing programs, to undertake feasibility studies and so on. And this brings attention back to the subject of this report, the acute need of Tanganyika for high level manpower.

Manpower Planning

The analysis of manpower requirements and the establishment of related planning goals are accomplished in Tanganyika within the context and administration of development planning as a whole. The 1961-1964 Three Year Plan included provisions for the development of secondary and technical education. The 1964-1969 Five Year Plan includes even greater emphasis upon educational and training programs designed to meet the needs of the economy and the government for high level manpower and auxiliary personnel. These programs are based on the goal that in 1980 "Tanganyika will, except for some rare and highly specialized occupations, become self sufficient in manpower in all economic fields and at all professional levels."

A number of manpower analyses for Tanganyika have been made in recent years. In 1960 a survey was made by John L. Thurston for the Ford Foundation. The following year J. Donald Kingsley and Thurston made further recommendations on manpower and education, and in 1962 Arthur D. Little, Inc. prepared a report on investment opportunities that included comments on manpower obstacles to industrialization. In 1962 Guy Hunter prepared an assessment of high-level manpower in East Africa. At the present writing the most complete and comprehensive study is the report on High Level Manpower Requirements and Resources, 1962-1967

prepared by George Tobias, at the request of the Tanganyikan Government and with the support of the Ford Foundation. The Tobias report was completed in August 1962 and published, together with the government's statement, in March 1963.

The Tobias calculations were made prior to the completion of the Five Year Development Plan, which was published more than one year later. Thus they did not take into account the higher goals projected in the new Plan.

In the process of formulating the Five Year Plan, the staff made estimates of new manpower demand requirements. These have not been published, except as they are reflected in the Plan itself. A more complete revision of the Tobias calculations, based upon the Plan and other more recent data and developments, has been undertaken under the direction of Robert Thomas, Manpower Planning Adviser. It is expected that this revision will be completed by the end of September 1964. This should be a solid piece of work. It is being accomplished not only through use of questionnaires to government agencies and employees in the private sector, but through follow up interviews and field checks and through careful coordination of definitions and categories of manpower utilized.

The declared policies of the Tanganyika Government with respect to manpower planning were set forth in its published

response to the Tobias report in March 1963. The government's statement, prepared by an inter-ministerial Working Party, declared that: "No problem facing the Government is more urgent than that of increasing the supply and improving the organization of highly qualified manpower needed for economic and social development." Tobias had made 51 separate recommendations, dealing with the establishment of a Manpower Planning Unit, the provision of statistical services, Africanization of the government, the coordination of technical assistance and advisory services, the development of long term employment objectives, the development of standards for compensation incentives, and the strengthening of educational and training opportunities. All of these recommendations were accepted in principle, and the Government statement indicated how it was prepared to carry them out.

Manpower Planning Machinery: As suggested above, the Tanganyika government appears to be well organized for purposes of development and manpower planning.

Responsibility for preparing and implementing the Five Year Plan rests with the Directorate for Development Planning. This initially was established as a separate ministry, but following the promulgation of the 1964-1969 Plan it was relocated within the office of the President. Each ministry prepares its own

plans within the framework of broad targets formulated by the Directorate and approved by the Economic Development Commission. These are then synthesized and coordinated by the Directorate. The Commission, to which the Directorate reports, is an economic policy making committee of the Cabinet chaired by the President.

While some evidence suggests that there is tension within the government with respect to the implementation of the Development Plan, due to divisions of responsibility among the Directorate for Development Planning, the Central Establishment Division of the Office of Second Vice President, and the Treasury, arrangements seem to work reasonably well.

In accordance with a recommendation of the Tobias report, a Manpower Planning Unit has been established within the Directorate for Development Planning. This has been headed since July 1963 by Robert Thomas, seconded from the Ford Foundation.

Thomas is assisted by two Tanganyikan assistant manpower officers (one of whom is on overseas study leave and both of whom are receiving special training) and a junior economist.

The Manpower Planning Unit is served by a Standing Manpower Advisory Committee composed of senior officials from ministries having major responsibilities for manpower activities. The permanent members include the Ministries of Education,

Labor, Cooperative and Community Development, National Culture and Youth, and the Establishment Division of the Vice-President's Office. In addition organizations representing workers and employers have designated representatives.

The Manpower Planning Unit is responsible for determining the manpower implications of the Five Year Plan, and for assuring that they are clearly understood, and that the measures planned are tested for their feasibility in terms of the human skills which can be made available to carry them out. The unit is also responsible for seeing that all necessary actions are taken so that the manpower requirements of the Plan, once established, are met. It works with educational and training authorities to assure that output meets the needs of economic development from the standpoint of timing, of quantity, and of skill content. The Manpower Planning Unit also coordinates technical assistance in order to assure that the skilled and professional manpower requests to, and offers of, foreign countries are related to the needs of Tanganyika.

Manpower planning is more effectively administered than in most, if not all, African countries. In part this stems from the fact that President Nyerere takes a personal interest in this matter, and the authority of his office is available to the Manpower Planning Unit. This Unit works closely with other

ministries in the identification of their manpower requirements and uses various means ranging from informal discussion and persuasion to the threat of ministerial directive to secure the participation by other agencies of government in the implementation of manpower programs. The Unit also consults with and advises representatives of education, business, and community interests.

Another element in the organization of the government for manpower planning is the Africanization Commission. This was established in February 1962 by the then Prime Minister (now President) with the charge "to undertake a detailed and comprehensive investigation into every cadre and grade in the Civil Service with a view to ensuring that a satisfactory plan for complete Africanization exists," to investigate the adequacy of in-service training schemes and to report to the Cabinet from time to time. The work of this Commission is supported by the Central Establishment Division, in the Office of the Second Vice President. Until recently, David Anderson, formerly of the British Colonial Service but seconded from the Ford Foundation, served as Staff Development Adviser in this Division, assisting in the implementation of orderly Africanization policies and procedures. Anderson now has assumed a similar position in the Kenyan Government and his position has

been filled by Edwin Rubin, also seconded from the Ford Foundation.

The Africanization Commission has issued two reports, for 1962 and 1963.

With the establishment of the Manpower Planning Unit the Government of Tanganyika is in a position to undertake further manpower assessments. As already indicated, completion of a revision of the Tobias report is anticipated at this writing. Additional surveys also are under way, including:

1. a comprehensive labor force survey, showing the size of the labor force, the nature and numbers of its major components, and extent of unemployment. Initiation of this survey with the financial assistance of the Ford Foundation, is anticipated in 1964.
2. inauguration of an employment trend series, showing wage and salary employment both agricultural and non-agricultural by industry and possibly by region, once each quarter, and
3. quarterly unemployment survey by the Union of Tanganyika Workers.

The Manpower Planning Unit, moreover, has been directed to report to the President semi-annually on manpower problems and programs. The first report, for July - December 1963, was issued early in 1964. The Manpower Planning adviser has suggested that henceforth this report be prepared on an annual basis.

Manpower Demand Calculations

At the time of this writing, the most recent estimates of manpower requirements are contained in the Tobias survey (1962), The report of the Africanization Commission for 1963, and the Report to the President on Manpower Problems and Programs for 1963. As indicated above, revised estimates are now being prepared by the Manpower Planning Unit and are anticipated shortly. Subsequent revisions of this report will take advantage of these later data.

The Tobias report declares: "Extraordinary measures are required if Tanganyika is to meet the manpower challenge of the next five years." The report to the President reiterates this statement: "Skill shortages in key government posts are so serious and of such magnitude as to foreclose any chances of carrying out the development plan, unless the problem could be resolved."

The Tobias survey covered all sectors, both public and private, and analyzed needs for both high and middle levels. The first category, as defined by Frederick Harbison, comprises persons in occupations normally requiring a university degree or its equivalent. This category includes engineers, scientists, agriculturalists, doctors, veterinarians, graduate teachers, lawyers, and persons in higher managerial and admin-

istrative posts in both public and private activity. The middle category comprises persons in occupations normally requiring one to three years of education beyond the school certificate (ordinary level) or its equivalent, including engineering technicians, agricultural assistants, nurses and medical technicians, laboratory technicians, supervisory and executive personnel, and primary and a large proportion of secondary school teachers.

Tobias found that for Tanganyika it was not meaningful to distinguish between these two categories, since manpower in both categories is in such short supply, and both require a substantial investment in education or training beyond secondary school.

Summary of Future High Level Manpower Requirements by Occupation

Estimates by George Tobias, 1962

Occupation Group	In Current Employm't	Net Additns in 5 yrs	Replacements in 5 years	Gross Additns	% of Present Employmt
Grand Total	9,331	3,819	4,235	8,054	86
<u>Administrative and professional-Total</u>	5,619	2,573	3,033	5,606	99
Engineers	390	182	209	391	100
Scientists	784	462	434	896	114
Medical	1,100	578	674	1,252	113
Teachers	1,272	673	714	1,387	109
Other Professions	511	292	201	493	96
Administrative	1,562	386	801	1,187	75
<u>Crafts-Total</u>	3,712	1,246	1,202	2,448	65
Mining	23	11	9	20	86
Transport & Communic	174	80	71	151	86
Textiles	45	-	9	9	20
Metal Working	1,706	709	599	1,308	76
Electrical	483	201	172	373	77
Construction	1,152	181	313	494	42
Food & Chemical	29	10	3	13	44
Miscellaneous	100	54	26	80	80

Thus, as defined by Tobias, there were 9,331 high level employees in Tanganyika. Of that number 5,619 were administrative and professional personnel, a total group including all individuals in the first and many in the secondary categories identified above. Tobias's second group of 3,712 craftsmen, or highly skilled manual manpower, for the most part falls below the second category, at least in terms of formal educational and training preparation.

Tobias estimated that a net addition of 2,573 administrative and professional workers and 1,246 craftsmen would be needed in five years (1962-1967). These individuals will be required for the

expansion of activities anticipated. It will be recalled that these estimates were made prior to preparation of the Five Year Development Plan. It is expected that significantly higher figures will be shown in the forthcoming revision of these estimates.

Replacement of existing personnel will create a demand even greater than expansion. It will be recalled that at the time of independence there were very few Africans in government service or in high level positions of responsibility in the private sector. Most high level personnel were Europeans, and Asians constituted much of the second level category. As one individual remarked, at the time of independence the only Africans in the Government were ministers or messengers; there were few in between! Tobias has assumed a need to replace 10 percent of the Europeans in five years because of mortality, and 70 percent by operation of the Africanization program. He has assumed a 15 percent mortality rate and a 45 percent withdrawal rate for Asians in government service and an overall replacement regardless of race, 25 percent in the private sector.

Using these assumptions, 3,033 additional workers in the administrative and professional group will be needed in five years. In the aggregate, the gross need for personnel to accommodate growth, Africanization and replacement adds up to more than

5,600 additional administrative and professional persons. This is just about the same as the entire complement of personnel in this category at the time of the Survey. In all sub-categories except "administrative" listed in the table above, the five year need is equal to or exceeds present employment. Putting it another way, in the five year period, it will be necessary to double the present complement of professional and administrative persons.

The demand for highly skilled manual workers is less, but nevertheless in five years 65 percent of the number of all employed will have to be recruited, developed, trained and made available for growth and replacement.

Thus, for the totality of high level occupations, as defined by Tobias, the five year period calls for a gross need of more than 8,000 additional trained personnel, or 86 percent of the total number employed in 1962.

It should be recalled, moreover, that his calculations were based upon modest expansion goals, prepared prior to the Five Year Plan.

In total number 8,000 may not appear to be a large figure. It amounts to less than the total enrollment of a small American University. But when considered in terms of its significance to the operation of Tanganyika's government and economy and in

terms of the acute shortage in the supply of replacements, the figure assumes critical importance.

The data presented in the Tobias study emphasizes how very thin and sparse is high level manpower in Tanganyika. Many professions and crafts are hardly known at all. The survey found in the entire country only 84 high level occupations with any employment at all represented. Most of the Social Sciences were scarcely represented, with only a handful of economists, statisticians, sociologists, social workers. There were only 57 lawyers, and the judiciary was almost entirely in the hands of expatriates. Of the 84 high level occupations found, 59 had gross additional requirements in five years of more than 100 percent to take care of expansion, Africanization, and normal replacement.

One of the largest consumers of high level manpower is the educational system itself and here also Tanganyika is in very short supply. Of a total of 850 secondary school teachers in 1964 only 18 were Africans. This situation is discussed at greater length below.

The Tobias survey was concerned with the entire economy. The Five Year Plan, completed a year later, included some estimates of manpower requirements in government service, based upon a survey of the ministries made in November 1963. It listed require-

ments in top government posts (staff Grade levels), plus administrative and professional and excluding all teachers, nurses, and police as follows:

1. Total posts in these grades	1,156
2. Expatriates presently employed	600
3. Existing vacancies and posts on notice to vacate.	324
4. Estimated loss of expatriates during the Plan 1964-1969.	326
5. Net increase in the number of persons in these skills required to carry out the Plan	352
6. Total requirements (Vacancies, losses and net increases)	<hr/> 1,002

Agriculture: Precise information is not available on the requirements for agricultural specialists in Tanganyika. Guy Hunter, in his 1962 survey, estimated a need for agricultural graduates in East Africa at 30 per year. This suggests very roughly 10 per year for Tanganyika. But this estimate was not based upon quantitative analysis. Tobias did not include the private agricultural sector in his manpower calculations. In 1963, however, D.G.R. Belshaw, lecturer in agricultural economics at Makerere, undertook an East African agricultural manpower survey, revealing a need for East Africa totalling at least 800 and probably over 900 positions requiring a first degree or post-

graduate training, with half of these in government service. Belshaw found immediate need in the period 1963-1966 for between 490 and 560 such posts. He estimated a demand for 165 to 225 post-graduate specialists in the agricultural sciences requiring two or three years training beyond the first degree. The requirements for Tanganyika alone would be less than one third in each of these categories.

Medical: A survey of medical manpower requirements in East Africa was undertaken in early 1964 by F. J. Bennett, J.S.W. Lutwama and S.A. Hall, of the faculty of medicine at Makerere. For Tanganyika they identified for the year 1962 a total of 486 medical practitioners, of whom 153 were in government service. To maintain a static situation, taking care of wastage and replacement factors, they calculated a need of 27 per year. On the basis of growth requirements, and provision of one medical practitioner for every 10,000 in the population (doubling the present 1:20,000 ratio), they calculated a requirement by 1970 to 1979 of 99 per year.

Manpower Supply and Capabilities

The foregoing section has analyzed Tanganyika's high level manpower requirements. What about the supply?

The supply is made up of those presently educated, trained

and employed, plus additional individuals who will be prepared either through educational opportunities available to Tanganyikans at home or abroad, or by upgrading present workers.

Present Manpower Stocks

At the outset it should be noted that Tanganyika is at a severe disadvantage because of the very small size of its present high level resources. Presently qualified high level manpower serves a force for the generation of additional increments of supply. It is only when a critical mass of high level manpower has been assembled that this group of people have the time, skill and willingness to train and develop additional manpower.

Tanganyika is very far from having this level of self-sustaining supply of high level human resources. The total of 9,331 employed persons in 1962 listed in the table above represented only 0.1 percent of the total population, and 2.2 percent of all wage earners in the country.

These percentages are among the lowest figures of high level manpower encountered in any country, even the least industrially developed. Of the total of 9,331, including crafts, more than 4,300 were Africans. But among the professional and technical occupations, of which there were 3,033, only 1,300 were Africans and within that group Africans were concentrated among medical technicians, nurses and teachers. Excluding these categories,

there were fewer than 200 Africans in all ranks of professional and technical workers.

The oldest Tanganyikan who holds a University degree is only 41 years of age. He is M.J.K. Nyerere, President of the United Republic!

In professional fields Tanganyikans are less well supplied than it is with wage earners. In all of Tanganyika Tobias identified only 595 registered physicians and surgeons, 178 of whom were in government service. He listed only 31 dentists, 52 registered pharmacists, 187 lawyers, 46 architects, 67 civil engineers and eight electrical engineers. Relatively few of these professionals were Africans.

The manpower supply picture within the government service is reflected in the reports of the Africanization Commission, prepared by the Central Establishment Division, in the Office of the Second Vice President. In its report for 1963 the Commission published the following figures, as of December 31, 1963:

	Est- a- blish- ment	Tanga- nyikns	Non- Tanga- yilians	Vac- an- cies	Non Tanga- nyikns leaving 1964	Estima- ted Tanga- nyikns Dec.1964	% of Tan- ganyikns to total oc- cupied perm. posts
Gross Figures	11,341	6,528	2,720	2,093	421	7,894	72.3
Senior & Middle Posts	6,898	2,782	2,642	1,474	394	3,717	53.1

The figure of 2,782 Tanganyikan citizens in senior and middle posts in December 1963 (most of whom are Africans) shows a marked gain over earlier figures. In 1961 there were 1,170 Africans in this category, in 1962 there were 1,821. It is expected that the number of citizens will rise to 3,717 by December 1964.

But once again it must be pointed out that in certain fields of activity, notably among the professions, the country is still largely, and in some cases entirely, dependent upon expertise hired from outside of the country.

↳ Educational Capabilities: With such a relatively small stock of skilled manpower, Tanganyika must turn to the output of her educational institutions to fill the gap between needs and presently available supply. But to make matters more difficult, the significant requirements are found in those occupations already short and in those demanding the greatest investment of education and training. The needs are concentrated in such occupational categories as: practically all of the professions, especially

secondary school teachers, engineers and engineering technicians, agricultural technicians, lawyers, managerial personnel, and medical personnel.

This situation places an exceedingly heavy burden upon Tanganyika's educational institutions. As indicated above, one of the principal goals of the Development Plan is achievement of self-sufficiency in high level manpower by 1980. That Tanganyika has a very long way to go to achieve this ambitious objective has been suggested in many ways in the figures cited above.

In the past the educational pattern in Tanganyika, as elsewhere in Africa, has been characterized by a substantial input into the primary grades but a high level of attrition over these first eight years. Only a small proportion of those completing primary grades particularly among Africans (as contrasted with Asian and European students), have continued into secondary schools and here again the attrition has been high. Thus relatively few students have obtained the School Certificate level (O-level completion of secondary Form 4), and even fewer have had opportunity to continue in Forms 5 and 6 to prepare for Higher School Certificate A level and possible entry into the University level.

This situation is revealed in the following school enrollment figures for November 1961, shortly before independence.

	Primary	Secondary
Africans Standards I-IV	450,644	
V-VIII	<u>55,616</u>	
Total	506,260	6,031
Asians, Goans, Others	17,297	9,991
Europeans	1,883	679

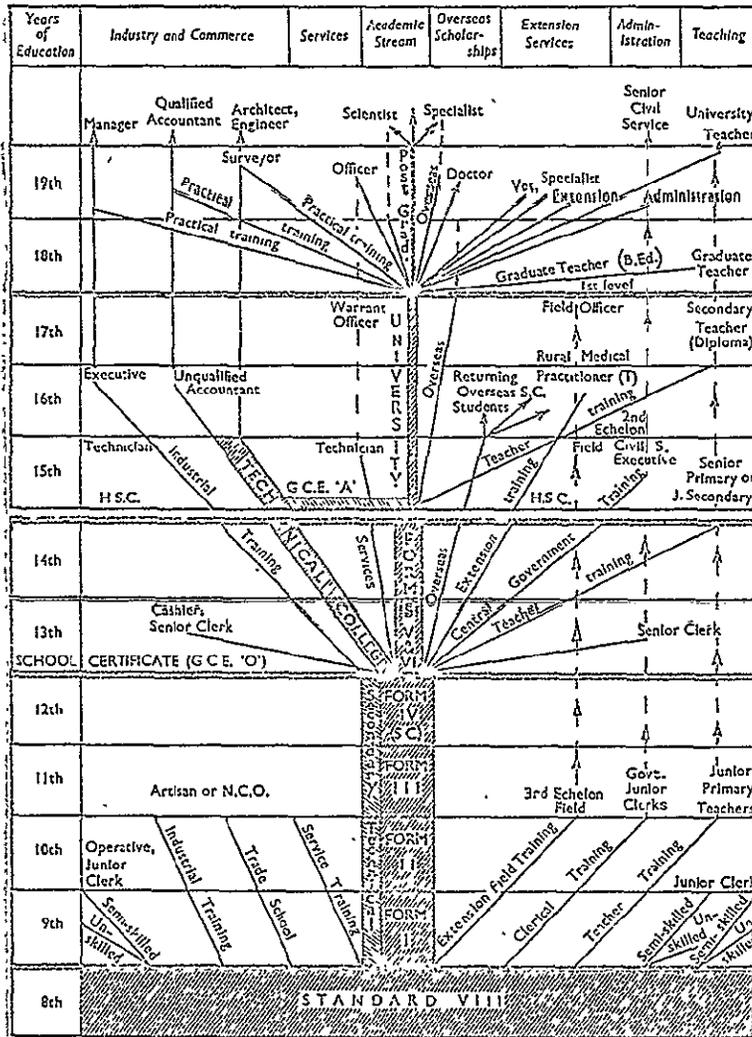
More significant are the following figures showing drop-outs in primary and secondary classes.

	<u>African</u>	<u>Asian</u>	<u>European</u>
Primary			
Standard I	138,570	3,000	400
IV	93,978	2,900	350
V	18,465	2,800	200
VIII	9,715	2,045	150
Secondary			
Form 1 entry	2,163	1,914	119
4	687	700	60

Note the heavy attrition among African students, particularly the drop from 93,978 in Standard IV to 18,465 in Standard V. Only 25 percent of African students reaching Standard VIII were entering secondary school (Form 1). In 1961 an estimated 407 African boys and 32 girls, and 400 Asian boys and 160 girls received School Certificate Passes. There were about this time four schools in Tanganyika offering fifth and sixth form courses and one school for Europeans admitted a few Africans. Makerere College, in Uganda, also offered a two year pre-entry course for East Africans. Entry to the High School Certificate examinations in 1962 among Tanganyikans was 205, with 106 passes.

(The figures cited for 1961 and 1962 are from Guy Hunter, Education for a Developing Region, A Study in East Africa, London, George Allen and Unwin, 1963, p. 25-26.

The attached chart, from Guy Hunter's Education for A Developing Area graphically illustrates the flow of students through the various levels and types of education and training into possible employment.



Educational Plans:In formulating its educational plans, the Government of Tanganyika has made some hard choices, to utilize limited resources as effectively as possible. About 24 percent of all recurrent costs and about 15 percent of the total capital investment under the Five Year Plan will go into education. To achieve the goal of self-sufficiency in high-level manpower, the government has accorded the expansion of secondary and higher education top priority, with first call on all resources which can be made available for education. This priority had been given effect during the 1961-1964 Plan, during which considerable progress was made. It has been increased and substantially accelerated in the 1964-1969 Plan. Under the Three Year Plan the Central Government made available £2.6 million for capital development and £4.8 million for recurrent expenses. Under the Five Year Plan it has projected £12.6 million for capital and £22.4 million for recurrent expenses. Even allowing for the difference in the time periods, the Five Year Plan provides almost three times the resources which were available under the earlier plan. Output from secondary form 4 is expected to increase between 85 to 100 percent, with a cumulative total of graduates for the five years of about 25,000 students.

Implementation of the priority for secondary expansion makes it necessary to hold primary (first eight grades) to

about its present level in relation to the number of individuals in this age group in the population. About half of this group is now enrolled, and an annual expansion of from 2,000 to 3,000 entrants to Standard I is contemplated to keep pace with population growth. No net progress toward the Addis Ababa goal of 100 percent primary enrollment by 1980 will be made under the Five Year Plan and it is highly unlikely that this goal will be approached by 1980. Indeed, secondary enrollment will fall short of the Addis Ababa goal of 30 percent enrollment. Slightly less than two percent of the age population is now enrolled in secondary. Even though enrollment will almost double by 1970 the percentage enrolled in the age population will rise only from 1.7 percent to 3.2 percent, owing to the large number already in the age group, plus population growth.

While planning no relative expansion in primary enrollment, the government is concerned about quality, recognizing that quality at the secondary level is adversely affected by unsatisfactory conditions in primary education. These stem from serious pre-war over crowding (all Standard I and II and 50 percent of all Standard III and IV students are on a double shift basis.), and from poorly prepared primary teachers. Unfortunately there are a large number of these teachers who have had only a primary education themselves, with varying amounts of teacher

training of questionable character.

For the present, primary teacher training does not fall within the "post-secondary classification." It should be noted, however, that the Government has a long range program for upgrading and improving the quality of primary school teachers, including consolidation and improvement of the teacher training colleges, reducing the number by about half to 10 or 12, training many more "Grade A" teachers, revising the administration of subventions and grant-in-aid to local education authorities to favor improvement, and preparation of better teaching materials and other professional services to teachers. The new Teacher Trainers for East Africa will assist in this area.

Starting in 1965 Tanganyika plans to reduce the present eight years of primary education to seven years. Through curricular revision and use of improved methods it is expected to accomplish as much instruction in one less year.

Current evidence indicates that the government of Tanganyika is determined to adhere to the decision to hold the line on primary education, in spite of the obvious political pressures to expand. This was not a random decision. It was based upon estimated requirements of the planned economic expansion, plus laying the foundation for achieving the 1980 target of self-sufficiency in manpower. As a consequence, although many local

communities since 1961 have built school building solely from local initiative, they have been warned that neither funds nor teachers will be made available to operate them.

The decision to restrict relative expansion at the primary level was based not only upon financial considerations, but upon the limits on Tanganyika's ability to produce the necessary supply of teachers for any significant increase in primary enrollment. It would not be possible to supply during the Five Year period the necessary secondary output to the teacher training colleges, in relation to equal or other more urgent claims on this output not for that matter could the teaching staffs of the teachers training schools themselves have been increased rapidly enough. Overseas recruiting of teachers, moreover, is not an effective means for securing primary teaching personnel. The Government of Tanganyika also has been disinclined to increase substantially the numbers of primary school leavers until solutions to the problems of employment of these individuals can be worked out.

Secondary Education: With respect to secondary education, it is anticipated that by 1969 the present gap between supply of secondary school output and demand will be substantially narrowed. Output is then expected to continue at levels sufficient to meet the anticipated demands in the subsequent years to 1980. Secondary education has been free since 1962.

The Five Year Plan provides for both the establishment of new secondary schools and extensions of existing schools. This expansion includes the Higher School Certificate level (Forms 5 and 6.) Wherever possible at least three streams in each school (giving an entry of 105 students each year and a total enrollment in school certificate courses rising to 420) will be established. It is planned to start 48 new streams in the next five years. This will result in 298 more streams up to school certificate and 37 more at the higher school certificate level, with an increase of from 680 to 1,280 in the higher school certificate course.

The capital development program for secondary schools is estimated to cost the Government a total of £2.6 million from the five year period. A loan of 1.65£ million from the International Development Association will cover portions of this cost. Additional contributions are expected from voluntary agencies and external donors.

Like other underdeveloped countries, Tanganyika is faced with qualitative as well as quantitative deficiencies in secondary output. Although overall output has been increasing, there has been no corresponding increase in students prepared in mathematics and science, and thus qualified for University study in some of the urgently needed areas. In 1964, for example, the Higher School Certificate output in science was only

70 out of a total of 290. Arts graduates, on the other hand, have increased substantially. Because of a lack of science, secondary graduates could not gain admittance to courses leading to degrees in the occupations which require strong science preparation. Recognizing this problem, the government has endeavored to increase the number of science classes in secondary schools. As a result, the ratio of science to arts students in the sixth form should by 1965 be four to three, a major achievement, if realized.

OUTPUT OF SECONDARY SCHOOLS, TANGANYIKA, 1955 to 1963
Projected to 1969*

Enrollment and Examination Results	Actual				Projected				
	1955	1959	1963	1964	1965	1966	1967	1968	1969
Enrollment in Form 4	398	964	2840	3750	4800	5100	5300	5700	6000
School Candidates for S.C.	385	957	2938	3800	4800	5100	5300	5700	6000
School Candidates Obtaining S.C. passes Division I and II	212	400	880	1260	1580	1680	1750	1880	2000
School Candidates Obtaining S.C. passes Division I only	70	99	251	380	480	510	530	570	600
Enrollment in Form V	20	122	466	630	800	840	920	1080	1280
Enrollment in Form VI	8	34	258	466	630	800	840	920	1080
School Candidates for H.S.C.			258	466	630	800	840	920	1080
School Candidates for H.S.C., Obtaining two or more passes at principal level			176	290	400	500	530	580	680

*The University of East Africa, Entrance Levels and Degree Structure, Report, 1964 (mimeographed), Annex C, Table 4.

The expansion of the secondary school enrollment will require a substantial increase in secondary school teachers. Indeed the educational system itself is one of the principal consumers of high level manpower. The present situation is as follows:

Total secondary school teachers:	850
Number of Graduate Teachers:	700
Expatriates	501
Local non African residents	181
Africans	18
Non-graduates	150

A secondary school teaching force of at least 1,350 will be required by 1969, a total increase of 500, half of whom ideally should be graduate teachers. When withdrawals are included, the aggregate increase in number of teachers required assumes somewhat staggering proportions a total of approximately 200 over a five year period. Although the supply of expatriate graduate teachers shows no signs of ceasing, it should be a source of great concern to Tanganyikan authorities that the teaching of their secondary school children is in the hands of expatriates. The Tanganyikan government appears to take this situation more seriously than the governments of Kenya and Uganda.

In the past only primary teachers have been trained within the country although a few of these have taught in the lower forms of the secondary schools. Since the vast majority of secondary school teachers have been recruited abroad, few were trained at home. Thus virtually no supply of African graduate teachers is

visible in the present pipeline. As already indicated, only 18 graduate secondary teachers out of a total of about 700 are Africans. The faculties of education of the constituent colleges of the University of East Africa, particularly of University College, Dar es Salaam, which enrolled the first students, a total of about 50, in a new three year degree program in 1964, will be the principal local source in the future. Only a handful of Tanganyikans are enrolled in the faculty of education at Makerere. The Ministry of Education places a high priority on the production of graduate teachers, but does not hope to fill normal needs from domestic supply in less than ten years. In the meantime reliance must be placed upon expatriates, including such sources as Teachers for East Africa and the Peace Corps.

The faculty of education of University College, Dar es Salaam through the closely related Institute of Education, is establishing close links with the teacher training colleges, for purposes of coordinating and improving all teacher education at both the primary and secondary levels in Tanganyika. Syllabus and curriculum reform will receive particular attention. Under the new dean of the faculty of education, Professor Reginald Honeybone, University College Dar es Salaam appears to be making bold and imaginative plans to cooperate closely with the Ministry of Education and other authorities in working toward solutions of Tanganyika's acute need for secondary school teachers.

University Education

Beyond the secondary school level, Tanganyika now offers opportunities for education and training in the University of East Africa and in several technical and vocational institutions.

The University of East Africa represents a novel attempt to create a federal University composed of constituent colleges and faculties established in three countries, Kenya, Tanganyika and Uganda. Makerere College, in Kampala, University College Nairobi (formerly the Royal Technical College) and the new University College Dar es Salaam are the principal elements. Overall the University offers programs in the arts and sciences, law, medicine, engineering, administration, education, agriculture, architecture, and veterinary science. But the total number of Tanganyikan students enrolled remains relatively low.

The University of East Africa is now operating under a development plan for the 1964-1967 triennium that was prepared in mid 1963. This plan incorporated the following basic principles:

1. Each of the three Colleges will develop comparable faculties in the arts, sciences and education, so that by 1967-68 the resources of Dar es Salaam and Nairobi will be equivalent to those of Makerere, the original institution.

2. There is to be no duplication of expensive professional

subjects such as medicine, law, engineering, veterinary science, agriculture and architecture.

3. There is to be as rapid an increase as possible in the numbers of East African staff, both administrative and academic.

4. (a) All qualified East African students will be admitted to the University if facilities are available.

(b) Entry of students to the professional faculties will be on the basis of merit, tempered by the need for balanced representation for the three East African countries.

5. The development plan, so far as the common faculties are concerned, is based upon the free choice of students, dependent upon the availability of places, but ensuring the viability of these faculties in the three colleges. If within this framework the University cannot ensure the numbers of students so required, the East African governments will take steps to make available the necessary numbers of students to make those faculties viable.

University College, Dar es Salaam, the first institution of University level, was founded in 1961 and the first students, about 14 in number, all enrolled in the faculty of law, were admitted in October of that year. The College now has moved from temporary quarters in Dar es Salaam to handsome new buildings on an attractive site in Observation Hill eight miles to the north. Courses of study are offered by faculties of law, arts, and

social science. A faculty of science is being assembled at this writing. The College also includes a Department of Extramural Studies and an Institute of Public Administration. An Institute of Education has just been established.

The University of East Africa Development Plan projects the following enrollments:

	<u>1963-64</u>	<u>1964-65</u>	<u>1965-66</u>	<u>1966-67</u>
Makerere University College	749	794	854	894
University College, Nairobi	531	638	778	918
University College, Dar es Salaam	<u>84</u>	<u>195</u>	<u>375</u>	<u>505</u>
	1,364	1,627	2,007	2,317

The enrollment figures were accepted for further planning by the University Grants Committee in March 1964. At this writing, data on actual enrollments for 1964-65 are not available, but it is possible that they will be somewhat higher than projected, at least at Makerere.

The Tanganyika Five Year Plan, prepared after the University Development Plan, projected the following numbers of Tanganyikans entering the University of East Africa.

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Number of Tanganyikan students entering UEA	178	312	408	480	504	528

Professor E. F. Sheffield, who served as statistical consultant to the University of East Africa committee on entrance levels and degree structure, in a report prepared in July 1964 showed an

intake of Tanganyikans into the University of East Africa for 1963 of 111 students and for 1964 of 209. This suggests that the enrollments projected by the University Development Committee will be exceeded. It should be recalled, however, that a substantial portion of the students here listed are Asians rather than Africans.

Technical and Vocational Education

In addition to the University, there are other post-secondary educational programs that contribute to the preparation of high level manpower in Tanganyika. As elsewhere in Africa, these institutions have not yet acquired sufficient prestige in the mind of students. The educational system of the country is such that all secondary school students aspire to enroll in sixth form courses and to go on to a university education. Technical and vocational occupations, moreover, are not highly regarded and compensation patterns also favor university graduates over graduates of non-degree institutions. Thus technical and vocational institutions enroll students who have not attained university admission, and many of these hope to use the lesser opportunity to gain admission to the university later on.

Medical Training Center: This situation is reflected, for example, in recent changes that have taken place in the Medical Training Center at Dar es Salaam. The University of East Africa medical school at Makerere has been available to Tanganyika, but actually the country in the past has not had enough qualified students to fill its quota of about 15 students a year at Makerere. Medical training within Tanganyika has operated for some time at the sub professional level, at the Medical Training Center, under the aegis of the Ministry of Health. This center had its origins during the colonial period to train medical

assistants, and it was strengthened several years ago, with the help of the Rockefeller Foundation and British grants, for this purpose. In 1964, the decision was made, however, to enrich the course of study and to lengthen it to five years, the same as at Makerere. Admission requirements will be somewhat lower than at Makerere, however, but the Government of Tanganyika is expected to license the graduates as medical doctors for practice in the country. The first ten students in this program were enrolled in 1964, and an additional ten are expected in 1965. The Center hopes to increase the input to as many as 30 to 40 a year. This capability, in part, will depend upon appointment of additional staff.

Dar es Salaam Technical College: This institution was established in 1957, enrolling students after Form 4, and offering a variety of full-time and part-time programs of study in commercial, engineering and vocational fields, some leading to a diploma. Enrollments in 1962 amounted to 682 in commercial courses and 91 in full-time engineering courses. It is hoped to increase enrollments by 1966 to over one thousand in commercial courses, 392 in engineering, and 528 in full-time vocational courses. The Five Year Development Plan includes only passing reference to the Technical College and includes provisions for expansion of facilities. It also proposes, without further explanation, the establishment of a second technical institution.

At the present time, however, the Technical College in Dar es Salaam is searching overseas for a new principal and has other problems to solve before it becomes firmly established.

A Reuters despatch from Dar es Salaam dated August 30, 1964 reported that the Soviet Union, among other things, had agreed in principle to furnish the United Republic of Tanganyika and Zanzibar a one thousand student technical school. No details of this offer were given. The experience of Tanganyika with trade schools and with the Dar es Salaam Technical College would suggest that it will be some time before an additional technical school becomes a viable operation.

The manpower adviser, Robert Thomas, reports that the situation with respect to technical training has improved. Contrary to the common lack of interest of school certificate graduates, a total of 106 in December 1963 chose to enroll in the three year full-time courses in engineering at the Dar es Salaam Technical College. Only 55 had entered the previous year. He anticipates that between 120 and 150 will enter in December 1964, and concludes that if enrollments continue at this level, Tanganyika will be assured an adequate supply in this occupational category by the end of the Five Year Plan.

Morogoro Agricultural College: Candidates for a university degree in agriculture since 1961 have been prepared by the faculty of agriculture at Makerere College, although only nine

Tanganyikans were enrolled in 1964. The Government of Tanganyika also has developed a diploma level agricultural college at Morogoro with the help of the USAID and a grant from the Rockefeller Foundation; completion of construction of the college is expected by 1965. Final enrollment of 150 diploma candidates is planned.

In-Service Training: The Government of Tanganyika also has planned measures to upgrade the capabilities of manpower already on the job. The following undertakings are worthy of note.

Civil Service Training Center. This government facility for in-service training was established in attractive quarters in Dar with the help of the Ford Foundation. During 1963 it offered a total of 47 different courses, enrolling a total of 751. The principal programs of the Center cover office management and procedures, accounting and clerical work, a training program for officers who are posted as instructors in ministerial training centers, or as training officers.

Institute of Public Administration: The IPA is affiliated with University College, and since its establishment in 1962 has held courses for 25 district magistrates, 30 area secretaries.

and 10 senior administrative officers. It is developing new teaching materials, and arranges seminars and other opportunities for collaboration between government and the academic community.

Administrative Staff College. The Civil Service Training Center enrolls junior level personnel, and the Institute of Public Administration draws from the middle levels. In an attempt to provide in-service training for senior level personnel, the governments of the three East African countries have initiated plans for an administrative staff college, which will operate a course of several months duration repeating the program in each of the three capitals. Guy Hunter was in East Africa in July 1964 and it was then expected that the first course would be scheduled for November. But there appeared to be some doubt that the government could release a sufficient number of officers to make the undertaking worthwhile.

Other government programs. The ministries of agriculture, health, cooperative and community development, and communications, power and works also operate in-service training programs. The Medical Training Center, for example, has offered a special course to upgrade medical assistants.

Other in-service programs. A substantial number of employed

individuals have undertaken a wide variety of courses on their own initiative. During its first nine months as a part of University College, the Extramural department offered 28 courses the first semester with 600 enrolled, and 41 the second, with over 700 enrolled. An additional 1100 employed individuals attended evening classes at the Dar es Salaam Technical College. About half of the courses were in commercial subjects, with the remainder in a variety of fields including City and Guild courses and academic courses for G.C.E.

The amount of informal training that goes on in industry is not recorded, although Robert Thomas, the manpower adviser, concludes that it is extensive. The Ministry of Labor during 1963 trained 36 training teachers who in turn conducted 70 different group courses in which 697 foremen or other supervisory personnel in both private firms and government were instructed in improved training methods.

The East Africa Common Services Organization, of which Tanganyika is a member, and its subsidiary organizations, also operate a variety of training programs for their personnel.

Allocating Secondary School Output

This summary account of the programs of the University of East Africa, of the various technical and vocational institutions

and of opportunities for in-service training suggest that Tanganyika has initiated bold moves to prepare accelerated outputs of high and middle level manpower. But because the number of secondary school graduates has been low (and the majority of these have been inadequately prepared in mathematics and science), because the time span in the Educational pipeline is long, and because these educational institutions themselves require time to become fully productive, the domestic supply of high level manpower will fall short of demand for some time to come. This situation points to the need to maximize the opportunities for formal education and training by matching as closely as possible these opportunities with identified manpower requirements.

Fortunately the government of Tanganyika has established effective devices for the accomplishment of this purpose. The responsibilities of the Manpower Planning Unit in the Directorate of Development Planning were described above. It will be recalled that this Unit works closely with the Ministry of Education and the various educational institutions, keeping them informed of the nation's manpower needs.

Because the needs are so great and the supply of higher school certificate students so limited, it is agreed that this supply be utilized fully in those occupations in which Tanganyika is so short, and for which the University of East Africa

has existing faculties. Then occupations have been identified as follows:

Engineers
Civil
Mechanical
Electrical

Agricultural Scientists, including Veterinarians
Physicians
Graduate Secondary School Teachers
(60 percent Science, 40 percent Arts)

The Directorate of Development Planning and the Ministry of Education are in agreement that action should be taken to assure that the supply of H.S.C. (Science) graduates is fully utilized. To this end an apportionment has been made, based upon data supplied by the Manpower Unit, among the four broad occupational categories for which the University of East Africa has faculties. This was as follows: Engineers, 24 percent; Physicians, 24 percent; Agricultural Scientists, 28 percent, and Graduate Secondary School teachers, science, 24 percent. Based on this apportionment, the Ministry of Education provided a directive to guide actions of the University's Board of Admission. This directive provides that Tanganyika will support bursaries only in accordance with this apportionment.

Following the same procedure, the government also directed 50 percent of the students entering the arts faculty of University College, Dar es Salaam, in 1964 to enroll in the teacher

preparation program. It should be noted that the practice of providing government bursaries to all Tanganyikans entering the University of East Africa makes this procedure possible.

All scholarship holders are now required to be bonded, obligating themselves to serve for a period of five years in the public service upon completion of their studies, unless released by the government for other employment. It is not the intention of the government to restrict Tanganyikan graduates to public service careers. It should be noted that the private sector is represented on the Standing Advisory Committee and through this device it is hoped to achieve closer cooperation in manpower planning and utilization.

Beyond this, the government also has instituted a system of informal "rationing" of secondary school leavers among its various agencies. This allocation provides that every student who appears to be University material is enabled to continue in form 4. The second priority is for teacher training. The remainder are allocated among various public bodies or for further vocational training. The wishes of the student are taken into account in making the assignments. As yet no compulsory direction has been employed and the system appears to be working by voluntary agreement among the various government bodies. While the government would welcome participation in this scheme by private employers, this has not yet been worked out.

OVERSEAS STUDY

Overseas study occupies a very significant role in the manpower situation in Tanganyika, and the government places considerable emphasis upon the rational utilization of the opportunities that are provided overseas as well as in East Africa.

Administration of Overseas Scholarships

Perhaps more than any other African country, Tanganyika has established effective procedures for the administration of overseas study. The operations of the Manpower Planning Unit and the Ministry of Education with respect to the allocation of Secondary School leavers were described above. This system also applies to overseas study. The administering agency for both East Africa and overseas is the office of the registrar of students, in the Ministry of Education. This office handles bursary and scholarship awards, and has records on all Tanganyikans engaged in post-Secondary education. Each year it publishes a report listing post-secondary students studying outside of the country and at the University College, Dar es Salaam. The latest report, for the academic year 1963 - 1964, will be published in December, 1964.

This list identifies each individual by name, race, whether private or sponsored and if latter, identification of sponsor, subjects and qualifications taken, name and location of institution, country, year in which course started, and year of expected return.

At the present time this information is being punched onto machine cards, so that in a few months the authorities will be able to break down the data into different combinations and categories for purposes of analysis. Thus the government should be able to administer even more effectively the allocation of bursaries and scholarships and the utilization of individuals following graduations.

About March 1964 the Registrar of Students, with the assistance of the training officer USAID/Dar, prepared a tabulation of students abroad for the current year, by country, field of study, and expected date of return.

Tanganyika has received offers of overseas scholarships from many sources and has established regular procedures for handling them. According to official explanations, all offers must be approved at the political level by a Cabinet Committee on Higher Education and Training, chaired by the Minister of Education. Once cleared, they are administered by the Registrar of Students, who advertises for applicants. Qualified candidates are screened by a Scholarship Selection Board, on which have sat representatives of four ministries, the Central Establishment Division, University College, and four representatives of the public. The Registrar of Students serves as the secretary. Recently a subcommittee of this board, composed of three outside people, has been established and apparently this move has been

welcomed by the ministerial members of the board as a device to remove them from political pressures in the assignment of awards. Final selections of students for the ASPAU and IIE programs are made from lists approved initially by the Scholarship Board.

In the case of ASPAU, students who fail selection for sixth form may apply. Some students gamble on selection for ASPAU rather than to go for sixth form.

It should be noted that the government itself provides scholarships for overseas study. Scholarships also are provided by various voluntary agencies, corporations, and so forth within the country.

There is some evidence that the government of Tanganyika intends to give closer attention to the selection and assignment of students overseas, in terms of manpower needs. It also hopes to tighten up the machinery for matching returning students with employment opportunities. Missions were sent to the United States in 1963 and 1964 for this purpose. Apparently these undertakings were planned hastily and the team members, as well as students in America, were inadequately prepared for the operation. Even so the individuals who served on the missions concluded that the procedure was worthwhile and they recommended improvements to make subsequent ventures more effective.

At the present time, it is the declared policy of the government that overseas scholarships should be awarded only in those

fields in which there is no opportunity for study in East Africa, at both the graduate and undergraduate levels.

The first group of Tanganyikans returning from overseas was expected in August. Here again measures for their reception were rather hastily prepared, but plans were taking shape in the Central Establishment Division to handle this situation in 1965 on a systematic basis.

Overseas Study: Quantitative Aspects

The calculations of Tanganyikan students abroad and in the University of East Africa prepared by the Registrar of Students early in 1964 listed a total of 2054. Of these 1388 were African citizens of the country, 43 were non-African citizens (presumably Asians who have acquired citizenship) and 523 were non-citizens (again presumably Asians).

Excluding the 35 students in Tanganyika, 105 in Kenya and 202 in Uganda, there were a total of 1712 abroad.

Levels of study and the years of expected return of all students, including those in East Africa, are shown in the following table:

	<u>Post-graduate</u>	<u>First degree</u>	<u>non-dgre.</u>
1964	33	288	303
1965	15	295	204
1966	4	280	97
1967	4	139	120
1968	-	100	69
1969	-	21	25
1970	-	14	2
1971	-	2	-
Unknown		2	36
	<hr/> 56	<hr/> 1141	<hr/> 856

This calculation also shows expected years of return by fields of study. It does not show expected years of return by country, but this information could be compiled from the annual list of students mentioned above and presumably can be made available readily when the punch card operation has been set up.

The number of students in each field of study in 1964 including those in Kenya and Uganda in 1964 was as follows.

Accountancy	49
Administration, public and general	17
Architecture	20
Agriculture	121
Arts degrees	190
Art, commercial and fine	8
Chemistry	19
Commercial and business administration	56
Cooperatives	26
Dentistry	10
Domestic Science	29
Economics	156
Education	135
Engineering	356
Forestry	17
Geology	15
Journalism	6
Law	74
Medicine	189
Medical Sciences	27
Mining	14
Nursing	185
Pharmacy	33
Religious Studies	34
Science degrees	93
Social Studies	38
Surveying	16
Trade Unionism	20
Trades	17
Veterinary science	30
Miscellaneous	29
	<hr/>
	2054

The numbers of students in each country abroad is shown in the following table:

Algeria	9	
Australia	38	
Austria	9	
Belgium	1	
Bulgaria	3	
Canada	3	
China	-	
Congo	5	
Cuba	-	
Czechoslovakia	15	
Denmark	9	
Eire	33	
Ethopia	8	
France	3	
Finland	1	
East Germany	18	
West Germany	91	
Ghana	3	
Guinea	1	
Hong Kong	-	
Hungary	1	
India	41	
Israel	6	
Italy	17	
Japan	-	
Jordan	1	
Liberia	-	
Netherlands	44	
New Zealand	24	
Nigeria	11	
Norway	3	
Pakistan	15	
Phillipines	1	
Poland	12	
Romania	1	
Sierra Leone	1	
Sudan	-	
Switzerland	8	
Sweden	9	
United Kingdom	771	
United States	281	
U.S.S.R.	150	
United Arab Republic	14	
Yugoslavia	36	
	<hr/>	1712
East Africa		
Tanganyika	35	
Kenya	105	342
Uganda	202	<hr/> 2054

These figures do not make separate recognition of the substantial number of individuals who are given opportunity for study overseas under such arrangements as the USAID "participants" program and equivalent programs offered by the United Kingdom and other countries. It is presumed where these individuals are enrolled in degree or diploma courses they are included in the figures for students overseas. Where they are already in government service, assigned for overseas study, they do not constitute a net addition to the new manpower supply, but rather reflect an upgrading of the present stock.

THE MANPOWER BALANCE SHEET

What conclusions appear from this summary account of manpower demand and supply?

It will be recalled that Tobias, prior to the Five Year Development Plan, estimated a requirement of 8,000 in high level occupations over the period 1962-1967. Against this demand, he identified a trained supply of 2,267 individuals who were in the pipeline earmarked for specific employment. These individuals were concentrated in nursing, teaching and agricultural technician, skills for which the Government had established special training institutions. Certain of these positions of an unspecified number probably would not fall within the high level definition employed in the present study. But regardless of this, the Tobias estimates suggest a shortfall of over 5,600 in the five year period. Against this can be assigned a substantial number of individuals in stream who are not earmarked for specific employment. This group would constitute a substantial portion of university graduates. But even so, the shortfall remains of very large relative proportions.

Turning exclusively to professional and administrative personnel, Tobias estimated a five year (1962-67) requirement of 2,500 additional personnel. In terms of the government establishment alone, and after preparation of the Five Year Plan,

Thomas reported a requirement of 1100 to fill existing vacancies, replace expatriate withdrawals and fill new additional posts, excluding secondary school teaching positions, which would add an additional 500 for expansion and 850 for replacement of expatriots. Thus Government posts plus teaching add up to 3,350 for the years 1964-1969.

Against this demand is shown an output from the University of East Africa and overseas study of 1,937 in the next five years. To this can be added the relatively small output available in several more years to such institutions as the Dar es Salaam Technical College, the Morogoro Agricultural College, and the Medical Training Center. These institutions will not begin to produce any significant numbers of graduates for three or four more years. In the aggregate, they will add another 800 or so individuals by 1969. These two sources together will produce a total of about 2700 individuals by 1969.

The graduates of the University of East Africa, of overseas technical and vocational institutions, and of institutions overseas will be without experience. At least several years on the job will be required before they can assume significant responsibilities. But even discounting this factor, it will be seen that there is a substantial shortfall between the 3,350 requirement for government service including teaching and a visible

supply of 2700 in the next five years. If this supply is projected against the larger requirement estimated by Tobias, covering middle level positions and also the private sector, it will be seen that the shortfall is even greater.

Interview List

Tanganyika

President's Office, Directorate for Development Planning

Manpower Planning Unit

Robert Thomas, Manpower Planning Adviser

Office of Second Vice President, Central Establishment Division

Localization and Establishment Section

M. J. Mwanenza, Chief Establishment Officer

Central Recruitment Section

O. M. Katikaza, Senior Establishment Officer

Central Training Section

G. B. Gordon, Principal, Civil Service Training Center

Central Establishment

David Anderson, Adviser, formerly stationed
in Central Establishment, saw while on temporary
assignment from post in Nairobi.

Ministry of Education, Education Division

J. A. Sawe, Chief Education Officer

J. H. Mzaba, Assistant Chief Education Officer

(administration and general)

A. C. Mwingira, Senior Education Officer, Planning

E. K. Mwamafupa, Acting Assistant Chief Education Officer, Planning

D. S. Mdachi, Registrar, Student Affairs,

Miss Lucinde, Office of Registrar

Simon Pratt, Planning (UNESCO)

University College, Dar es Salaam

R. Cranford Pratt, Principal (until March)

Dr. W. K. Chagula, M.D., Registrar (Principal Elect)

Professor Reginald Honeybone, Dean, Faculty of Education

Professor A. B. Weston, Dean, Faculty of Law

Mr. W. L. Twining, Professor of Law

Tanganyikan Interview List
(cont'd.)

Institute of Public Administration

Professor D. Kimble, Director
Hadley E. Smith
Claude C. Woltz

USAID

Allan Loren, Director
David Shear, Assistant Program Operations Officer

USIS

Bernard F. Coleman, Cultural Affairs Officer
Eugene Rosenfeld, Public Affairs Officer

US Embassy

Ambassador William Leonhart
Chris C. Pappas, Political Officer

British Government

High Commission
Roger Scrage
British Council
Merlin Jones

Medical Training Center, Muhimbili Hospital
Dr. Rankin, Director

African-American Institute

William Gaines

UNESCO

Dr. C. M. O. Mate, Regional Director

Peace Corps

Martin N. Chamberlain, Director

Tanganyikan Interview List
(cont'd.)

Kent State Project (Teacher Training)

Roger Shaw, Chief of Party

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TF: September 15, 1964

EWA/AID:VI

DRAFT

Education and World Affairs

Study of Manpower Needs and Educational Capabilities

Introduction

UGANDA

This is a preliminary draft report of an initial survey of Uganda undertaken during the summer of 1964 in partial fulfillment of USAID Contract AID/afr-198, dated June 2, 1964. It is based upon observations made in Kampala and Entebbe from July 19 to 31 and upon an analysis of such documentary material as is available.

The report attempts to accomplish two purposes. In the first place, it is in the nature of a reconnaissance, suggesting "the state of knowledge" with respect to the equation of high level manpower demand and supply. Secondly, it summarizes such data as is available.

Manpower planning does not exist in Uganda, although there is some evidence that arrangements will be made to move forward with both development planning in general and manpower planning in particular. Educational planning on the other hand, is well advanced, although it is subject to constant change and thus to uncertainty. Educational planning, moreover, under the circumstances, cannot be advanced in terms of precise manpower

needs, because these have not yet been identified.

Thus at best this is a preliminary and very tentative report. It is hoped that in the coming months both manpower and educational planning will advance sufficiently so that the final Education and World Affairs report can be based upon more adequate data.

Character of the Study

In Harbison and Myers' typology, Uganda is a Level I country similar to Kenya and Tanganyika. It lies on the equator and is an inland country with Kampala, its capital, 874 miles from the coast by rail to Mombasa in Kenya. It measures 91,134 square miles, comparable to the area of the United Kingdom. About 16,400 square miles are open water and swamps.

Because Uganda is predominately a plateau at about 4,000 feet above sea level, it has a generally pleasant climate. The temperature over most of the country varies between a mean minimum of 60° F and a mean maximum of 85° F.

Sufficient rainfall allows for a extensive agricultural economy with much of the country receiving 40 - 50 inches on an average.

The population census of 1959 found a total of 6.5 million people and the 1962 estimation was 7,016,000, based on a 2½ percent per year increase for African calculated from the intercensal

rate of growth. A breakdown of population for 1962 is as follows:

European	11,200
Indo-Pakistani and Goan	79,900
Arab	2,200
Other	2,600
Africans	6,920,000
<hr/>	
Total	7,015,900

The population density is approximately 86 persons per square mile with wide variations between provinces and districts.

The majority of Ugandans live within the context of a traditional society at a subsistence agricultural level.

"Uganda remains an agricultural country: two-thirds of gross domestic product is derived from farming and over 90 per cent of all exports are produced from the land." (World Bank, p. 15)

The declining coffee and cotton prices during the period 1958-1963 resulted in the economy marking time; for cotton and coffee account for almost 80 per cent of Uganda's export earnings. In 1963 with cotton production back to its normal level and a bumper coffee crop with high price for Rubusta, resulted in marked increases in export earnings.

The government of Uganda is presently making plans for its next three five-year development plans (1966-1981) in the hope that the economy can be stimulated to double per capita output

during this period. This will require development efforts of a much greater magnitude than in any previous period. In order to accomplish this objective the skills of the labor force must be greatly increased besides obtaining the necessary capital. Education of all sorts will play a vital part and must be given careful study.

I. Manpower Planning

Uganda has yet to undertake any comprehensive manpower survey since that of Robert L. Thomas in 1959. Probably one of the reasons for this is that the Thomas study and the observations made by the economic survey mission organized by the International Bank for Reconstruction and Development in 1960 confirmed that Uganda could absorb all trained manpower under an expanded educational system beyond primary education until 1970. Even as late as the spring of 1964 a working party studying various questions concerned with the University of East Africa entrance levels and degree structure came to the conclusion that East Africa could absorb all graduates likely to be produced in the next ten years. Our survey endeavors were unable to collect further comprehensive data and the consensus of persons contacted was similar, namely Uganda could absorb all secondary and university graduates produced during the next several years.

On the other hand many individuals interviewed spoke of the value and need for a comprehensive manpower survey which would reinforce and verify their own judgements and planning.

It was reported that steps are being taken to get a manpower survey underway as well as the next five year development plans (1966-1971). More detailed information should be available during the fall of 1964. One of the key persons, James Illett, (United Nations Expert) who will probably work on the manpower survey, was on home leave during our visit. He is on the staff of the Central Planning Bureau, Ministry of Planning and Community Development under J. Kakonge, Director of the Uganda Planning Commission. Besides Illett there are four additional Ugandan economists in the Central Planning Bureau, two of whom should be returning during the fall of 1964 from training programs outside Uganda. It is also likely that additional outside experts will be brought to assist in future economic development plans.

It should also be noted that the East African Institute of Social Research, Makerere University College, Kampala, Uganda is also undertaking research in development problems of the East African countries and is consulting with appropriate government officials (note description in appendix).

D.G.R. Belshaw, Lecturer in Agricultural Economics, Makerere University College conducted a survey on the demand of agriculture

and agricultural science graduates in East Africa during 1963. Based on only a plus 30 per cent return there is a need for between 800 and 900 first degree and post graduate trained agriculturalists over the next several years and between 490-560 such posts during the period 1963-66. Approximately 75 per cent of these vacancies cannot be filled by local graduates.

Also a draft report of January 1964 on Medical Manpower in East Africa indicated that even with expanding medical training both locally and abroad it is not likely that East Africa will obtain a doctor ratio of 1:10,000 by 1980.

In a recent paper by P. Clark and B. Van Arkadie titled Development Goals for the Uganda Economy in 1981, several questions and issues are raised which point out the need for sounder and more detailed manpower and educational planning. They state that,

"...on the one hand the question must be raised whether there is enough manpower available to produce the desired outputs. In Uganda there is not likely to be any shortage of unskilled manpower, but there will be a continuing problem of ensuring an adequate supply of the right quantities and types of skill, particularly for people with secondary and higher education. This question is largely the province of detailed manpower and educational planning, starting from a finer analysis of the industrial composition of future development on the way toward 1981 goals.

On the other hand, the question can be reversed and posed in the form, 'Is the planned growth providing enough job opportunities to satisfy popular aspirations?' This question is likely to be particularly pressing for people with primary education or less. Here we can say something meaningful even in aggregative terms.

Non-agricultural employment has declined in Uganda since 1958, with the net result that in the decade ending in 1962 non-agricultural employment grew by less than 5 percent. The reason for this discouraging performance was partly the slow growth in output and partly the rise in productivity per worker. As productivity rises the same output can be produced with fewer workers. The data available are not good enough at present to be very precise in analyzing changes in productivity. It seems that output per worker in non-agricultural activity has risen at between 4 percent and 6 percent per year during the period 1954-62; the reported figures tell a somewhat different story according to the time period studied. If this trend in productivity continues in the future, then it would take a 5 percent annual increase in output of the non-agricultural sector just to maintain employment at the existing level.

The employment problem is compounded by population growth. For the past decade the proportion of the total population employed in wage-paying jobs in Uganda has been declining. In the future it may be expected that the number of people aspiring to paid employment will grow faster than the total population, partly as a result of the expansion of primary education. Moreover the economy currently provides many fewer jobs than would be desirable, in view of the number of unemployed and semi-employed. Therefore, for the future, ensuring a high rate of expansion of employment opportunities may be quite as urgent a goal as expanding output per capita.

The desire to increase employment opportunities faster than population is another justification of the high-growth objective. If past trends persist, a rate of growth of non-agricultural output of less than 7.5 percent per year would most likely only keep job opportunities in line with the growth of population. On the other hand, achievement of the 1981 goals would imply an increase of non-agricultural output of 9.5 percent per annum, which should enable employment to grow significantly faster than population, as explained below.

The employment effect depends not only on the overall growth of output and the rate of growth of productivity within each industry, but also on the shift in the composition of non-agricultural output between industries.

If there is a shift in output towards industries which use relatively more labor, average productivity in the non-agricultural sector will rise more slowly and the employment resulting will rise more rapidly. The major shift of the character which occurs in the projected pattern of output expansion is the marked growth in the share of construction. In 1962 construction accounted for only 7 percent of total non-agricultural output but provided 17 percent of total non-agricultural employment. Allowing for the major shift toward the construction industry and using the assumption that the rise in productivity in all industries will average 5 percent per annum, the projected growth of non-agricultural activities would be such as to employ a work force 2.9 times that of 1962 by 1981. This represents a rate of growth of 5.7 percent per annum, which is over twice the projected rate of growth of population. Thus achievement of the high-growth objectives for 1981 might bring about a significant improvement in the employment situation, something which has not been achieved in recent years." (2:10-11)

Hunter and Harbison made the following broad estimates

of high-level manpower needs for period 1961-66:

<u>Uganda</u>	<u>Stock</u>	<u>Wastage</u> 1961 - 66	<u>Growth</u>		<u>Requirement</u>	
			a) 2% p.a.	b) 3% p.a.	(a)	(b)
Cat. I	4,150	1,660	830	1,250	2,430	2,850
Cat. II	10,600	3,000	3,180	4,800	6,180	7,800
TOTAL					8,610	10,650

and further projections of Requirements 1966-71 are:

<u>Uganda</u>	<u>(a) 2% p.a. growth</u>	<u>(b) 4½% p.a. growth</u>
Cat. I	2,000	3,500
Cat. II	6,900	13,500

The above estimates point out the need for a comprehensive manpower study because they do not indicate the demand by sector in order to obtain more exact targets for engineers, teachers, doctors, agriculture specialists, and so forth.

Also Jolly and Rado have made some thoughtful comments in their review of the Uganda Education Commission Report, especially in regard to the bottlenecks at the secondary school level:

"The number of those who gain a good School Certificate, as a proportion of the entry four years earlier, varies from 6 percent in some schools to over 80 percent in others. It would seem therefore, that specific analysis of the quality of education provided by some schools is not only necessary: it is vital." (p. 3)

This is supported by E. J. Sheffield's recent statistical report done for the aforementioned University of East Africa study of entrance levels and degree requirements, which shows that 45 percent of Ugandan School Certificate candidates may be expected to pass in Division I and II on the basis of previous years.

It should be pointed out also that Uganda's Form IV entrants in 1964 of approximately 1,900 set the number who will receive School Certificates in 1968, be qualified to enter university in 1970, and graduate in 1973. Not much can be done to expand the educational output for high-level manpower during the next several years, except in ways of improving the quality of education through raising the percentage that will pass at School Certificate level. Educational plans therefore need to be made for a twenty-year period.

Jolly and Rado estimate that "two hundred and fifty Ugandans will graduate from Makerere with perhaps as many again from abroad. The six-year total (1964-69) will not exceed 1,400." The following three years can be expected to produce another 1,000 -- a total of about 2,500 up to 1972. Even Hunter's and Harbison's low estimate of the need for 4,430 Category I high-level manpower will not be met. Jolly and Rado made the point

"that if no more than present levels of educational performance are continued, the output of the Uganda educational system is unlikely to come anywhere near meeting even replacement needs for the next six years and more, and that it will not meet even modest assumptions about the growth needs of the economy for perhaps another twenty." (8)

Present educational planning which is increasing intake at the rate of 15 percent per year will mean doubling of enrollments over the next six years and if this is continued it is likely that Uganda can meet its manpower needs. However, this will only be possible if external capital aid is forthcoming, also recruitment of several hundred expatriate secondary school teachers (especially in science and mathematics) over the next several years plus assistance in developing various programs in teacher training.

There are many other problems facing educational planners in Uganda. Very little attention is given to adult education and on-the-job training which are necessary if present labor force is to be upgraded and contribute to economic growth.

UGANDA

II. Educational Capabilities: Present and Projected

Recent Developments.

Since January 1963 significant educational developments have taken place. In January 1963 the Minister of Education appointed a Commission to report on Education in Uganda, with these terms of reference:

"To examine in the light of the approved recommendations of the International Bank Survey Mission Report and Uganda's financial position and future manpower requirements the content and structure of Education in Uganda, to consider how it may best be improved and adopted to the needs of this country and submit recommendations accordingly."

The Commission was unable to examine "the content and structure of education in Uganda" in light of "future manpower requirements" because of the lack of data. In its report the Commission stated that it understood that a manpower survey had been undertaken by the Ministry of Economic Development and was to be completed by June 1963. As of September 1964 no such survey had been undertaken.

The Report on the Uganda Education Commission, 1963, known as the "Castle Report", was submitted to the Ministry of Education on June 12, 1963.

Late in 1963 the Uganda Parliament endorsed Sessional Paper No. 4 of 1963: Memorandum by the Government on the Report of the Uganda Education Commission, 1963, generally accepting the recom-

mendations in the Report with a few exceptions. This was followed by an Education Development Plan - Uganda 1964-70 (as revised by the Uganda Commission on February 17, 1964). This development plan is a complementary working document to the Castle Report and Sessional Paper No. 4 of 1963 elaborating on the financial implications of these plans. During July, August and September of 1964 the Ministry of Education is undertaking a comprehensive revision of these plans in order to develop a proposal for external assistance primarily of a loan nature in order to carry out its educational plans.

It will be very important to obtain the new plans and proposals for this report.

Enrollments and Projections

Based on information available from the above reports, about half the boys and a third of the girls of primary school age were in school in 1963, and of those who enter Primary 1, a little more than 3 percent reach some form of secondary school.

An example of the present educational system is *

Primary	Years 1-6
Junior Secondary	Years 7-8

Note: In 1963, of 57,000 children in P.6 classes, about 20,000 (or 40 percent) moved on to Junior Secondary 1; and of the 16,000 children in Junior Secondary 2, nearly 6,000 children moved on to secondary level education: -

High Schools	Years 9-12 (4,200)
Secondary Schools	Years 9-10, 11 and 12 (600)
Primary teacher training colleges	Year 9-12 (900)
Technical Schools	Years 9-12 (320)
Farm Schools	Years 9-12 (160)

"Note: The bracketed figures show the approximate allocation of the 6,000 children by types of school." (15: 4-5)

One of the most far reaching decisions has been that of shortening primary education from present eight years to seven and abolishing the Junior Secondary Schools. This shortening by a year of schooling and the possibility of freeing teachers and buildings for other educational tasks needs to be examined carefully.

The principal objectives of the Education Development Plan - Uganda 1964 -70 are:

- "(i) to provide school places for all children in the primary age group (ages 6 to 12) by the end of the decade. (1970)
- (ii) to insure that all children who enter Primary 1 are assured of a place in Primary 7 by 1967 (automatic promotion throughout the primary school system);
- (iii) to re-organize the entire system for training non-graduate teachers;
- (iv) to provide places for about 5% of the children of secondary school age by 1970." (15:8)

"The plan in terms of school/college enrollments by years over the planning period is summarised in the following table" (p. 8)

Table 7

	1963	1964	1965	1966	1967	1968	1969	1970
P.1-8 ('000) *	505	569	736	871	1021	1156	1292	1430
S.1-4 ('000)	9.5	12.5	14.5	16.7	18.9	20.5	22.0	24.6
S.5-6, ('000)	0.65	1.0	1.40	1.56	1.88	2.20	2.52	2.72
P.T.T.C. ('000)	3.41	3.6	3.5	3.38	3.3	3.25	3.1	3.0
J.T.T.C.	390	430	530	630	690	750	810	870
S.T.T.C.	14	44	70	90	110	130	170	200
Technical	1084	900	1040	1315	1440	1530	1530	1530
Farm	310	370	590	900	1350	1740	2040	2040
Secondary-Modern	842	700	700	1750	2970	4380	5250	5250
U.T.C.	483	443	536	624	740	800	800	800
Commercial School	81	120	180	200	190	190	190	190

* P.1-7 from 1967

The Ministry of Education is certainly embarking on a most ambitious educational development plan with highest priority to Secondary Education, the present bottleneck to the development of High level and Intermediate level manpower. It is anticipated that the number of secondary school places will be increased from 15,000 in 1963 to 38,000 in 1970.

Two major obstacles to such an objective are: the need for a large number of expatriate teachers as indicated by the following from the plan:

High School Teachers and Sources

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
TEA	20	80	100	100	100	100	100	100
Other expats.	180	230	345	415	472	508	508	486
Asian	150	150	145	140	135	130	125	110
Uganda Graduates	30	40	50	60	70	80	90	100
Non-Grads	<u>50</u>	<u>85</u>	<u>105</u>	<u>135</u>	<u>165</u>	<u>200</u>	<u>250</u>	<u>300</u>
	<u>430</u>	<u>585</u>	<u>745</u>	<u>850</u>	<u>942</u>	<u>1018</u>	<u>1073</u>	<u>1096</u>

and necessary capital and recurrent funds as follows:

Level	Estimated Uganda Overall Recurrent Expenditure			Capital
	<u>1964</u> £ Million	<u>1970</u> £ Million	<u>Increase</u> £ Million	
Primary	3.66	5.77	2.11 *	£463,000 Karamoja
Secondary	1.07	2.56	1.49	£1,743,000 High Schools Committed £6,540,000 High Schools £2,000,000 Secondary
Technical	0.50	0.94	0.44	£164,000 UTC/Com. Col. £415,000 Technical S. £1,000,000 Farm S.
Teacher Training	0.51	0.51	-	£1,840,000 PTTC. S.
Higher Education	1.16	2.20	1.04**	
TOTALS	<u>6.90</u>	<u>11.98</u>	<u>5.08</u>	<u>£14,365,000</u>

* Burden falling on Central Government depends on grant formula.

**Estimated increment of approximately 15% per annum.

What changes will be made in Uganda's educational plans will have to await the present revision taking place which is scheduled to be completed sometime in September or October 1964.

Issues and Questions.

1. Insufficient attention seems to be given to the unevenness of the quality of education provided in the secondary schools. There is a wide disparity of the percentage of students obtaining the School Certificate from one school to another.
2. It is also claimed that there is a substantial unevenness in terms of student cost from one school to another.
3. How is quality to be maintained when under present conditions the teaching of science and mathematics is poor?
4. There does not seem to be sufficient attention given to the future problems of primary and secondary school leavers which will be multiplying in geometric proportions over the next ten to twenty years if present educational development plans are anywhere near realized.
5. There seems to be a trend in Uganda of establishing secondary schools having combined general education and vocational programs. The U. S. Comprehensive High School plan may offer further guidelines similar to the development of the Comprehensive High School for Girls being established at Tororo. One can foresee numerous problems in this area and it would seem worthwhile to give much more careful study to this problem.

Additional Comments and Observations

At this stage there is limited opportunity after "school certificate." Only slightly more than a thousand students will move on to further education in 1964. (600 to Fifth Form, 120 to the Uganda Technical College, 120 to the School of Commerce and 170 to the Junior Secondary Teacher Training College at Kyamboga). Other School Certificate candidates will join various training programs of the civil service, some will pursue non-degree courses at the University of East Africa and the certificate and diploma courses of the two agricultural colleges at Bukalasa and Arapai.

Follow-up activities in the fall of 1964 should provide more data in regard to manpower planning, educational planning especially at the secondary, post-secondary, and teacher training levels in order to be able to complete the terms of reference of this study properly. At this time the necessary information is not entirely available.

III. Overseas Study

Study abroad remains a very significant source of high level manpower for Uganda. In August, 1962, a Central Scholarships Committee was established for an initial period of two years. The membership of the committee is as follows:

1. Dr. M.J. Alier, B. Ph., D.D.S., L.D.S., R.C.S.,
Chairman
2. Mr. Erisa Kironda, M.A. (Cantab)
3. Mr. D.G. Ghai, B.A.B. Phil. (Oxford, M.A. Yale)
4. The Hon. P. Sesumaza, M.M.A.
5. Mr. Abas Balinda
6. Mr. O.L. Lalobo
7. Miss N. Kapimbula
8. Miss F. Masaba
9. The Hon. Aloysius Balinda, M.N.A.

Secretary and Executive Officer:

The Higher Education Officer, Ministry of Education
P.O. Box 263, Kampala

The terms of reference of the Committee are:

"To control, award and administer, all overseas scholarships, bursaries, and associated expenditures, financed from public funds voted for the purpose of the Ministry of Education, and to co-ordinate action on all other overseas awards whether financed from public funds or otherwise; having regard to the following-

- a. The manpower needs of the civil service and teaching service are paramount.
- b. Awards will normally be for post-Higher School Certificate level courses at universities or equivalent institutions; or for specific sub-professional training.
- c. Awards will not be made in respect of courses or training available within East Africa except when it is essential to supplement the total number of East African places available to Uganda students.
- d. Selection will be completely free from bias of any sort, and will depend on merit and academic suitability. Subject to these overriding requirements, awards should be spread as equitably as possible taking into account the overall requirements of the country."

Our observations indicate that the work of this committee is quite thorough and a substantial degree of coordination takes place relative to overseas scholarship awards afforded both by the Uganda Government and other countries.

Improvement could be made in terms of recording overseas scholarships as to type of programs, where students are studying, how they are progressing, information on returnees, and so forth.

According to the Ministry of Education approximately 1800 Ugandans are studying abroad as of August, 1964. A breakdown by country in race and sex and type of training is as follows:

<u>COUNTRY OF STUDY</u>	
<u>Country</u>	<u>Students</u>
U.K.	1312
Europe other than U.K.	144
U.S. A.	136
India	126
Canada	11
Australia	41
U.S.S.R.	16
New-Zealand	20
U.A.R.	11
Sudan	19
Ghana	9
Pakistan	<u>12</u>
TOTAL	1757

RACE & SEX

<u>Male</u>	
Africans	895
Non-Africans	391
<u>Female</u>	
Africans	420
Non-Africans	<u>66</u>
TOTAL	1772

TYPE OF TRAINING

Post-Graduate	57
Degree	552
Diploma	<u>684</u>
TOTAL	1293

COURSES

Academic Arts	Geology
Academic Science	Hotelier and Catering
Accountancy	Insurance
Public Administration	Journalism
Bus. Administration	Lab. Technology
Agriculture	Librarianship
Architecture	Medical
Aviation	Music
Banking	Nursing
Broadcasting/Telev.	Pharmacy
Co-operative Secretaryship	Photography
Dentistry	Physiotherapy
Domestic Science	Printing
Economics	Radiography
Education Ordinary	Secr. and Commerce
Education Technical	Social Science
Engr. Building	Statistics
Engr. Civil	Legal
Engr. Electrical	Survey
Engr. Radio/Telev.	Veterinary
Engr. Other	Islamic
Fisheries	Metheology
Forestry	Theology
G.C.E. "A" Level & "O" Level	

An initial estimate is that between 80 and 90 per cent of overseas training scholarships and awards are recorded by the Secretary of the Central Scholarships Committee in the Ministry of Education.

Practically all AID participants are not recorded in the records of the Central Scholarship Committee. According to AID/Uganda participant training for the period FY 1956-64, 112 participants returned from study abroad as follows:

<u>U.S. Training</u>		<u>3rd Country Training</u>		<u>Combined U.S. and 3rd Country Training</u>	
Agriculture	28	Agriculture	27	Agriculture	13
Public Administration	27	Pub. Adminis.	2		
Industrial Development	7				
Education	3				
Labor	3				
Police Administration	<u>2</u>				
TOTALS	70		29		13

As of July, 1964, there were 35 participants in training: 28 on agriculture, 5 in public administration, and 2 in police administration.

As of July 1, 1964 there were 85 participants awaiting departure for training; 58 in agriculture, 16 in public administration, 2 in police administration and 9 in education.

The majority of these participants are on short training programs of 3 to 6 months.

As of June 15, 1964 one Ugandan had earned an M.A. degree in Economics at Williams College and 8 were studying in Agriculture

at the Masters level in four American universities.

Summary Remarks

Hunter in his recent study (1962/63) outlined seven areas where overseas study and training may still be needed:

- "1. Adults
 2. Those who temporarily fall out of the educational stream and wish to re-enter it.
 3. In special forms of training, such as pharmacy or dentistry.
- All these will be dwindling demands, for adults suitable for upgrading are limited in numbers and will in the main find a suitable course in East Africa; fewer will fall off the ladder of advance; some of the special subjects now unavailable will soon be provided.
4. Men who need a specialized course after East Africa training, (e.g. in range management, or in certain specialized industrial and technical fields).
 5. Secondary leavers below H.S.C. standard, capable of benefiting from further general education.
 6. Students in technical subjects who cannot enter the three technical institutes in East Africa.
 7. Graduates for post-graduate research or higher study."

"Categories 3, 4, and 7 are likely to continue as groups needing overseas courses for several years. Some special emphasis may also be put on the needs of Asians who may find that the policies of Africa's governments or their own weak position as a small minority forces them increasingly to look overseas for continued education and training." (5:109)

Taking Hunter's conclusion and our initial findings, certain basic trends, questions and issues are raised.

There is a continuing demand for overseas study as witnessed by the increase of Ugandans abroad from approximately 1000 in 1961-62 to over 1800 in 1963-64. A review of the limited statistics available raise some important issues.

a. Approximately 500 Ugandans are overseas in non-degree programs. What percentage of these on public scholarships could obtain training in their own country: How beneficial are short non-degree programs?

b. A review of the list of courses undertaken by students overseas indicated that a number of them are available in East Africa. Why are not these students studying in East Africa?

c. What is the calibre of students studying abroad? Sheffield's statistics suggest that there may well be demand for more and more overseas study opportunities:

Estimated Output Form 4 1963-69 (7 years)		
Uganda	School Candidates for S.C.	School Candidates Obtaining S.C. passes Div. I and II
	22,150	9,858

It is estimated that out of the 9858 S.C. passes at Div. I and II who are admitted to V Form, only about 3550 will meet minimum entrance requirements to the University of East Africa.

It seems at the present rate of educational development that there will be insufficient opportunities in Uganda in such areas as teacher training, technical and agricultural education, and so forth to absorb the failures at Division I and II of the School Certificate (estimated 12,292) and the approximately 6,000 Higher School Certificate candidates either not passing Sixth Form or

receiving insufficient passes for admission to the University of East Africa. It is not unlikely that many of these students will be seeking opportunities for overseas study.

A great deal more careful study and analysis needs to go into opportunities for overseas study. The United States will certainly have continued pressure to offer more opportunities for Ugandans to study in the U.S. This will require careful considerations. Initial findings lead this observer to agree with Hunter as to categories for overseas study (3, 4, and 7 above) which the U.S. should consider plus placing emphasis on assisting Ugandan educational planners in developing various types of local educational training facilities at the post-secondary level.

Contacts - Uganda - July 20 - 31, 1964

Ministry of Education

1. Dr. J. S. Luyimbazi Zake, M. P. Minister of Education
2. T. W. Gee, Permanent Secretary
3. M. K. Sozi, Chief Education Officer, Schools and Colleges Division
4. C. E. Sali, Senior Education Officer (technical) Schools and Colleges Division
5. J. D. Chesswas, Assistant Chief, Education Office (Planning), Schools and Colleges Division
6. J. E. Cooper, Senior Education Officer, Higher Education Division
7. B. P. Kiwanuka, Chief Inspector of Schools

Central Scholarship Committee

8. Dr. M. J. Alier, Chairman

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9. H. Waller, Permanent Secretary for Establishments
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11. P. S. McLean, Acting Secretary for Planning (terminating February 1965)
12. G. B. Nkojo, Economist

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13. Miss M. Martens, UN Expert

University of East Africa

14. Sir Bernard deBunsen, Vice Chancellor
15. L. M. Young, Registrar

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16. Y. K. Lule, Principal
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• Faculty of Arts, Department of History

18. B. A. Ogot (transferring to Royal College, Nairobi -- September 1964)

• Faculty of Arts, Department of Religious Studies

19. The Reverend N. Q. King, Professor

• Faculty of Social Sciences, Department of Economics

20. Professor Philip W. Bell (Rockefeller Representative)
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22. Professor Colin T. Leys
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25. Professor Paul G. Clark, Director
26. Professor Josef Gugler
27. A. R. Jolly (terminated September 1964)
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29. Professor D. B. Allbrook

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30. Professor F. B. Wilson (terminating September 1964)

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32. Professor E. Lucas

33. A. French

34. H. Creaser

35. W. S. Kajubi

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36. Professor Arthur J. Lewis, Chief of Party
(terminating August 1964)

37. Professor Lewis V. Lieb, Chief of Party

38. Donald Knies, Administrative Assistant

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39. Professor James A. Welch, Chief of Party

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40. Professor Elwyn J. Doubleday, Chief of Party

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41. J. W. H. O'Regan

British Council

42. Peter Marsh, Representative

43. David Latter, Assistant Representative

American Embassy

- 44. Ambassador Olcott H. Deming
- 45. Dean Tyler, Economic Officer

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- 46. Dr. H. C. Dawson, Cultural Affairs Officer

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- 47. Newman Jeffrey, Director
- 48. Albert C. Slaughter, Assistant Director
- 49. Edward B. Hogan, Program Officer
- 50. Francis V. Saporito, Training Officer

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Appendix I

East African Institute of Social Research, Makerere University
College, P.O. Box 16022, Kampala, Uganda

Purpose:

"The Institute's central function is to organize and conduct academic research studies on the social, political, and economic problems of East Africa." The institute is a department of the faculty of Social Science at Makerere, along with the teaching departments of economics, political science and sociology and anthropology. The institute is administered by a chairman and executive committee.

The following activities are taken from the combined, Annual Reports for Academic Years 1962-63 and 1963-64.

1. "The Uganda Education Project, sponsored by the Uganda Ministry of Education and financed by the Ford Foundation, was already under way at the start of 1962-3. A set of six studies bearing on fundamental issues of education policy had been agreed upon with the Ministry"
2. "...Land Use and Agricultural Production, financed partly by the Department of Technical Cooperation and partly with Applied Research funds provided by the Ford Foundation, commenced prior to 1962-63 academic year. Reports of research now being written up."
3. "A major development in 1963-64 was the establishment of the Economic Development Research Project, with the financial (£65,000 - 62/63) support of the Rockefeller Foundation. The project consists of a group of six to eight economists, approximately half from abroad and half from East Africa, engaged in a four-year program of research in development planning problems of the East African countries...."

"In general the studies (defined essentially in terms of functions or sectors, i.e. development plans, industrial structure, trade, transportation, agricultural exports, monetary policy, fiscal policy, education) are designed as policy analysis which focus on

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present conditions, alternative courses of action, and prospective future developments."

Besides the three group projects mentioned above, the institute has continued its fundamental and applied research in the fields of anthropology, sociology and political science.

Future Program

"The general plan of the institute for the triennium is to carry on active research programs in the three disciplines of economics, political science, and sociology and anthropology, with a substantive research director in each field....The Uganda Education Project should be completed in 1964-65, the Economic Development Research Project will continue through the triennium...."

EDUCATION AND WORLD AFFAIRS

STUDY OF MANPOWER NEEDS AND EDUCATIONAL CAPABILITIES

Preliminary Report

KENYA

This is a preliminary-draft report of an initial survey of Kenya undertaken during the summer of 1964 in partial fulfillment of USAID Contract AID/afr - 198, dated June 2, 1964. It is based upon observations made in Kenya between July 15 and August 8 and upon an analysis of such documentary materials as are presently available.

The report attempts to accomplish two purposes. In the first place, it is in the nature of a reconnaissance, suggesting "the state of the knowledge" with respect to the equation of high level manpower demand and supply. Secondly, it summarizes such data as is available.

Generally speaking manpower and education planning in Kenya is conspicuous by its absence. Consequently this report perforce is rather sketchy. Fortunately, however, the Government of Kenya has taken steps to improve this situation and significant analyses of both manpower needs and educational plans are in process of formulation. These developments should be sufficiently advanced within the next five to six months to permit preparation by Education and World Affairs of a report covering the terms of the contract.

Introduction: Of the four countries visited, Kenya was the most recently independent and the most dependent upon its expatriate population for the capital and skills so necessary for economic development. Any assessment of manpower needs or of educational planning will have to make assumptions as to the future role of the Europeans in Agriculture and Industry and the Asians in Commerce. Not only does this racial issue present a question mark, but tensions between Kenya's largest and richer tribes and the many poorer tribes are at the heart of the political scene. The Kikuyu and Luo not only have the greatest influence among Africans but, due to their greater wealth and political power, get the greater share of educational opportunities as well; thus compounding the inequality. When Kenya becomes a republic in several months, the new constitution should redefine such vital questions as the relationship between the Central and Regional Governments.

The material in this preliminary report is divided according to the three main aspects of the terms of reference: manpower needs, educational capabilities, and scholarship inventory.

I. Manpower Needs

As of August, 1964 no comprehensive manpower data was

available in Kenya. Those responsible for planning of overall development, educational expansion or personnel policies based their decisions on a number of studies of a limited nature and on the day-to-day demands as expressed by the various governmental departments. Essentially, the planning apparatus was awaiting the arrival of Calvin Davis and Ernest Stabler who will assume the tasks of manpower planning and educational planning, respectively. They arrived in August under the auspices of the Ford Foundation and should be of considerable help in later phases of this study.

The organization chart for the planning functions appears in the Development Plan. Mwai Kibaki, Parliamentary Secretary for Economic Planning in the ministry of Finance and Economic Planning is responsible for overall planning. His assistant is J. Keriri, but Edgar Edwards (Ford Foundation) has been most closely concerned with planning procedures. Under Edwards, a Mr. Craig is in the process of building up a statistics section which is compiling data on educational enrollment, among other tasks.

Although there has been talk of a more autonomous planning department, several factors dictate against this. Mwai Kibaki would be the logical choice to head such a separate planning ministry but since he is a Kikuyu, political realities make this impossible at present. Proposals to place the planning

division within the Prime Minister's office have made little headway because of the general recognition that in Kenya it would have little authority behind its directives in such a position. Thus it appears that the present situation may be the best in that the Treasury's control of the purse strings gives considerable weight to the planning division.

Edwards' term of duty is due to expire in February and, as of August, he had not decided whether to stay on or to return to the United States. Since there has been talk of balancing Western planners with those from bloc countries, Edwards' decision is extremely important.

Those concerned with manpower data within the government are primarily located in the Directorate of Personnel in the Prime Minister's Office. The director of personnel (i.e. Establishments) is Titus Mbathi, who acknowledged the great need for a comprehensive manpower survey. Pat Crichton, director of training, is concerned with the actual location and placement of civil service employees. As an indication of the lack of recent manpower data, Crichton states that he used Guy Hunter's preliminary survey, done in 1962 and George Tobias' manpower survey of Tanganyika which he assumed to be generally applicable to Kenya. Crichton recognized the limitations of these documents, but felt that they gave the best available es-

timates of shortages in various categories. Crichton followed no long-range plan, but acted mainly in response to the immediate demands as expressed by the various ministries. When, for example, the Ministry of Agriculture requested three men trained in forestry and two administrative people, Crichton would locate the men and arrange for their training wherever possible. He worked closely with the Kenya Institute of Administration (KIA) which provides short courses of a practical nature for the civil service. In fields not available in Kenya, he would arrange for an appropriate course overseas; in some cases, tailoring the course to suit the specific needs of the candidate. Since these proceedings were considered in-service training, they did not fall within the jurisdiction of the Ministry of Education. Crichton observed that since pharmacists, for example, were already being trained in sufficient numbers, it would be a waste of precious resources to establish a pharmacy school at the present time in Kenya. He stressed that the greatest need was at the "Middle Level"; those requiring secondary education plus practical training. This general need has been widely recognized and in a speech at The Kenya We Want Convention in August 1962, J.E. Roche stated that the present ratio of two sub-professionals to one professional in Kenya should be raised to at least four:one in order to make efficient utilization of high level manpower.

Roche went on to estimate that the total requirement for sub-professional manpower (allowing for wastage and growth) would be 27,300.

David Anderson, staff development advisor in the Directorate of Personnel, (Ford Foundation supported) was working on a study of the Civil Service in order to develop an Africanization Program, and the following preliminary tables indicate the magnitude of the problem:

KENYA CIVIL SERVICE *
MAY 1964

<u>CLASS</u>	<u>No. in Post</u>	<u>Afri-cans</u>	<u>Euro-peans</u>	<u>Asians</u>	<u>Arabs</u>
Administrative Officers	350	221	105	13	11
Professional Officers	1153	156	772	224	1
General Executive	853	225	106	515	7
Departmental Executive	545	181	171	192	1
Semi-Professional	179	139	16	24	
Personal Secretaries	258	23	119	116	
Nursing Class	261	69	152	40	
Police & Prison Uniforms	1339	918	322	96	3
Departmental Technical	1289	444	540	302	3
TOTAL	6225	2376	2303	1522	26

* From David Anderson, August 7, 1964

<u>Ministry/Department</u>	<u>No. of posts with a minimum salary of £745 and above</u>	<u>No. of Africans in post as at 31.1. 1964</u>
Prime Minister's Office	154	58
National Assembly	12	3
Public Service Commission	10	3
Exchequer and Audit	42	8
Judicial Department	91	20
Agriculture and Animal Husbandry	229	21
Natural Resources	80	2
Finance and Economic Planning	58	13
Commerce and Industry	63	22
Lands and Settlement	168	11
Information and Tourism	24	13
Defence and Internal Security	392	94
Labour and Social Services	80	44
Local Government	28	2
Works, Communication & Power	346	13
Justic & Constitutional Affairs	51	3
Education	1144	28
Health and Housing	326	35
Home Affairs	765	176
Lands, Surveys & Town Planning	158	28
Regions	Say <u>70</u>	Say <u>38</u>
	4321	635

Number of established posts 1963/64 estimates 8183

Number of Africans in post 2242

From what limited manpower data does exist, it appears that demand will exceed supply for many years to come; particularly at the sub-university level or Category II. Anderson's survey of the civil service indicates the large requirements for Africanization but the private sector remains an unknown factor. Mr. Richmond of the Kenya Federation of Employers stated that with the exception of such giants as Shell and B.P.,

most industries cannot afford to hire Africans in large numbers. Due to the surplus of Europeans from the Civil Service and from farming, small industries have an available reservoir of trained people.

It is expected that Calvin Davis will have identified considerable detailed information as to specific categories of manpower requirements in a few months. In the meantime, it will be recognized that reliable data on Kenya's manpower requirements for the most part is not available.

II. Educational Capabilities

The basic plan for Kenya's educational development is included in the Development Plan 1964-70 (pages 102-107). Edwards in the Treasury was responsible for pulling together much of the overall plan and both he and Dr. Kiano, Minister of Finance and Industry, privately admitted that education was one of the weakest parts of the Development Plan.

Before turning to a detailed examination of the plan, it should be noted that education in Kenya is awaiting a report that will be of great importance in shaping future policy.

For the first time since 1949, a comprehensive review of education in Kenya is being undertaken at the request of the Ministry of Education. Appointed in January 1964, the so-called Education Commission was asked:

To survey the existing educational resources of Kenya and to advise the government of Kenya in the formulation and implementation of national policies for education which:

- a) appropriately express the aspirations and cultural values of an independent African country,
- b) take account of the need for trained manpower for economic development and for other activities in the life of the nation,
- c) take advantage of the initiative and service of regional and local authorities and voluntary bodies,
- d) contribute to the unity of Kenya,
- e) respect the educational needs and capacities of children,
- f) have due regard for the resources, both in money and in personnel, that are likely to become available for educational services.

g) provide for the principle of educational requirements for adults,

h) to report to the Minister of Education,

The Commission has been meeting regularly during the past year, receiving written testimony, holding hearings, and in other ways gathering information and opinions on Kenya's educational aspirations. The Chairman of the Commission is S.H. Ominde, Professor of Geography, University College, Nairobi, and the secretary is Roger Carter who is located in the Ministry of Education. Although the precise timing of the Commission's report is uncertain, they now expect to issue a qualitative report by November and a more detailed quantitative report by February 1965. It is believed that a draft of the first report has been completed and will be published shortly. Subsequently, presumably before the end of 1964, the government will publish its response to the report in the form of a white paper.

The follow up of the Commission report should be greatly facilitated by the recent arrival in Nairobi of Ernest Stabler, seconded to the Ministry of Education from Wesleyan University by the Ford Foundation. He will serve in a planning capacity and will work closely, it is expected, with Calvin Davis in gearing educational development to manpower needs. Pending the reports of the Education Commission and the work of Davis and Stabler, Kenya's educational plans will be based on the goals laid down in the Development Plan.

By 1970 the plan calls for:

1.) Universal primary education, which is rapidly changing to a seven year course from eight years,

2.) enough places at the secondary and higher levels to educate those with recognized abilities,

3.) organizing the educational system to meet the manpower needs of the country,

Taking these in order, it appears that universal primary education is less a concrete goal than an attractive (and politically popular) slogan. With primary education largely a local responsibility, the achievement of this goal is likely to vary greatly among the regions. Any really determined effort to attain universal primary education would divert precious resources from secondary and higher education thus conflicting with the plan's third goal of meeting the nation's need for high level manpower.

The Plan accords "highest priority" to the expansion of secondary schools and the targets set forth call for an increase in enrollment of form 1 at 10 percent per year and at form 5 at 18 percent per year.

Table III - Enrollment Targets - Kenya Education

	1963 Actual	1964 Actual	1970 Planned	Per cent increase 1964-70
Standard VII	62,500	114,513	136,507 (1)	15
Form I	8,500	9,400	16,600 (2)	77
Form II	8,190	8,300	14,700 (3)	77
Form III	6,240	8,000	13,100	64
Form IV	4,777	6,100	11,600	90
Total I-IV	27,707	31,800	56,000	76
Form V	612	800	2,200 (4)	275
Form VI	445	600	1,800 (3)	300
Total V-VI	1,057	1,400	4,000	286
Total I-VI	28,764	33,200	60,000	181

- (1) Not subject to influence by policies adopted for the 1964/70 period.
- (2) Target: 10% increase per annum.
- (3) Attrition taken at 2.5% per annum.
- (4) Target: 18% increase per annum.

Table taken from Development Plan: 1964-1970, (Kenya: 1964), table 17, page 103. The figures for standard VII, both actual and planned, were provided by Professor Edwards and exceed those figures published in the Plan.

E. F. Sheffield of the University of Toronto, in a study prepared in July 1964 for the University of East Africa on entrance requirements estimated a projection of 1,755 sixth form leavers in 1970. This is closely in line with the Development Plan. Sheffield estimates that in 1969, 880 Kenyans will obtain two or more principal passes on the Higher School Certificate, the present minimum entrance requirement for the University of East Africa. Unless the requirement is changed, the Kenyan input into the University of East Africa will be:

<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
340	370	550	660	770	880

The enrollment figures are being refined by the Statistics unit in the Treasury. The tables compiled by Sheffield in the University of East Africa report provide the most recent estimates of secondary school output.

The Development Plan offers no long term solution for the growing teacher shortage, merely stating the determination to continue relying heavily on expatriates. The estimated demand for teachers in form I through IV, allowing for wastage, will be 1,573 by 1970. Towards this figure, only 416 are in the educational pipeline in East Africa, leaving roughly 1100 or roughly 74% to be recruited from overseas. The proposed expenditures for education during the planning period call for a decline in the percentage allocated to teacher training from 8 percent in 1964-65 to 4 percent in 1970 with a low of 2.8 percent 1966-67. Of the 254 new teachers required for forms V and VI, 219 will have to be recruited from overseas. Kenya gives a lower priority to this manpower requirement than to many others.

Before turning to other types of secondary and post secondary education, it is worth noting the place of the third long range objective found in the Development Plan, namely fitting education to the nation's manpower needs. As described above, no quantitative assessment of Kenya's manpower needs is available although several studies of a limited nature have been done.

Thus until Calvin Davis is able to compile a more complete survey of the manpower situation, educational plans will have to continue to pay lip service to the goal of meeting these needs. It is significant that the determination to plan education in terms of manpower requirements is widespread in Kenya, even without the substantive knowledge necessary to accomplish this goal. The Minister of Education unwittingly revealed much of the present relationship between manpower planning and education when he stated: "Yes, we have a manpower survey". Then turning aside he asked one of his subordinates, "Is it finished?"

The Development (capital) Estimates for 1964-65, the first year of the plan, allocate £620,010 for education. While it is difficult to compare categories, it appears that these estimates go a long way towards meeting the £659,400 called for in the Development Plan. A memorandum attached to the development estimates states that "By no means all the expenditure is included in the estimates." The memorandum goes on to state:

"Another vital element of the Development Plan, the financing of which falls almost entirely outside the Development Estimates, is the expansion of University College, Nairobi on which some £150,000 is expected to be spent in the coming year." No details are given as to the source of this revenue, but even

the £150,000 is only one half of the amount called for in the Development Plan. Recurrent expenses in education are estimated to be £2,801,600 for the fiscal year ending June 30, 1965. This is a reduction of £3,981,900 from the previous year due to the transfer of responsibility for primary, intermediate and secondary education services to the local authorities and regions. For details concerning estimated expenditure on education see the Development Plan (pp. 101-107) Development Estimates for the Year 1964-65 and 1964-65 Estimates of Recurrent Expenditure.

Among other difficulties, there will be increasing pressure to balance the educational expenditures among the racial groups. From 1957 to 1963 expenditure from public funds on education was over twenty-five times greater per capita in the non-African sector than in the African sector. Despite efforts to integrate the educational system, racial imbalances continue to present a formidable obstacle to national unity.

The production of high level manpower in Kenya will depend upon qualitative factors as well as such quantitative factors as expenditure and enrollment. The institutions which produce high level manpower will undoubtedly change during the coming years to meet the new requirements of a developing society. The University College, Nairobi, is under severe criticism for its alleged failure to respond to the demands of an independent African nation. Both expatriates and Africans in the government accuse the University College of ignoring the country's needs and since the college has in fact been without a principal for over six months, a lack of direction is hardly surprising.

It is worthwhile to make several observations concerning the future direction of the University College, Nairobi, which is a constituent unit of the federal University of East Africa. On the one hand the report of the Education

Commission and the leadership to be exerted by Arthur Porter, the principal-designate (presently of Sierra Leone) will have great bearing upon the role which the University College will assume. On the other hand, the growing pressures of national pride will place severe stains upon the unity of the multi-national University. During the present triennium financial necessity will probably preserve the division of labor, but in the long run, national pressures to elevate sub-university institutions to degree level may fragment the University.

Although all the sub-university institutions cannot be considered at the same academic level, nonetheless they tend to share certain characteristics: most of the institutions provide a type of training not included as such in either the secondary schools or in the University College, Nairobi, and in many cases there is pressure toward some form of affiliation with the university.

The Kenya Institute of Education is an example of the government's taking on a task which the University College, Nairobi, has not accomplished. Since the present triennium for the University had not allowed for an Institute of Education in Nairobi the Government established the Institute following the Mombasa Conference. According to the terms of reference the functions of the Institute are:

- A. "To administer a scheme of examinations on behalf of the Ministry of Education and to make recommendations for the award of teaching certificates.
- B. to be a center of professional activity for teachers, officers of the Government and others engaged in educational work.
- C. to promote and cooperate in the provision of conferences and in-service courses for teachers and others engaged or intending to engage in educational work.
- D. to arrange for lectures and courses of lectures or demonstrations in the like for member institutions and for the interchange of teachers between member institutions.
- E. to promote educational research and secure due publication of the result and to foster improvements in educational practice.
- F. to provide advisory services to Government and other organizations as requested from time to time.
- G. to perform such other functions as may be approved by the Minister of Education."

K. Mwendwa, Chief Education Officer (and Chairman of the Board of Delegates of the Institute of Education) half-jokingly acknowledged the fact that the government was in fact "blackmailing" the University College into taking over the Institute of Education. At present the Institute is located on the outskirts of Nairobi, near the East African Common Services Organization, and the only fulltime staff, Peter King, acknowledged that as yet the Institute's only function was to coordinate the country's system of teacher training by administering applications, examinations, and so forth. King was hopeful that the Institute would assume such

functions as research under the auspices of the University College, but he stated that due to the University College's lack of leadership, educational research remains the responsibility of the inspectorate in the Ministry of Education.

The Kenya Institute of Education has also prepared policy papers for the Ministry, such as the so-called "crash Program" of up-grading T-1 (the top grade of primary teachers) by means of short courses and in-service training to enable them to teach in the lower forms of secondary school. King stated that this program will provide less than 500 teachers while denuding the primary schools of their best teachers. For more detail on the background and present status (demand, supply and training broken down by regions) see The Development of Teacher Training in Kenya.

The Kenya Institute of Administrations (KIA) is also a creation of the government and entirely separate from the University College. When it was started in July 1961, it was nicknamed the "pressure cooker", as it provided short courses of a specific nature to a very large number of government workers. Since this initial period KIA has attempted to provide courses of a broader nature, since so many civil servants change jobs that it is impractical to prepare a man for a narrow skill. The present staff consists of 28 lecturers (partially from Syracuse University team on an AID contract) and KIA turns out roughly 350 students per year

with courses ranging from two week to fifteen months. The program is made up of five autonomous departments: 1. Public Administration, 2. Executive Training, 3. Local Government, 4. Cooperative Training, 5. Community Development. And the training is based upon practical rather than theoretical knowledge. The case method is used whenever possible, and one of the reasons that Mr. Alliston Anderson, the acting Principal, gave for keeping the KIA separate from the University College is that the government would be less willing to lend documents from its files for use in case studies than if the University was in command.

Although KIA presently functions as an arm of the Directorate of Personnel, David Anderson, the Staff Development Advisor, stated that he is on a committee looking into the feasibility of broadening the program of KIA and the possibility of affiliation with the University College. For further information on KIA see the brochure entitled: Kenya Institute of Administration which describes the purposes and functions of the institute.

The Kenya Polytechnic Institute provides training at the middle level of so-called "technicians". Set up in 1960 by the Colonial government, it has been supported mainly by the DTC and aided by staff from UNESCO. Mr. Thomson, the acting Principal, explained that the present enrollment of 1,005 was nearly up to capacity and that the Institute planned to

expand to 1400 within three years. The brochure, Kenya Polytechnic Prospectus 1964, gives a description of the wide range of courses offered. The main examining body is the City and Guilds of London Institute. Fees vary from 250 shillings per term for full time students to 150 shillings per term for day release courses and 80 shillings per term for evening courses with the government making up the deficit. Most students come from industry (EACSO) or are sponsored by the Ministry of Works for so called sandwiched or day release courses. However, due to the burden of the fees, most of the full time students are Asians, while the vast majority of Africans are enrolled in evening or day release courses.

This middle level, technical training (identified by many as highest priority for Kenya) is only available at one or two other schools in Kenya. Every effort is made to ensure that the Polytechnic courses do not overlap with either the secondary schools or the University College. On the one hand, the engineering courses at the Polytechnic have expanded to meet increasing demand while general science courses have declined as secondary schools have become stronger in this field. At the higher level advisory panels at each department in the Polytechnic have representatives from the faculty of the University College (as well as industry) to guide in the curriculum in teaching and to assure that no duplication of

university-level work takes place. Although there are no plans at present for affiliating the Polytechnic more closely with the University College, top students from the Polytechnic can go on for their degrees.

According to John L. Cooper, Agricultural Advisor, USAID/Nairobi Egerton Agricultural College is being "built into the educational ladder" in an attempt to provide a more flexible approach to agricultural education. Although the College was initially intended to serve the needs of the European settlers, it now provides a two year certificate course for Africans. AID, through a contract with the University of West Virginia, is urging a shift to a three year course (along with the Agricultural schools at Morogoro, Tanganyika and one in Uganda) in the hopes of eventually affiliating such training closely with the University of East Africa.

Although the research institutes are a consumer rather than a producer of high level manpower, the status of these institutions should not be ignored. Apparently the Frazier Report recommended separate facilities for pure and applied research; the former being the responsibility of the Universities and the latter being under the jurisdiction of the appropriate Ministries. The duplication of financial and human resources is not only expensive but impractical in terms of the needs of growing societies.

The College of Social Studies at Kikuyu is a different type of post-secondary institution in that it is entirely outside of the formal education framework. This institution offers short courses in the social sciences for non-degree students to enable many who were unable to survive the hurdles of selection examinations to continue their education at a later time in their careers. Since this program is not directly related to manpower needs or to specific areas of training many educators referred to it as an impractical luxury. However it has an excellent staff and the Carnegie Corporation of New York has supported the institute in the belief that such a second chance for earlier drop outs from the formal education system is of great value to Kenya.

Turning to the more general problem of the place of secondary education within Kenyan society, both qualitative and quantitative changes can be seen appearing. With top priority being assigned to the expansion of secondary education within the planning period the reliance upon expatriate staff will increase accordingly. Aside from the political and psychological forces calling for the "Africanization" of the educational system, the demand for middle level manpower (particularly with technical, practical training) will inevitably exert pressure on the secondary institutions to broaden from their narrowly academic tradition to include what the United States would call

a more comprehensive program.

A feasibility study on a Junior college in Kenya by a team from the University of California at Berkeley (Chairman Medsker) reported to AID recommending that a junior college be set up near Nairobi capable of enrolling 500 students in five years. The report cited the need for more technical training in Kenya at a sub-university level and ruled out expansion of the Polytechnic as a long term solution. The proposed Junior College would combine academic with technical instruction after school certificate to prepare students either for practical jobs or for further study.

Both AID officials and Africans agreed that the Junior College idea had not been favorably received in the Ministry of Education. David Sperling, the Principle of Strathmore College, (the only school in Kenya doing solely Sixth form work) stated that he has been trying unsuccessfully for several years to broaden Strathmore's academic program to include more technical, practical subjects. Sperling indicated that although some Africans recognized the need to broaden the secondary curriculum, Kenneth Matiba, the Permanent Secretary in the Ministry of Education, was strongly opposed to any mixing of academic and technical education.

AID has recently been supporting an experiment in vocational agriculture at a secondary school at Chavakali. The "Vo-ag" experiment as it is called got off to a slow start in 1959

because it was a day school, and also because many parents resisted such attempts at changing their established methods of farming. However, vocational agricultural subjects have now achieved Cambridge examination status and the success of the Chavakali experiment in stimulating the productivity of the entire community is being started in five other pilot schools. The report of the Education Commission will undoubtedly make recommendations concerning the type of secondary education which can best meet the needs of Kenya.

Although primary education is only of secondary concern in terms of supplying high level manpower, nonetheless the development of a balanced educational system is based upon sound primary schools. Since less than 10 percent of Kenya's primary school leavers proceed to secondary schools, the rapidly expanding primary system is creating a reservoir of inadequately trained youth who are a potential source of social and political trouble. An interim report by the Youth Department of the Christian Council of Kenya and the Christian Churches Educational Association, The Training and Employment of Primary School Leavers, estimates that in January 1965, more than 90,000 youths will fail to obtain further education, training or paid employment. Because of the academic single tract system, geared to examinations leading to higher levels, primary schools generally educate the children away from their rural, agricultural environment and create unrealistic aspirations. The Christian

Council of Kenya and the Christian Churches Educational Association stated that they were "impressed by the breakthrough in attitudes achieved by the course in vocational agriculture at Chavakali," and hope that they will be able to contribute to a solution to the growing problem of the primary school leaver by teaching that agriculture can be a worthwhile way of life, fulfilling both personal and national needs.

In summary, Kenya's educational plans identify the critical bottleneck at the secondary level and call for expansion to help fill the gap. However, the supply of graduate teachers will continue to be met mainly from overseas and there are large questions as to the role which the University College and various sub-university institutions will play in the coming years. This present EWA survey will give further attention to these matters.

III. Overseas Study

Study abroad plays a very important part in the potential supply of Kenya's high level manpower. All offers of overseas scholarships are received by the Ministry of External Affairs before going to the Central Selection Committee within the Ministry of Education. This represents a recognition of the political reality involved in student exchange. It is then the responsibility of the Central Selection Committee to consider the educational merits of the proposed scholarships and to locate the students. Theoretically all scholarships must be cleared through the committee, but in the past, several notable exceptions managed to bypass the committee. (Particularly the Bulgarian episode in the spring of 1964 in which a group of students selected by the committee were pushed aside at the airport by a group assembled by the Minister of Home Affairs, Mr. Odinga). Professor Ominde, the Chairman of the Education Commission, is also the chairman of the central selection board and the secretary is Davidson Ngini of the Ministry of Education. Every effort is being made to tighten up on overseas study but the machinery is as yet rather ineffective due to political forces.

The administration of the United States affiliated programs appears to be generally smooth. Because IIE has a regional office represented by Gordon Hagberg and Melvin McCaw,

USIS takes advantage of their operational capabilities. Thus IIE feeds information to interested students, administers the qualifying tests and assumes the operational responsibility for placing the students. Under the "supplementary grant program" the state department makes up the difference between the scholarship offered and the required amount for the maintenance of the student. In the actual selection process James Culpepper (USIS) and Hagberg or McCaw work with the Central Selection Board. This year 46 students went to the United States on this program.

The ASPAU program took 26 Kenyans this year and is administered through Miss Maxine Stavroulakis, the representative of the African American Institute in Nairobi. Miss Stavroulakis formerly worked for the IIE and is thus in close contact with Mr. Hagberg in Nairobi. The African American Institute in New York sends information and forms for applications to Miss Stavroulakis who then administers the college board test, (both verbal and mathematics) in eighteen centers throughout Kenya. In doing this she works closely with the Ministry of Education and with the secondary school headmasters. ASPAU sets the passing grade on these examinations and the list of students goes to the Ministry of Education. In shortening the long list of applicants to a manageable size, Mr. Eldridge, the AAI representative in Tanganyika, comes to Nairobi and meets

with several members of the Ministry and with Miss Stavroulakis. After the 1964 list had been shortened to approximately 85, the team came out from the United States and met with four members of the Central Selection Committee (one was from the Directorate of Personnel). In this meeting the list of 85 was narrowed to 20 (all those who were not citizens of Kenya were eliminated). Then the total Central Selection Committee added six to this list in order to balance out tribal representation. Miss Stavroulakis said that of the 26 selected, ten had passed higher school certificate and the Kenyan government insisted that several accepted by ASPAU must go to the University of East Africa.

There was unanimous agreement that overseas scholarships should not compete with local institutions but should fill in the gaps in specific fields not available locally, however, there was a certain amount of criticism that ASPAU took some of the best students. As mentioned above the majority of the ASPAU students were at the school certificate level whereas the University of East Africa only accepted students after higher school certificate.

The annual Education Exchange Report of 1963 and the projections for 1964 and 1965 which the Cultural Affairs Officer, James Culpepper, files in Washington is an excellent list of the Kenyan students studying overseas. The report filed by

the Cultural Affairs Officer, a classified document, is extremely thorough, analyzing the machinery, the approximate numbers, and the results of overseas study from Kenya.

The AID participant training program and the British DTC program are largely for non-degree students involving particular training for a specific job. Mr. Greatbatch at the D.T.C. stated that they had been able to meet the demands of the Kenyan government in these training schemes because the government and EACSO was not able to spare more than 200 trainees per year. The training ranges from several months to several years and covers a wide variety of subjects. In contrast to ASPAU, the AID Participant Training Program is closely geared to specific projects and picks the man and training for a specific job. This is called training as opposed to academic education.

As of January 1964, 374 participants had been selected from Kenya and EACSO with 48 added by August 1964. The list for FY 64 should be out by now and should provide breakdowns by field of study. Such training schemes fall under the jurisdiction of the Director of Personnel in the Kenya Government which coordinates requests from the various government departments, find training schemes overseas and in some cases specifically tailors a training course to meet particular needs. Although Britain and the United States account for the largest

share of overseas scholarships, numerous other countries award scholarships to Kenyans and the United Nations gives six or eight all inclusive study grants per year. These are usually related to specific training tasks and are run through agencies such as UNESCO, or WHO, or FAO.

L. Ngini, secretary of the Central Selection Board, described the attempts by the Kenyan government to coordinate the offers and to utilize them most effectively. He stated that:

1. Between 15 and 20 Kenya Government Overseas Bursaries were given each year. For these the Kenyan government paid transportation, room and board and tuition.
2. Between 20 and 30 Kenyan Government Partial Scholarships which involve roughly £250 each were also given each year to supplement students who were awarded scholarships from other sources.
3. IIE administers the a) supplementary grant program of the State Department (30 to 40 each year.) b) Inter-American University in Puerto Rico (approximately 10 per year). c) Kenya teachers studying in the United States under State Department funds.
4. ASPAU accounted for 26 students this year.
5. AID participant training involved 12 educationists on a tour of the United States and approximately 25 that are being sent to the American University in Beirut, besides the other AID participants in such fields as agriculture and community development.
6. The Commonwealth Scholarships - Kenya competes with all other members of the Commonwealth for roughly 100 scholarships and (according to Ngini) does fairly well.

Except for such specific programs as ASPAU or AID participant training, it is difficult to determine precise figures on overseas study, and, despite the Government's efforts to control the flow of students, many Kenyans continue to go overseas under various auspices. As the 1963 Education Exchange Report of the Cultural Affairs Officer indicates, many of these are sponsored by churches and other private agencies, while it is clear that certain countries are using scholarships for political purposes. A recent Soviet offer of 200 scholarships in technical fields, had a very disruptive effect; partially because the Ministry was hard pressed to locate qualified students and partly because internal politics require that scholarships reflect a satisfactory tribal balance/

Although there was vague talk of relating Kenya's scholarship program to her manpower needs, the lack of any quantitative data made this largely speculative. The Government's proposal to use student loans (Development Plan, p. 104) reflects a recognition of the concept of investing in high-level manpower.

Since a large number of Kenyans came to the United States during the so called "airlifts" of several years ago, the problem of the effective recovery and utilization of these students is extremely important. Solomon Adagala, Kenyan student advisor in the United States, estimated that there are presently over 1,200 Kenyans in the U.S. He is working on the 1964/65 list

of Kenyans studying in the U.S. and Canada and hopes to complete it by the end of October. Adagala stressed the difficulty of keeping track of the two-way flow of students without adequate staff and he acknowledged that there was practically no data available as to the levels, fields of study or career plans of the students. He described his "biggest headache" as the large number of unsponsored students - many at the high school level - remaining from the airlifts. According to Adagala, nearly 200 of these students acquired immigrant visas (enabling them to get jobs) with the result that they were drafted into the armed services. Although Adagala described the machinery for selection, placement and follow-up as greatly improved, it is clear that the poor communications between the Kenyan Government and its overseas students make for an inefficient utilization of the country's precious human resources.

In an attempt to remedy the situation, the Ford Foundation supported recruitment visits by the Public Service Commission of the three East African Governments and EACSO. The first trip in the spring of 1963 was organized by Kenneth Luke, the East African student advisor in London. Last spring the I.I.E. assumed the task of providing logistical support for the visit; arranging interviews and schedules. Mrs. Acker at IIE described the trip as hectic as there was insufficient time

to enable IIE or the team to mount a thorough survey of the situation.

The Kenya representatives were Mr. Alex Mathu of EACSO and Mr. Mureithi and Mr. Josiah of the Public Service Commission. As yet no report has been published.

IV. Conclusions

Pending the new survey of Kenya's manpower needs to be undertaken by Calvin Davis, the demand side of the manpower equation is extremely uncertain. The Hunter survey is widely recognized as out of date. On the one hand the task of Africanizing the Civil Service and EACSO will be able to absorb all the post-secondary output which can be produced within East Africa and overseas for some time to come. On the other hand scarce resources must be allocated according to some system of priorities, and until such needs are identified, educational plans will lack a clear focus.

Although the Development Plan identifies the critical bottleneck at the secondary level, no provision is made for the expansion of teacher training facilities, so that continued reliance upon expatriate staff will be essential. On the supply side, not only quantitative but qualitative factors are involved as well, and the report of the Education Commission will provide guidelines for the types of post-secondary education which are most appropriate for Kenya.

Since only a small number of students fulfill the requirements for entrance to the University of East Africa, there is at present a real need for study overseas. However, it is important that any such programs supplement rather than compete with the

indigenous institutions. In order to make best use of the offers of study overseas, the Government of Kenya must develop a firm control over the selection process and establish the machinery to follow-up and recover the students so that they are utilized effectively. Although the rudimentary machinery exists, it is evident that indigenous education and overseas study at present are shaped by forces other than manpower requirements.

KENYA

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Extracts from a Report of an Evaluation conducted Feb. 18 - 24, 1963, by USAID/Kenya on the work of the Earlham College Contract Teaat Chavakali in Nyanza Province, Kenya.
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III. Overseas Study Inventory

1. LIST OF KENYA STUDENTS IN THE UNITED STATES & CANADA, 1963/64 Academic Year. Office of the Adviser to Kenya, Tanganyika and Zanzibar Students in North America, Washington, D.C., Feb., 1964)
2. SUMMARY OF A.I.D. TECHNICAL ASSISTANCE TO THE GOVERNMENT OF KENYA IN PROVIDING PARTICIPANT TRAINING FOR PERSONS IN FIELDS RELATING TO AGRICULTURE DURING U.S. FISCAL YEARS 1956 through 1964. A.I.D. 2/July 9, 1964. 1 pp. mimeo'd.
3. KENYA STUDENTS AWARDED BRITISH TECHNICAL ASSISTANCE BURSARIES SINCE 1st JANUARY, 1964. EASCO 27 Nairobi 27 1964. Typescript - list of students by field.

Kenya: List of Persons Interviewed

July, August 1964

Hon. J. D. Otiende:	Minister of Education
Mr. K. Mwendwa:	Chief Education Officer and Director of Institute of Education
Mr. L. Ngini	Higher Education and Secretary Central Scholarship Board
Hon. J. G. Kiano:	Minister of Commerce and Industry
Mr. William Atwood:	U.S. Ambassador to Kenya
Mr. William Wild:	Director, USAID, Kenya
Mr. Cornelius Miller:	Program Officer, USAID
Mr. Reid Cross:	Assistant Program Officer, USAID
Dr. Winfield Niblo:	Education Advisor, USAID
Mr. John C. Cooper:	Food and Agriculture Officer, USAID
Mr. Gordon Hagberg:	Regional Director, Institute of International Education (IIE)
Mr. Mel McCaw:	I.I.E.
Mr. James Culpepper:	Cultural Officer, USIS
Sir Bernard de Bunsen:	Vice-Chancellor, University of East Africa
Professor Arthur Lewis:	retiring Chief of Party, Teachers for East Africa and consultant to the Kenya Education Comm.
Dr. Frank Sutton :	Ford Foundation
Mr. Courtney Nelson:	Ford Foundation
Mr. Peter King:	Kenya Institute of Education

KENYA

Mr. Alex Mathu:	Director of Personnel, EACSO (General Fund)
Mr. H. M. Kajura:	Director of Recruitment and training, EACSO (general fund)
Mr. Titus Mbathi:	Director of Personnel, Ministry of Establishments and Training
Mr. Pat Crichton:	Director of Training, Ministry of Establishments and Training
Mr. David Anderson: (Ford)	Staff Development Advisor, Min- istry of Establishments and Training
Dr. Edgar Edwards:	Planning Advisor, Treasury
Mr. Roger Carter:	Secretary to Education Commission
Mr. Bruce Greatbatch:	Director D. T. C.
Mr. D. Thorup:	Assistant Director, UNTAB
Mr. David Sperling:	Principal, Strathmore College
Mr. Alliston Anderson:	Ag. Principal, Kenya Institute of Administration
Mr. Thomson:	Ag. Principal, Kenya Polytechnic Institute
Mr. Richmond:	Kenya Federation of Employers
Professor Sears:	Ag. Principal University College, Nairobi
Dr. Otieno:	University College, Nairobi

KENYA

Kenya: Key People to Follow - Up in November

I. Manpower Needs:

David Anderson:	Assessment of Civil Service needs
Mwai Kibaki:	Director of Planning (not seen previously)
Calvin Davis (Ford):	Manpower planner
Edgar Edwards (Ford):	Planning division
Frank Sutton:	Ford Foundation

II. Educational Capabilities:

Prof. Ominde, Roger Carter:	Preliminary reports of Education Commission
Edgar Edwards:	Statistics on enrollment, etc.
Kenneth Matiba:	Permanent Secretary, Ministry of Education. (not seen previously.)
Mr. Mwendwa:	Progress of Plan, Status of Institute of Education
Peter King:	Institute of Education
Mr. Porter:	New Principal, University College
Mr. Clough:	Egerton Agricultural College

III. Scholarships:

Mr. L. Ngini:	Functions of Scholarship Board
Hagberg and McCaw	IIE

KENYA

James Culpepper:

USIS/up-dated list

Ezekial Josiah or Mr. Mureithi: Public Service Commission (went
to U.S. on 'recovery' mission--
not previously seen)

AAM: September 16, 1964
Revised September 21, 1964
Revised October 16, 1964

EWA/AID: NI

EDUCATION AND WORLD AFFAIRS

STUDY OF MANPOWER NEEDS AND EDUCATIONAL CAPABILITIES

Preliminary Report

NIGERIA

Introduction

This is a preliminary draft report of an initial survey of Nigeria undertaken during the summer of 1964 in partial fulfillment of USAID Contract AID/afr-198, dated June 2, 1964. It is based upon an analysis of such documentary material as has been available, and upon observations made in Lagos, Ibadan, Enugu, Port Harcourt, Nsukka, Kaduna, Zaria and Kano between August 8 and 27.

The report attempts to accomplish two purposes. In the first place it is in the nature of a reconnaissance, suggesting "the state of the knowledge" with respect to the equation of high-level manpower demand and supply. Secondly, it summarizes such data as is available.

Broadly speaking, manpower planning in Nigeria leaves much to be desired. In response to a recommendation of the Ashby Commission, the federal government established and staffed a Manpower Board and this organization has produced at least one report and a preliminary draft of a comprehensive manpower survey. But the relationship of the Board to other agencies of government, including the Ministry of Education, is not satisfactory, and the quality of the preliminary survey is of questionable merit. Educational planning has been more comprehensive and complete. But even here there remain uncertainties of implementation. It is expected, however, that more information will be available in subsequent months for the purposes of this study and that an adequate report of the situation in Nigeria will be possible.

I. Emerging Nigeria

In Nigeria--the most populous (55,620,268 people, according to the 1963 census) of the new African nations--the revolution of rising hopes which carried the country up to and beyond independence in 1960 is giving way to the frustrations of unfulfilled expectations.

For many Nigerians there is the realization that, materially, they are no better off now than when the British ruled. For some, there is the bitter recognition that the country ran better when the colonials were there. Corruption is a way of life, and is more widespread and accepted than has been credited. Apathy is beginning to envelop the civil service. A thin layer of educated elite has imposed itself atop the vast, illiterate mass of the people, and the gulf between the well-off and the bulk of the population is wide, visible and growing. Inflation--with price jumps of from 20 percent to 40 percent in recent months--and higher indirect taxation have wiped out the minor wage increases granted after the divisive, country-wide general strike of mid-1964. The uncontrolled growth in population continues to offset any gains in the economy. The economy, second largest in the African continent, is

lagging, and foreign investment--essential for half of the country's Six-Year Development Plan--is not coming in either at the rate or in the amount required to meet the plan's targets.

The Development Plan is apparently taken more seriously in Washington than in Lagos. In fact, it seems to have been written (by U.S. experts) with more of an eye on overseas investors than with a relevance to Nigerian realities. At any event, few Nigerians pay more than lip service to it, and the consensus of experts--U.S., British and Nigerian--is that the country is falling well behind the development schedule laid down. No one can cite the precise rate of economic growth, but no one met ventured to predict that the country was meeting the four percent per annum growth rate on which the Development Plan (and the country's related manpower projection) is predicated.

Labor has emerged as a new and potentially explosive political force. On the surface, the general strike--which ended June 30 with the government's capitulation--was a demand

for a higher basic wage, better living conditions and a protest against extravagance among government officials. Underneath this was a national protest movement against the politicians-- for the first time, Nigeria experienced a mass movement of opposition to the government which cut across tribal, regional and religious lines.

Despite this catalog of woes, Nigeria remains the most moderate of the African democracies. Although constitutional freedoms have suffered some limitations, and although one region has gone through the ugly process of treason trials, the worst features of suppression and the one-party monopoly of power have so far been avoided. However, the capacity for leadership at both the federal and regional levels is still in doubt, and whether Nigeria will continue as a federated state, or survive without further violence, will depend in good part on the results of the country's second general election, to be held before the end of 1964.

As in most underdeveloped nations (East as well as West), Nigeria's economic development program is strictly controlled by the government, which invariably means that political considerations govern economic developments. Political considerations have also played a part in the country's educational

policies. It is estimated that between 25 percent and 40 percent of the federal and regional recurrent budgets are being applied to education. Measured against the nation's lagging economic growth rate, this is probably an over-investment in education. Politically, it is perhaps impossible to have done otherwise. An obsession with university level education, resulting from pressure from students and parents as well as prestige demands to match other African nations, has led to a skimping on middle level education for those requiring practical, technical skills. Similarly, the widespread provision of primary education (except in the near-feudal Northern region, where the target for 1968 is to have 28 percent of the children enter primary classes) compounds the government's spreading unemployment problem as each year thousands upon thousands of dispirited school leavers are faced with the choice of returning to grubby toil on their peasant farms or joining the ranks of the unemployable. In the Eastern region alone, there are some 60,000 unemployed primary school leavers out of a total regional population of 12,400,000, and 10,000 of them are added to the ranks each year.

Political considerations account for the temptation to invest the country's development money in more showy projects (fancy hotels, imposing government buildings, telecommunications centers) and in unnecessary consumer industries rather than in more productive ventures. And the ever-present political factors also help account for the fact that many of the government's own agencies, such as the Ministry of Economic Planning and its Manpower Board, have a limited role to play.

II. Manpower Needs--Projection

In an emerging nation the educational program should advance step by step with the country's manpower requirements and both, in turn, should move forward only in conjunction with the development of the nation's economy. In Nigeria's case, it is difficult to document evidence of cooperation among any of these three components of growth. There is, in fact, a serious lack of coordination in the planning efforts and the use of statistics by both the federal and regional governments. As one American (resident) economist said: "This is a country which talks planning but doesn't engage in it."

In 1959 Professor Fred Harbison of Princeton University was commissioned to estimate Nigeria's requirements for high-level manpower, and his calculations, which were admittedly no more than guesstimates and were not based upon a manpower survey, were incorporated into the Ashby report of 1960, which, in turn, set the long-range sights for Nigerian education. Although these manpower calculations were inadequate, and although the circumstances under which they were made have radically changed, these manpower estimates have been widely used in Nigeria for educational planning purposes right up to the present. This report, however, attempts to utilize later calculations.

The most accurate manpower survey possible would be worthless, of course, unless a mechanism existed to bring its findings to bear upon government policies. In Nigeria, although such a mechanism appears to exist, it is largely inoperative.

The Manpower Board was approved by the National Economic Council, composed of the federal Prime Minister and the four regional premiers, as far back as September, 1960, but it did not hold its first meeting until December, 1962. Set up within

the Federal Ministry of Economic Planning, it was to meet under the chairmanship of the permanent secretary of the Ministry of Economic Planning. It is now headed by Dr. T.M. Yesufu.

The permanent secretary of the Ministry of Economic Planning serves as secretary of the NEC, which, however, meets only twice a year, and is mainly a political forum where the prime ministers argue the pros and cons of new factory locations and construction projects. The Manpower Board also reports to the secretariat of the NEC, called the Joint Planning Committee, which is composed of the permanent secretaries of the prime minister and the premiers, and the permanent secretary of the Ministry of Economic Planning also serves as secretary of the JPC. Despite this seeming coordination through the many hats worn by the permanent secretary of the Ministry of Economic Planning, the JPC is little more effective than the NEC. In neither body is there adequate consideration of the implications of the manpower surveys conducted by the Manpower Board. Its influence, in fact, is minimal. Its reports are circulated--and not acted upon. (Until quite recently, the Board existed in strained relationship with the Ministry of Education, apparently due to a jurisdictional dispute over the locus of the Board, and there is some evidence that cooperative planning between the two bodies may be some time in coming.)

In addition, experience has shown that the only major manpower survey, based on the position as of January, 1963, raised such serious questions about both its methodology and its conclusions that its findings--first exposed to criticism by a body of international manpower experts in March, 1964--have literally been discarded. A new manpower calculation, based on revised projections, has been promised for October, 1964, when the Board is expected to have its next meeting. In addition, a major survey, similar to the 1963 survey, is promised for 1965 or 1966, in order to provide a basis for long-term forecasts.

In the meantime, however, the experts attached to the Nigerian Manpower Board, have reworked the Board's most recent calculations to arrive at the following projections for senior and intermediate manpower:

Senior Category (excluding teaching and research staff and doctors)

1963 Employment and Vacancies

Nigerians	8,151	
Expatriates	4,907	
Vacancies	2,403	
10 percent allowance for non-response	<u>1,546</u>	
		Total 17,007

1968 Employment

1963 employment and vacancies	17,007	
40 percent growth over 1963	6,803	
Replacement needs by 1968 (15 percent of corrected employment in 1963)	<u>2,156</u>	Total 25,966

1970 Employment

156 percent of '63 demand	26,531	
Replacement needs by 1970 (21 percent of corrected employment in 1963)	<u>3,016</u>	Total 29,547

Doctors

Employment and vacancies in 1963	885*
Demand in 1968 (Lower Target (1:10,000 ratio) (Upper Target	6,153
Demand in 1970 (Lower Target (1:10,000 ratio) (Upper Target	6,371
	6,405
	6,623

*(Only those employed - excluding private practitioners)

TRAINING REQUIREMENTS

Lower Target = Increase in employment and replacement needs

Upper Target = Increase in employment and replacement needs and
Number of expatriates.

	Lower Target	Upper Target
Additional requirements by 1968	11,602	16,509
" " " 1970	15,183	20,090
Required out-turn p.a. by 1968	2,320	3,302
" " " " 1970	2,169	2,870

OUT-TURN OF SENIOR CATEGORY 1964-68

Occupations other than doctors	7,007
Doctors	278

Total 7,285

SHORTFALL IN OCCUPATIONS OTHER THAN DOCTORS

Lower Target	11,602	-	7007	=	4,595
Upper Target	16,509	-	7007	=	9,502

(NB: Shortfall in the case of doctors cannot be worked out as their total number including private practitioners is not known.)

University Intake in 1964 (including Doctors) = 1,855

Likely University Intake per year in 1970 = 3,000 (10,000 ÷ 3)
(approximately)

Required out-turn per year in 1970: Lower Target = 2,169
Upper Target = 2,870

In 1964 the out-turn from the Nigerian universities was about 800; those completing higher education overseas was about 1,300, giving a total of about 2,100.

The above analysis shows that the existing universities will be able to meet the requirements of Senior Category personnel. Planning should consist mainly of diverting the right number of students to the right fields of study.

Intermediate Category (Excluding teaching and research staff)

1963 Employment and Vacancies

Nigerians	42,107	
Expatriates	2,056	
Vacancies	4,604	
10 percent allowance for non-response	<u>4,877</u>	
		Total 53,644

1968 Employment

1963 employment and vacancies	53,644	
60 percent growth over 1963	32,186	
Replacement needs by 1968 (15 percent of corrected employment in 1963)	<u>6,624</u>	
		Total 92,454

1970 Employment

184 percent of '63 demand	98,705	
Replacement needs by 1970 (21 percent of employment in 1963)	<u>10,202</u>	
		Total 108,907

TRAINING REQUIREMENTS

Lower Target = Increase in employment and replacement needs

Upper Target = Increase in employment and replacement needs
and number of expatriates.

	<u>Lower Target</u>	<u>Upper Target</u>
Additional requirements by 1968	43,875	45,931
" " " 1970	60,328	62,384

OUT-TURN OF INTERMEDIATE CATEGORY 1964-1968

15,443

SHORTFALL IN INTERMEDIATE CATEGORY, 1968

Lower Target 43,875 - 15,443 = 28,432
Upper Target 45,931 - 15,443 = 30,488

The analysis shows that the intermediate category as a whole
is the critical area for manpower availability.

INTERMEDIATE CATEGORY (Excluding teaching and research staff
and disciplines which are not required to be trained at
technical institutes, e.g., junior managerial and admin-
istrative staff, nurses and midwives, journalists, actors
and musicians, library assistants, cashiers, bookkeepers
and storekeepers, salesmen and insurance workers, statis-
tical assistants, accounting and audit assistants)

1963 Employment and Vacancies

Nigerians	23,083	
Expatriates	1,423	
Vacancies	2,701	
Allowance for non-response	<u>2,721</u>	
		Total 29,928

1968 Employment

1963 employment and vacancies	29,928	
60 percent growth over 1963	17,957	
Replacement needs by 1968 (15 percent of corrected employment in 1963)	<u>4,043</u>	Total 51,928

1970 Employment

184 percent of 1963 demand	55,077	
Replacement needs by 1970 (21 percent of employment in 1963)	<u>5,661</u>	Total 60,738

TRAINING REQUIREMENTS

Lower Target = Increase in employment and replacement needs
 Upper Target = Increase in employment and replacement needs
 and number of expatriates.

	<u>Lower Target</u>	<u>Upper Target</u>
Additional requirements by 1968	24,971	26,394
" " " 1970	33,781	35,204
Required out-turn p.a. by 1968	4,994	5,297
" " " 1970	4,826	5,029

The actual output in training institutes during 1963 was 1,300 and the target of out-turn by 1970 is 5,000. If the target is fulfilled, the requirements can possibly be met but the present enrollment of 2,603 (an out-turn of about 1,300 p.a.) does not indicate that the target will be reached. Also, a proportion of those graduating from technical institutes prefer to go on to other educational institutions, usually universities, rather than take up technical employment.

III. Educational Capabilities: Present and Projected

There is no shortage of educational surveys of Nigeria: if anything, the country's education has been over-documented since 1960. Report has succeeded report with regularity. The most important of these are listed in the bibliography, but several of them have had a bearing on the development of the country's educational system. These include: 1) "Investment in Education," the report of the Ashby Commission (1960); 2) "Educational Development in Nigeria, 1961-1970," (the Archer Report); 3) "Report on the Development of Technical and Commercial Education in the Federation of Nigeria, 1961-1976," October, 1961, by E. Caunce and W.L. Cottier; 4) "Report on the UNESCO Educational Investments Programming Mission to Nigeria," (not released as of September, 1964; and 5) presentation by the Nigerian government and the report of survey mission on Nigerian education to the World Bank, 1964 (not to be released.)

In addition, the federal and regional (except for the relatively new Mid-West Region) ministries of education have collected and issued yearly educational compilations showing enrollment at primary, secondary and university levels.

PRIMARY EDUCATION

During the five years--1958-1962--primary education in Nigeria has been stabilized at slightly less than 3 million students. It is anticipated that total primary enrollment will remain at approximately that point during the future period covered by this survey.

Total primary enrollment for Nigeria 1958-1962 (Statistics of Federal Ministry of Education)

1958	-	2,544,701
1959	-	2,775,938
1960	-	2,912,618
1961	-	2,803,836
1962	-	2,834,010

While primary enrollment in the North will continue to increase, the introduction of fees in the East has caused a corresponding decrease in enrollment. In the North, projected plans call for the enrollment of 28 percent of the 6-7 age group annually. This means an increase in admission from 85,000 to 140,000 from 1962 to 1968 and an anticipated total enrollment in primary schools of 385,000 in 1962 rising to 770,000 in 1968. (These population figures, as with all others used in this report, may have to be revised in the light of the official census announced as of August 30, 1964.)

To the contrary, in the East, with the increasing of fees, anticipated enrollment in 1968 will be only 1 1/4 million as against the Archer estimate of 1 3/4 million. There is a dropout of approximately half by Standard III when the payment of fees begins. In addition, the eight year program of primary education has been reduced to six.

Primary education has been free in the West since 1955 and the Region appears to be able to bear the cost.

Almost all reports speak of the high wastage in primary education resulting from high drop outs and poorly prepared teachers. The financial load placed on all regional governments has been high and reference is often made to the fact that much of the money could be better used in economic development, upgrading teachers, secondary schools, etc.

A basic assumption that we can make, however, is that not much will be done about this problem in the foreseeable future. Free universal primary education is an emotional and political issue. Consequently, the wastage and expenditure must be accepted as a political and social cost as long as Nigeria

maintains a democratic government.. It is also apparent that no recommendation of this committee can make much of a difference in regard to this problem.

Since the number presently leaving primary school and receiving the Primary School Leaving Certificate is adequate for the number of secondary school places available at present and in the foreseeable future we might accept the present system as that of the "survival of the fittest." Therefore, this committee should not consider any programs of assisting primary education (teacher training excluded). The possible exception might be the development of an examination system that could help assure that intellectually capable students do move upward to secondary school.

Concentration should be on secondary education where the need is much greater and which would assure the best and proper use of those enrolled in secondary schools.

SECONDARY EDUCATION

Secondary school development appears to be relatively satisfactory with the exception of the shortage of well-trained

teachers. Two other problems stand out. One is that of science education (teachers and equipment) and the other that of the scope of the secondary schools.

The report of the UNESCO Educational Investments Programming Mission had the following to say about secondary education in the three regions and the federal district.

North: Archer estimated an intake rising from 1,600 in 1960 to 7,400 in 1968 while the total numbers of secondary students will go up from 5,300 in 1960 to 26,900 in 1968. He anticipated a rise in the number in Sixth Forms from 50 in 1960 to 660 in 1968. Five and a half million pounds has been budgeted in the plan for this, three-fifths of which will come from the government and two-fifths from voluntary agencies. Since in the North as in other areas voluntary agencies do not receive any government support until the program has been going for five years, during the period of the plan little of the government money will be needed to support the expansion by the voluntary agencies.

East: Archer estimated that a secondary school intake of 13,000 by 1966 and 14,400 by 1968 would allow the East to make a reasonable contribution to the national target. This apparently is the same conclusion as that of the Eastern Ministry of Education. This will imply a rise from 6,800 in 1962 to 14,000 in 1968. This means a doubling of enrollment while the number of Sixth Forms will be trebled. Apparently the Eastern Region will not have great difficulty financially in reaching this figure. The region has gone from 84 secondary schools in 1960 to 290 at present, and plans for 300 in 1967.

West: It is hoped to raise the enrollment in secondary grammar schools from 31,500 in 1962 to 51,800 in 1965 and 71,600 in 1968. The total number of schools is to be raised from 192 to 258.

The number of schools for Sixth Forms is to be raised from 18 to 42 and the government will provide up to £ 13,500 of the cost in each school.

Federal: Archer estimated that the minimum Ashby target had already been well surpassed by 1962 when about 13 percent of the primary school leavers in Lagos were passing into secondary grammar schools. For the future he assumed the figure of 10 percent. The Lagos grammar schools provide places for pupils from other parts of the country, who account for about a third of the total enrollment. A sum of £ 515,000 is to be spent on Sixth Form development in order to enable 330 pupils to enter the Sixth Form each year in government and voluntary agency schools. A further project designed to provide 19 secondary grammar streams is estimated to cost £ 645,000. At present the secondary grammar schools in Lagos have an average enrollment of only 245 pupils and should be expanded.

The UNESCO Commission also made reference to the important need for a widening of the scope of the secondary schools in Nigeria. Referring to the desperate shortage of well-trained clerks, bookkeepers, cashiers, and typists, it strongly urged that the secondary schools be responsible for most of the training of these people. "The secondary schools must play a major part in making good the shortage, although specialized commercial institutions may often be responsible for the final course training."

"We have recommended that foreign aid should be sought in the near future with some schemes for secondary education that are reasonably well-advanced. Others may be put forward later.

"We would lend strong support to the proposals for extending the scope and improving the quality of secondary education throughout Nigeria. In the North the need is particularly acute: even the new plan provides places for only 2½-3 per cent of the 13 year olds."

Vice Chancellor Dike of the University of Ibadan, in a paper prepared for the meeting of the National Manpower Board, spoke very strongly of the need for science education in the secondary schools as well as in the universities. "The basic problem, however, is one of lack of balance between the humanities and the sciences; and this problem remains largely unsolved. Indeed we seem to be caught in a vicious circle. The high proportion of admission to liberal arts rather than the sciences in our universities reflects the high proportion of students taking non-science subjects in the secondary schools. And partly because the universities are not producing enough science teachers, the secondary schools cannot expand

their facilities for science teaching as rapidly as the situation demands. Another element in the problem is the availability of laboratory equipment. Because of the high cost of equipment many of our secondary schools -- especially those established by private agencies -- simply cannot afford the expense of building and equipping laboratories."

In discussions with Dr. Stephen Awokoya, Permanent Secretary of the Federal Ministry of Education, the following comments were made about Sixth Forms. The number of Sixth Form leavers has been increasing at the rate of 50 per cent per annum for the last three years. He expects that the rate of increase may taper off a bit but that the total number will continue to go up significantly for the next four or five years. He is reasonably certain that the supply of students to the five Nigerian universities for the next five or six years will be high. Thus, they will be able to select students for admission, and they are now making some selection among those qualified. On secondary education he mentioned that expansion was halted in Lagos because of the high cost of building. Three million pounds are required for secondary school buildings alone, two million pounds for equipment, and seven million pounds for boarding facilities. He indicated that this was an area where external assistance would be very helpful.

Awokoya pointed out that the secondary school system inherited from the past has been inadequate to prepare Nigerians for middle-level responsibility. This is partly because of a tradition of grammar school education. Parents still tend to want it for their children to the exclusion of anything else.

Jacob Agwu, principal assistant secretary in the political office of the Premier, Eastern Region, commented about secondary schools. He emphasized the need for middle-level technicians and engineering, agriculture, etc. He refers to these as occupying the inspectorate level. He believes the grammar school bias must be shifted to change the motivations in interest of students.

Another problem that affects both secondary education and of course university education is English language competence. Several people have advocated a refresher course at the beginning of the university experience. But this is unacceptable to Nigerians as an indication of a deficiency.

In the Eastern Region Dr. Imoke, the Minister of Education, also emphasized the need for science emphasis. Imoke emphasized the shortage of science and mathematics teachers and equipment. Bottlenecks here exist in shifting emphasis from classical academic subjects to science, mathematics bias.

As part of Nigeria's secondary school system there were (as of 1962) 29 commercial schools and 685 modern schools. Secondary commercial were found in the Eastern Region and in Lagos and secondary modern in the Eastern and Western Regions and Lagos.

Enrollment - Secondary Commercial		Secondary Modern	
2,817	- Lagos	880	- East
4,209	- East	110,283	- West
<u> </u>		708	- Lagos
7,026	Total	<u> </u>	Total
		111,871	Total

UNIVERSITIES

In 1948, as the result of a British study of higher education needs in West Africa, University College was established at Ibadan, in what is now the Western Region. Set up in a special relationship with London University, which granted its degrees, Ibadan by 1963 became an independent, full university, and began to confer its own degrees in 1964. Ibadan is a federal institution.

In October, 1960, the influence of Nigeria's U.S.-educated Governor General (now President), Dr. Nnamdi Azikwe, was instrumental in founding a new University of Nigeria at Nsukka, in the Eastern Region. Located in the countryside, 40 some miles north of the regional capital, Nsukka is

sponsored by Michigan State University and embodies some of the U. S. land-grant college philosophy. In spite of its name, this is a regional university.

In quick succession, three additional universities were established -- the new University of Lagos, a second federal institution; the regional university of the Western Region, the University of Ife; and the new regional university serving Northern Nigeria, Ahmadu Bello University, formed by incorporating several existing educational institutions in the North.

The Ashby Commission had recommended four strong universities, and an enrollment of 7,500 by 1970, based on the estimates of needed high-level manpower prepared by Professor Harbison. Subsequently, as a result of the Archer report, the Nigerian Government raised the manpower targets and decided on a total university enrollment of "at least 10,000" by 1970.

As the new Harbison calculations make clear, adding the present number of Nigerians who return home after obtaining university degrees overseas, the total number of available university graduates will more than meet the estimated

demand within Nigeria for the next few years. In fact, a surplus of graduates can be expected in certain disciplines, ranging from a considerable excess number of lawyers to a slight surplus of civil engineers. Shortages will continue in certain professions -- medicine, mechanical and electrical engineering, etc. -- so that the main problem facing university education is to direct or attract students into the desirable (from the national viewpoint) fields of study.

Assuming that the economic factors on which Professor Harbison has based his statistics remain firm, two questions then remain to be analysed. 1) Can the universities meet the targets of graduates that they have set and, if not, why not? 2) Will the university distribution be in the proper order?

CAN THE UNIVERSITIES MEET THE TARGETS: OUT-TURN FROM SECONDARY SCHOOLS

There is every indication that the secondary schools will be able to meet the total entry needs of the universities for the next six to eight years. The increase in the number of secondary grammar schools and Sixth Forms assures this. The Federal and Regional governments' commitments to secondary education appear fairly firm. Even with some falling off in capital investment, there will probably be enough students to

fill available university space, which also will expand less rapidly.

There might be difficulty in preparing enough students with a science background to meet the proportions in pure and applied science set by the Universities Commission.

The 1962 statistics indicate 568 passes in two or more subjects for the Higher School Certificate and 1,264 passes at A level for the General Certificate of Education for a total of 1,832. In 1961, 1,338 candidates qualified.

Mr. Awokoya's conclusion -- of an adequate supply of Sixth Form leavers to enable the universities to take in enough qualified students -- was also that of the UNESCO Commission in 1963.

In 1962 application to four of the five universities was as follows:

Ibadan	-	2,042	Nsukka	-	2,764
Ife	-	1,201	Lagos	-	925

Even accounting for duplicate applicants there appeared to be enough students for the spaces available without dropping present "standards".

FINANCES - RECURRENT AND CAPITAL

The Federal Government in 1964 (Sessional Paper #4 of 1964) accepted the following commitments for university financing.

CAPITAL AND RECURRENT GRANTS TO THE UNIVERSITIES
AND FEDERAL GOVERNMENT'S CONTRIBUTION

- (1) That it would provide the entire financial needs of the Universities of Ibadan and of Lagos;
- (2) That it would provide the three Regional Universities with 50 per cent of their shares of the capital grant of 17.63 million pounds;
- (3) That it would provide the Universities of Nigeria and Ife with 30 per cent of the recurrent grant of 30 million pounds.
- (4) That, in view of the fact that 75 per cent of the students of the Branch of the Nigerian College of Arts and Technology taken over by the Ahmadu Bello University came from outside Northern Nigeria whilst the North had not at present got as many students in the other Universities and that that was likely to be the position for some time to come, the Federal Government should provide the Ahmadu Bello University with 50 per cent of its share of the total recurrent grant of 30 million pounds in order to enable the Government of Northern Nigeria make available more funds for the provision of Sixth Forms in secondary schools and thus increase the number of potential university entrants in Northern Nigeria.

The financial commitment works out as follows:

Capital grants and recurring grants to Nigerian Universities recommended by the NUC to the Federal Government in response to Sessional Paper #4 of 1964.

I. University of Ibadan

<u>Year</u>	<u>Capital Grant</u>	<u>Recurring Grant</u>
1963-64	£ 1.2 million	£ 1.8 million
1964-65	1.0	1.9
1965-66	.750	2.0
1966-67	.750	2.1
1967-68	.830	2.2
TOTALS	£ 4.530 million	£ 10.0 million

II. Ahmadu Bello University

<u>Year</u>	<u>Capital Grant</u>	<u>Recurring Grant</u>
1963-64	£ 300,000	£ 425,000
1964-65	400,000	450,000
1965-66	500,000	500,000
1966-67	250,000	550,000
1967-68	250,000	575,000
TOTALS	£ 1,700,000	£ 2,500,000

III. Ife University

<u>Year</u>	<u>Capital Grant</u>	<u>Recurring Grant</u>
1963-64	£ 200,000	£ 180,000
1964-65	300,000	195,000
1965-66	200,000	210,000
1966-67	150,000	225,000
1967-68	150,000	240,000
TOTALS	£ 1,000,000	£ 1,050,000

IV. University of Nigeria (Nsukka)

<u>Year</u>	<u>Capital Grant</u>	<u>Recurring Grant</u>
1963-64	300,000	300,000
1964-65	400,000	330,000
1965-66	500,000	360,000
1966-67	250,000	390,000
1967-68	200,000	420,000
TOTALS	£ 1,650,000	£ 1,800,000

V. University of Lagos

<u>Year</u>	<u>Capital Grant</u>	<u>Recurring Grant</u>
1963-64	1,000,000	850,000
1964-65	1,000,000	1,000,000
1965-66	700,000	1,750,000
1966-67	600,000	1,200,000
1967-68	300,000	1,300,000
TOTALS	£ 3,600,000	£ 6,100,000

Proposal for contributions towards the capital and recurrent grants to the universities for the quinquennium 1963-1968 in £ million.

	<u>RECURRENT</u>					<u>Total Recurrent</u>	<u>Total and Capital</u>
	<u>1963/64</u>	<u>1964/65</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>		
Federal Govt. Share	3.555	3.875	4.22	4.47	4.735	20.855	34.259
Northern Govt. Share	.425	.45	.5	.55	.575	2.5	4.2
Eastern Govt. Share	.700	.77	.84	.91	.98	4.200	5.85
Western Govt. Share	.420	.455	.49	.525	.56	2.450	3.45
TOTAL	5.100	5.550	6.05	6.455	6.850	30.005	47.759

Enrollment targets accepted on the assumption of a 10,000 full time student enrollment by 1967-68.

Ibadan	3,112
Ahmadu Bello	1,694
Univ. of Nigeria	2,501
Ife	1,000
Lagos	<u>1,693</u>
TOTAL	10,000

It further accepted the Commission's recommendations "that priority should be given to the development of scientific and technological departments of the Universities; and that, of the student population of 10,000 recommended, 7,580 should be taking courses in pure and applied sciences in view of the shortage of qualified Nigerians in those fields of study."

The five universities in submitting their requests for capital and recurrent costs had requested £ 29.6 million to reach a goal of 12,500 by 1967-68. Then NUC pared the goal down to 10,000 and recommended £ 17.63 million, of which the Federal Government would assume responsibility for £ 13.5 million. The figure provided in the Federal Government's Six Year Development Plan is £ 14.6 million.

The expectation of the government was that the £ 17.6 million for capital investment could be secured from outside the country.

out much more capital.)

One other item. In a chart prepared for the National Manpower Commission titled "Estimated Enrollment and Out-Turn in Nigerian Universities 1963-1968" a very high wastage was indicated. Total enrollment for 1963-1968 for Ibadan, Nsukka, Ife, Lagos was estimated at 32,149 and out-turn at 8,319, broken down as follows (no figures available for Ahmadu Bello):

	<u>Enrollment</u>	<u>Out-turn</u>
Ibadan	13,505	3,387
Nsukka	15,036	3,411
Ife	1,195	904
Lagos	<u>2,413</u>	<u>617</u>
TOTAL	32,149	8,319

It is assumed that Ibadan will have 3,112 students in 1967-68. If that figure is added to those who have graduated from 1963-68 -- 3,387 -- there is a total of 6,499, leaving a wastage of approximately 7,000 or a little over 50 per cent. Reuben Frodin calculated the wastage at 85 per cent. The above figure would indicate no graduates for 1967-68. For Nsukka it would be 2/5 or 40 per cent. The figures for Ife appear disproportionate. This method of calculating wastage, moreover, is of questionable validity.

One indication of the possibility of "making do" comes from

the Minutes of Development Committee of the University of Ibadan (attached to call for meeting of the Development Committee, 23 February 1963).

"Present capacity of student halls of residence is 1,082 rooms for single occupancy plus 225 rooms for people with double occupancy; that is, 450 places, making total accommodations for 1,532 students. Under construction, additional double occupancy hall will add another 450 student places making total of 1,982 with some double occupancy. With certain refurbishing and additional lighting it may be possible to double up in all the single occupancy rooms which will add additional capacity of 1,082." (Total of 3,064 room accommodations. 1962-63 enrollment 1,705.)

UNIVERSITY DISTRIBUTION

The National Universities Commission recommended, and the Government accepted, the following distribution of students:

<u>Faculty</u>	<u>Enrollment</u>
Agriculture, Forestry and Fisheries	1,250
Pure Science	2,830
Veterinary Science	300
Medicine	1,000
Engineering	2,000
Arts	1,420
Others (Business, Social Studies, Management)	<u>1,000</u>
TOTAL	10,000

The proportions in which the main subject groups studied are represented are:

Arts	25.3 per cent
Pure Science	16.0 per cent
Technology	7.4 per cent
Medicine	8.5 per cent
Pharmacy	1.7 per cent
Agriculture	6.0 per cent
Social Studies	25.0 per cent
Secretarial Studies & Librarianship	<u>2.0 per cent</u>
TOTAL	100.0 per cent

There appears to be fairly universal agreement that, with the present state of economic growth and its uncertainties, two problems enter into student distribution among the various disciplines: availability of facilities and the relation to specific manpower needs.

The Commission in setting student ratios kept in mind the targets of high level manpower needs of Nigeria projected by Harbison. The heavy emphasis on pure and applied science is an effort to overcome the serious shortages in these fields. At present emphasis is in the Arts. This is so not only because of student preference, job availability (civil service) but also because it has been easier for the universities to emphasize the Arts. Science equipment and laboratories are very expensive, science faculty is difficult to secure and the secondary schools have not been turning out sufficient people

with a science bias.

In discussing the Ashby Report, and in particular the Harbison estimates, the UNESCO Commission made the following comment: "Errors in forecasting are not irrevocable to the extent that manpower is mobile. For this purpose it is desirable to ensure that a broad elementary training is provided and specialisation encouraged only at a later stage."

Despite serious political pressures, the National Universities Commission has attempted to confine expensive specialized programs to specific campuses to assure development in depth and to avoid any unnecessary duplication to assure maximum use of funds. Needless to say, it has not been completely successful in this. However, givers of external assistance efforts should support this approach of the NUC -- namely, that broad science training should be emphasized and specialization held off as long as possible.

If the Government is unable to meet the request for capital grants, the field that will probably suffer is science, because it is the most expensive. At this time we do not know where the cutback will be, with the exception of the delay in starting engineering at the University of Lagos.

SCHOLARSHIP PROBLEMS

While accurate figures are not available, there is a drop-out every year because of the inability of students to finance their education. The National Universities Commission in its report paid particular attention to the problem:

Every student's Representative group which we met during our visits to the universities expressed anxiety about the financial difficulties of private students in the university. At every university, we were urged to persuade the governments of the Federation, to increase the number of annual scholarship awards; and at the University of Ibadan, we were told that existing scholarship holders would be quite willing to accept a reduction in the value of their scholarships if only that would assist government to provide bursaries for a larger number of students every year. The Vice Chancellors are equally anxious about the increasing number of students who are obliged to discontinue their studies on financial grounds.

The Commission pointed out that a scholarship at home costs £ 250 and in Europe or America £ 600 per annum.

The Government, in response, accepted the recommendation that all of the governments make most of their undergraduate scholarships tenable in Nigerian universities.

Vice Chancellor Dike, in a paper prepared for the meeting

of the National Manpower Board, stated:

But, on the demand side, the number of students coming forward depends in part on the ability of private individuals to finance the education of their children and relatives. If there were a universal scholarship or loan scheme, which guaranteed finance to every student qualified for university education, the question would not arise. But there is no such scheme at the moment and as the number of students pursuing university education has increased, so the proportion of those enjoying scholarship awards has diminished. This problem came into sharper focus about a year ago, when some students (many in their final year) were asked to withdraw from the University of Ibadan for non-payment of fees. I believe that the problem will become even more acute in the future as the number of students increases.

The UNESCO Commission stated on this subject: "The second condition for ensuring full utilisation of the university places provided as well as for meeting the high level manpower needs of the country is that no student should be prevented from pursuing his studies for lack of financial support...Apart from other considerations, it is wasteful if university facilities provided at this cost of millions of pounds are not fully utilized for the sake of saving what may be much smaller sums on scholarships."

WILL THERE BE TOO MANY UNIVERSITY GRADUATES?

The question of whether there will be too many university

graduates for Nigerian needs is often raised by expatriates, foreign and international agencies assisting Nigerian education, and Nigerians. India is pointed to as an example of a country with a large, disaffected, unemployed group of intelligentsia that contributes to national instability.

Foreign businesses operating in Nigeria fear that a surplus of university educated people, unemployed, will force more rapid Nigerianization than can be efficiently managed.

Actually, present figures for university turn-out for 1968 would appear to be maximum. The cutback in capital grants will mean that the universities will not be able to expand as rapidly as they had contemplated, although there will be some expansion.

It can also be assumed that the only way a sufficient number of graduate teachers will be found for secondary schools and Sixth Forms is when university level positions in other occupations that pay better reach a saturation point and "professional" positions must be sought in other areas. As long as there is a need for university trained people for private enterprise, private enterprise will outbid educational institutions. We should, of course, be cognizant of the

financial effect the use of graduate teachers will have on the school system. They will have to be paid more than non-graduates, although, as in other Western countries, not as high as private enterprise, and this will up the cost of education.

J. E. C. Thornton, Secretary of the Bureau of External Aid in the Federal Ministry of Education, saw oversupply as possibly a quantitative problem but certainly not a qualitative one. He pointed out that the shortage of secondary school teachers can be alleviated by the use of university graduates and thinks this will come as government jobs fill up, particularly as graduates in the Arts who cannot secure ready employment in government or industry will go into teaching.

Jacob Agwu, in the Eastern Regional Prime Minister's office, indicated that it was an imbalance rather than oversupply -- i.e., too many students in Arts and not enough in science, engineering and agriculture.

A similar sentiment was expressed by Mr. Obi, in the Eastern Region's Ministry of Economic Development: in the aggregate there will not be too many, although maybe an oversupply of university graduates in certain fields and a very real undersupply in others.

In certain parts of Africa there is still a shortage of high level manpower, some of which at present is being supplied by Ghana. The same is true in East Africa. The countries of Africa that may receive their independence in the future are ones with a very low level of indigenous university graduates -- the Portuguese territories, South Africa, Southern Rhodesia. New universities are being planned for Malawi and Zambia -- both of which can use African academic staff. With imagination and flexibility in foreign assistance programs, highly trained Africans can be utilized more effectively and at lower cost than U. S. or British expatriates. The present U.S.-supported training program for refugees from Portuguese territories is recognition of the need.

TEACHER TRAINING

The success of the enormous education program upon which Nigeria is embarked rests upon improving the quantity and quality of the country's primary and secondary teachers. Neither the supply nor the caliber of teachers has kept pace with the astronomical growth in the school population, but as between quantity and quality, the latter is perhaps the more serious problem. Today more than 68,000--about 70 percent-- of the country's teachers are uncertified, untrained or probationary. According to the Manpower Board's tabulation, only 2,201--or about 22 percent--of 9,792 secondary school teachers are graduates.

The ratio of Nigerian to expatriate teachers should be considered in conjunction with the teacher training problem. Available statistics indicate the need to train Nigerian teachers at the secondary level especially in the Northern region. Of the 99,335 primary school teachers recorded in the 1962 Annual Digest of Education Statistics, all but 120 were Nigerians. These 120 were concentrated in the North and in Lagos. Among all of the Nigerian teachers, moreover, only two were graduates. At the secondary school level, however, approximately 15 percent of the teaching staff was non-Nigerian. And in the North, there

were more than twice as many non-Nigerian as Nigerian teachers in secondary schools. Any effort to Nigerianize the secondary level teaching staff in the North is complicated by the fact that the region has made a policy decision to accept non-Nigerian teachers in preference to teachers from other Nigerian regions.

Much better--and higher level-- teacher training colleges must be provided. As of now there are about 290 small training colleges spread throughout the country, with a total enrollment of 31,170 (1962) students. In addition, many of these small schools suffer from a shortage of skilled staff. About three-fourths of the primary teachers are deficient in English. In truth, given these drawbacks to primary education, it is a tribute to their determination that so many Nigerian youngsters get through and do as well as they do.

According to AID, Lagos, the estimated annual requirement for new teachers within the federation is 3,000 by 1972, in the following categories: post primary graduates (university degrees) 900; post primary non-graduates 700; primary teachers 1,400. In addition, the vast number of uncertified teachers must be upgraded.

It has been estimated from a preliminary sampling (according to AID, Lagos) that approximately 2,800 teachers and prospective teachers are eligible for post-graduate study.

Nigerian teacher training involves five categories, excluding those in trade and technical schools. Grade III teachers are those who have successfully completed primary school and a two year training course for elementary teachers at an elementary teacher training center (though in some cases trainees may also have spent a year in a preliminary teacher training center). Grade II teachers are those who have either successfully completed a) a primary school and four-year training course; or b) an approved secondary school course and two years of training; or c) two years additional training after practising as a Grade III teacher. The third level is the Grade I certificate teacher, i.e., those who have reached

a high standard in their Grade II course and have obtained endorsements to their certificate, often through obtaining passes in the GCE at ordinary level or through taking a specially advanced teachers' course. (There are some in-service training courses to help teachers improve their grades.) Grade III teachers may be employed in the lower primary schools; Grade II teachers in all classes up to the lower secondary; and Grade I teachers in any secondary classes, but in the upper classes only for such subjects for which their certificates are endorsed.

On the recommendation of the Ashby commission, the federal and regional governments have instituted so far six advanced training colleges for well-qualified, non-graduate teachers. The objective of these institutions, which offer the Nigerian Certificate of Education, the highest qualification below a university degree, is to produce teachers for secondary schools and training colleges (although some may take up specially responsible posts in certain primary schools). The basic course offered is of three years' duration for entrants with school certificate or with a Grade II certificate and teaching experience.

Professional training for the fifth category of teachers, graduate teachers, is undertaken by the university departments of education at Ibadan and Nsukka. These departments also take part in general educational training in their areas and to some extent coordinate the work of teacher training colleges. Ahmadu Bello, Ife and Lagos universities have not yet established full-fledged colleges or institutes of education.

At the present time, fewer than one-quarter to one-fifth of Nigeria's secondary teachers are graduate teachers. The chairman of the Manpower Board feels that the country should aim at a ratio of 50 percent graduate secondary teachers by 1968-1970, and feels confident that the country's universities can produce them. However, the aim is to increase the proportion of secondary teachers qualified in science and mathematics to 60 percent of the total from the present low ratio.

Staffing secondary grammar schools presents a special problem. The secondary grammar school offers a five year course for the W.A. S.C. or a seven year course for the H.S.C. in contrast

to the three year course, leading to no degree or special qualification, which is offered in the secondary modern school. Thus these schools are the principal source of candidates for the universities. The Ashby Report recommended that 50 percent of the teachers in Secondary Grammar Schools should be graduates and 50 percent well qualified non-graduates by 1970. By 1962, approximately 45 percent of the secondary grammar teachers were graduates, but only 5 percent of the remainder could be called well qualified non-graduates. More well qualified non-graduate teaching staff must be provided at the secondary grammar level.

In the federal territory (Lagos) there are only three teacher training colleges, with a limited enrolment of around 400.

Following an Ashby commission recommendation, the Federal Government authorized the development of a new Federal Advanced Teachers College, which opened at Yaba, outside Lagos, at the end of 1962. It offers the Nigerian Certificate of Education, the highest qualification below university degree, and is jointly sponsored by the Federal Government, the Ford Foundation, UNESCO and AID. The college now (1964) has an enrollment of 300 and will enroll 450 resident students and up to 450 non-resident students when fully developed. This institution, because of its location, may be absorbed by the University of Lagos to become the School of Education within that University.

The Western region has 98 teacher training colleges, which employ (as of 1961) 822 teachers and enroll 11,040 students. The region's plan is to increase enrollment in Grade II colleges from 6,300 in 1962 to 13,600 in 1968, according to the UNESCO survey. There is also a policy to abolish all Grade III colleges and to replace all untrained teachers.

Education authorities in the West believe that an output of some 600 non-graduate teachers per year will meet their needs (at present, however, the output is closer to 200 non-graduate teachers per year). They are unable to say when they will satisfy their needs for graduate teachers, partly because this depends on the field of study chosen by graduates and on making teaching salaries more attractive.

There are three non-graduate colleges of education in the western region. These provide three-year courses for those with the school certificate. One is supported by UNESCO, another by the regional government, and the third by AID on a contract basis with Ohio University. The planned output for the three is 600 per year.

Olunloyo College of Education, at Ibadan, run as a cooperative effort by the regional government, AID and Ohio University, opened in January, 1963 and offers a three-year course for both men and women. The total enrollment--as of 1963-1964--is 125 students; 63 were then in the second year of study, and 62 were first year students. Approximately 100 students were expected for the new class of 1965.

Olunloyo also offers (through Ohio University) region-wide in-service training for more than 3,000 teachers. In addition, this project also provides a program for the training of commercial teachers.

The Western region also provides 90 scholarship awards each year to qualified teachers to do graduate work in West African universities. The candidates are nominated by their own secondary and grammar schools.

The Eastern Region has a very large number of very small teacher training colleges. In 1961 it had no fewer than 158 training colleges, with 749 teachers and 11,765 enrolled students. The average had a staff of fewer than five and a student body of about 75. This was as a result of very rapid expansion--in 1955 the region had only 49 training colleges--brought on by the region's universal primary movement.

Shaplin contended. (1961) that the Eastern region had then reached the level of expenditure against which there was no recourse but to rule that there could be no further relative increases in educational expenditure. Any improvements that

took place had to be done by greater efficiency, reorganization and lowering costs.

The Dike Commission (1962) recommended that the region aim for fewer and larger teacher colleges, with enrollments of around 450.

The Eastern region accordingly planned to abolish its 96 Grade III teacher training colleges and 32 Preliminary Training Centers by 1964, and raise the number of Grade II colleges from 29 to about 50. An Advanced Teachers College was opened in 1963 at Owerri, with an intake of 150 students who possess the school certificate.

In the Northern region there is now an impressive total of 53 teachers colleges (early 1964), with a total of nearly 400 teachers and about 4,000 students enrolled. Roughly 25 of these are government schools and the remainder equally divided between Catholic and Protestant voluntary agencies. Most of them are small--the average has a staff of seven and enrolls fewer than 100 students. About 50 percent of the teachers are expatriates, mostly from Britain, the Commonwealth, and the U.S. Peace Corps.

The Northern region must make the greatest leap forward in teacher training, not only because the number of children in primary schools will be drastically increased but also because nearly two-thirds of the existing primary teachers are untrained. The region's target is to enroll approximately 829,000 students in the seven grades of the primary system by 1970 in contrast with only 316,000 enrolled in 1960.

Parenthetically,, a partial explanation of the seeming willingness of this region to engage in advanced educational techniques--closed circuit TV for its teacher colleges, language labs, team teaching, etc.--may be due to the fact that nearly all of the regional ministers and others of importance in the region were members of the teaching profession before they became politicians.

The basic course for primary teachers in the region has now been lengthened to five years (from three) and it now includes a substantial proportion of general education.

A Major project in the region is the expansion of 12 of the existing teacher training colleges and the creation of four new colleges, a project for which the Ford Foundation is to put up the initial funds for the staff with AID taking over after two years.

A nod should be given to the role played by the Peace Corps, particularly in the schools of the North. Without Peace Corps help, regional education authorities admit, some schools would have closed down. In some institutions, Peace Corps teachers form from 60 to 70 percent of the teaching staff, which is at times an unfair burden to put on newcomers who, in general, have had little teaching experience. At six regional colleges or secondary schools in the Northern region, there is a total of 61 Peace Corps staffers. As of 1963-64 there were some 370 Peace Corps volunteers teaching in all Nigerian universities, teacher training institutions and secondary schools.

TECHNICAL EDUCATION

In his manpower section of the Ashby report, Professor Harbison observed: "The conclusions to be drawn from these very rough and necessarily imprecise figures are these: Nigeria's most urgent need in the near future is for expansion of intermediate education." Almost five years later, the urgency--and the recommendation--still apply. The country suffers from an acute shortage of technically-trained manpower, in the sub-professional, managerial, technical assistant, foremen and craftsmen levels.

Nigeria, as a whole, still lags far behind other African nations in technical education. The Dike committee, reporting in 1962, found that for every 100,000 of population, there were 621 students in technical education in Ghana, 245 in Sierra Leone, 217 in Gambia and only 88 in Nigeria.

As another measure of this lag, it was discovered (by Michael Goldway, an Israeli investigator of education in Eastern Nigeria) that although the national budget allocated up to 40 percent to education, only 1.4 percent of the expenditure on education was allocated to vocational education, including handicrafts.

From the manpower predictions made, the Ashby commission advised that plans be made for post-secondary courses for technicians in order to achieve an output of some 2,500 per year by 1970. In his 1961 report, Archer doubted the country's ability to attain these figures and set the annual output of the country's technical institutes at 1,500. Later that year, however, the Federal Government--for reasons not explained--doubled the Ashby target and set the goal as 5,000 technicians per year, with an additional target of 50,000 for craftsmen

and artisans. Dr. Yesufu thinks the minimum requirement for technicians is 7,100 per year.

Cottier and Caunce estimated that to produce 5,000 technicians per year would require a student body of 23,000 and 15 technical institutes and a staff of 820 teachers (if commercial education were included, the staff would increase to 1,070). In fact, in 1961--when that report was prepared--Nigeria had 1,726 students in four technical institutes with a staff of 91, of whom 36 were Nigerians.

To provide the matching figure of 50,000 artisans and craftsmen--assuming that industry could provide for 10,000 annually--would mean from 90 to 300 trade centers, depending on size, and the provision of about 5,000 teachers and about 90,000 student places. Caunce and Cottier did not think a program of this magnitude possible for 15 or 20 years.

Coming back to reality, the actual enrollment in Nigeria's technical institutes in 1963 was 2,603. This includes those taking secondary school courses in technical institutes, full-time, part-time, evening and "sandwich" courses--i.e., between spells of employment.

In addition, somewhere in the neighborhood of 2,500 boys were enrolled in the various trade centers. (These schools give courses in motor mechanics, metal working, painting and decorating, plumbing, brick laying, etc.)

And finally, as many as 2,000 personnel are being trained each year--both as technicians and as craftsmen--in the various in-service training schemes run by private industry and the government corporations (see section on IN-SERVICE TRAINING).

The Nigerian Manpower Board has produced new estimates on the teaching staff required to service an enrollment total of 10,000 technical students in 1968, as follows:

TECHNICAL INSTITUTES

(Teaching Staff)

Actual Number employed in 1963 (Table 28)	=	95
Actual enrollment in 1963 (Table 28)	=	2,603
Existing Teacher - Student ratio	=	1:27
Estimated student population in 1968 = 2x5,000	=	10,000
Number of staff required in 1968 (existing ratio of 1:27)	=	371
Number of staff required in 1968 (ratio of 1:20)	=	500

Number of staff required in 1968 (ratio of 1:15) = 667

Assuming (Number of staff required in 1970 (existing ratio of 1:27) = 480
 the same (rate of (Number of staff required in 1970 (ratio of 1:20) = 662
 annual (expansion(Number of staff required in 1970 (ratio of 1:15) = 896
 as between 1963 & 1968

Replacement needs up to 1968 (15 percent of 95) = 14

Replacement needs up to 1970 (21 percent of 95) = 20

TRAINING REQUIREMENTS

(Increase in the no. employed and replacement needs)

	<u>1968</u>		<u>1970</u>	
	Total Requirement	Average Annual Requirement	Total Requirement	Average Annual Requirement
Using the ratio 1:27	290	58	142	58
Using the ratio 1:20	419	84	587	84
Using the ratio 1:15	586	117	821	117

The Federal Government's technical education projects include the Yaba Trade Center, outside Lagos; the Yaba Technical College; plans for a National Technical Teacher Training College; and the major contribution to a proposed Technical College to be run with the Eastern Region at Port Harcourt.

The target for the Yaba Trade Center is a minimum of 1,660 craftsmen and artisans per annum by 1972. The Yaba Technical College (for which Shell-BP contributed £ 500,000 as an independence gift) has a theoretical capacity of about 2,000 students, but only 900 are now registered because of an acute shortage of staff.

Technical education in the Western Region is centered at the Technical College at Ibadan. The college, non-residential, has places for 600 students but it has been short of both pupils and staff. The plan for 1965 is to have places for 148 engineering diploma students, 140 commercial and 60 engineering higher diploma students. The 1968 target is to have 500 students enrolled in a two-year sub-professional program in engineering and commercial subjects.

The region also has six trade centers, two of them private, which offer three year courses in the usual range. The intention is to cope with some 600 craftsmen per year.

This region also has a comprehensive secondary school, at Aiyetoro, which has a pre-vocational bias similar to the school at Port Harcourt.

The new Mid-West region, far behind on all educational plans, hopes to open a technical college in 1964-1965 at Auchi, which will offer at first two-year courses in engineering, geared to the rubber and timber industries of the area, and commercial courses.

In Eastern Nigeria the main technical installation is the new Government Technical College at Enugu, which will offer three-year courses in mechanical and electrical engineering and building, as well as business studies. This new school -- funds for which have recently been provided by Britain -- will incorporate the existing Technical Institute at Enugu, which for years has suffered from lack of staff and equipment. There is also a proposal to establish a similar Technical College at Port Harcourt.

There are (as of 1962) twenty-three trade and commercial training institutions in the region. One is the Government Trade Center at Enugu, which provides a three year course in ten different trades for 150 boys. This may be expanded and moved to the premises formerly occupied by the Government Technical Institute (now College). One, at Ahiara, where some 160 places are available in a trade center, is subsidized. The remainder -- which includes the outstanding trade school run by Shell - BP at Port Harcourt -- are unaided and voluntary.

There is a plan -- on paper only -- to create twelve trade schools in the region, which would give three years of general education (at the secondary level) plus two years of technical training. A similar paper plan exists for the provision of 12 agricultural trade schools at the same level.

This region has had a policy of introducing wood and metal work into the last years of primary school through nine handicraft

centers, each serving five to ten primary schools, to which boys from nearby areas attend for two hour periods each week. The region is now to expand this scheme by adding 12 handicraft workrooms at 12 elementary schools for non-residential pre-apprenticeship courses in woodworking and metal trades. The annual admission planned for each center would be 20, or a total of 960 trainees provided for at one time.

Technical education in the Northern region is centered in the Kaduna Technical Institute, where courses are provided mostly for sponsored students. Students spend time with their employers in between course periods. The Institute also provides general commercial courses. Some years ago a proposal was made to replace the Institute by a Polytechnic at Kaduna, which would ultimately provide for 1,275 students with an annual output of 300 technicians, 100 commercial students and 75 advanced level G. C. E. students.

In the North, the higher level training of craftsmen is done at three technical training schools (at Bukuru, Kano and Ilorin), where courses are tailored to the needs of each locality. The plan for 1967 is to have an annual total output from these three centers of a little more than 1,000 students a year. Most of the trainees in these technical schools come from the craft schools, a type of school peculiar to the North, which are now post-primary

schools offering a three-year course in drawing, wood and metal work to supplement general secondary education. The plan is to establish one such craft school in each of the 12 provinces of the North, so that by the end of 1964 it is expected that there will be a total annual output from them of some 700 pupils.

On August 14, 1964 the International Development Association (World Bank) notified Nigeria that IDA had approved a credit of \$20,000,000 for school construction and equipment (out of a total of \$30,000,000 requested). IDA intends to negotiate the precise project list with each of the regions, and the negotiations, to begin late in September, 1964, are expected to require at least four weeks.

From conversations with Nigerian education authorities, it is clear that the bulk of this loan will be used to strengthen technical education, teacher training and secondary education. Which projects will eventually be selected for approval will depend on negotiations with the IDA experts, but -- based on the submissions of the Nigerian government -- the following are the main projects to be considered:

Federal: National Technical Teachers Training College; sixth form development in Lagos, including a Federal Science School.

East: Technical College at Port Harcourt; Rural Science Center at Umudike; an Advanced Domestic Science Center at Aba; government

trade schools; government secondary schools; the Enugu Trade Center; expansion of science facilities in teacher training colleges and secondary schools.

Mid-West: Sapele Trade Center; Edo College; expansion of sixth forms in secondary schools; expansion of science facilities in teacher training colleges; provision of workshops for secondary schools.

North: Advanced Teacher Training College at Zaria; craft schools; technical training schools; secondary commercial schools.

West: expansion and construction of trade centers; Teacher Training College, Ibadan; home economics college; workshops and laboratories for secondary schools.

AGRICULTURAL EDUCATION

For a country with an economy so heavily dependent on agriculture (78 per cent of the occupied manpower) as is Nigeria, the nation has invested a comparative pittance in agricultural education. Although the need for sub-professionals in the agricultural field was urgently emphasized in the Ashby report (which estimated minimum requirements for 1970 as 200 annual outputs in agriculture and 100 in veterinary work), comparatively little has been done to meet the demand.

Although three out of every four Nigerians work on the land, agricultural education is not attractive to most Nigerians and even those who graduate from the country's agricultural schools do not necessarily end up on the land but more likely as teachers of rural science, plantation overseers, etc.

The Ashby report called for the education of 2,100 university graduates in the agricultural sector for the ten-year period, 1958-68, and a need for 4,000 in the intermediate category of training, including 3,000 agricultural assistants and superintendents and 1,000 veterinary assistants who would be, in effect, extension workers for the livestock-producing areas.

In an effort to meet the Ashby targets, the regional governments have set their goal as a ratio of one extension worker for each 2,000 farmers by 1968 (a ratio dictated by the poor education level of most farmers, communications and transportation problems, etc.) With an estimated 8,000,000 farmers in the country, this target will require approximately 4,000 extension workers trained at the agricultural assistant level and above.

Agricultural education, of course, includes the faculties of agriculture at Ibadan University, the University of Nigeria, the University of Ife and Ahmadu Bello University.

In the Eastern Region the main effort centers in the agricultural school at Umudike, which has been expanded to provide a crash program for training agricultural assistants, a total of 300 trainees per year, plus special courses for upwards of 80 agricultural assistants who have had experience in the field. The region thus hopes to meet its demands for field projects and to staff some extension work. The target for 1964-65 is to have 441 agricultural assistants for projects and 325 free to undertake extension work. For 1966-67 the targets are 508 and 499. The region also has plans to open 12 agricultural trade centers.

In the Northern Region training is centered in the Samaru and Kabba schools of agriculture, which offer two-year courses for agricultural assistants. The target for 1967 is to produce about 520 such assistants, on an annual intake of 90 trainees at Samaru and 40 at Kabba. In addition, Samaru gives a one-year course through which agricultural assistants, after at least one year's meritorious service in the field, can be upgraded to agricultural superintendents and agricultural superintendents (mechanical). The target for 1968 is for Samaru to have trained 120 of the former and 40 of the latter.

The region also uses Farm Training Centers--13 of which are now in operation--to train agricultural instructors (one grade lower than agricultural assistants), at the rate of 20 students annually from each center. This is a temporary measure to support the agricultural assistants during the early years of expanding extension program; after a period of years, the instructors will be upgraded, by in-service training, to agricultural assistants.

The region also operates a large number of farm institutes, vocational agricultural schools that give one year of training in modern agriculture to young primary school leavers so that they can become progressive farmers. The plan is for a total of 54 to be built, at the rate of 8 to 11 per year, before the end of 1968. Each will train 20 students annually; thus by 1968 they are expected to be training 1080 students annually.

Agricultural education in the Western region, apart from the BS degree level courses taught at the University of Ibadan and the University of Ife, centers on the Farm Settlements, cooperatives which consist of some 50 holdings each on plots of some 15500 acres. Farm institutes have been established to provide training for those going on to the cooperative farm settlements: each institute is scheduled to admit about 100 trainees annually for a two year comprehensive course in modern agriculture.

The plan is to have five such institutes in the region. At present, there are three in existence -- the farm institutes at Odeda, Ilesha and Ikorodu, which provide the equivalent to two-year vocational agriculture.

One of the original intentions behind the farm institute and farm settlement scheme was to absorb unemployed primary school leavers. They have made only the slightest dent in the problem: in the Western region alone only some 500 can be cared for.

The Western Region also has the School of Agriculture at Ibadan, which formerly offered a two year course but now gives a three year course (equivalent to the U.S. sophomore college year) to graduate agriculture superintendents. The School of Agriculture at Akure, provides a two year course, the equivalent of U.S. senior high school year. Related to this is the Rural Education College at Akure, which provides two-year teacher training in rural science.

IN-SERVICE TRAINING

Necessity has compelled both the private sector of industry and the government corporations to operate their own training schools in order to supplement the educational system's output of technicians, craftsmen and artisans. It is estimated that, in any one year, as many as 2,000 employees will pass through either long or short courses offered by these in-service training centers.

The main firms, government corporations and departments which provide such training are:

United Africa Company. In 10 years, since its founding in 1954, the company's school at Igbobi, near Lagos, has passed through more than 800 apprentices and trainees.

Niger Motors, Ltd. Owned by UAC. This firm employs 1,200, many of whom have been trained at the UAC's own schools in the motor trade.

Shell-BP, Port Harcourt. This first-class training school offers 54 positions each year for general craftsmen. So far, 205 have gone through these courses. As an indication of the school's reputation, in 1961 there were 9,960 applicants for the 54 openings; in 1962 8,965 applicants for 54 posts; and in 1963 more than 20,000 applicants for the 54 annual vacancies. (Over the three years, only three have dropped out.)

Lever Brothers. At Apapa, Lagos, this company (run separately

from UAC) is now in its 10th year of its own training courses, which extend to process workers, craftsmen and technicians.

Electricity Corp. of Nigeria. In Lagos, ECN operates its own training school, with a capacity of 60 craftsmen per year, and an outturn of 20 yearly.

Nigerian Ports of Authority. At Apapa, Lagos, upwards of 300 students are given training in sub-professional courses at the corporation's technical and craft training center.

Nigerian Chamber of Mines. About 50 boys are trained yearly for artisan-level work in the mines. However, coal is a declining industry and training is tending to taper off.

Nigerian Railway Corporation. This corporation provides training for about 150 apprentices yearly, in some 25 different trades.

Federal Ministry of Works and Subways. Provides for about 65 students in training at the technician level, plus another 60 at the trade level.

Ministry of Posts and Telegraph. This runs its own federal training school, in Lagos, to provide for about 400 technicians. Smaller schools exist in the regions.

In general, these private and government employers reported that there are serious deficiencies in the applicants who come in

for jobs after training at either Nigerian universities, technical colleges or trade schools. They all require up to two years of further apprenticeship on the job to give them the practical experience which they lack. Most of the graduates are "raw material," and require additional in-service training to be brought up to the requirements of their employers. Some improvement has been noted, particularly in the quality of trade center graduates (in the Lagos area, at least) in recent years: UAC, for instance, formerly gave three additional years of training to trade center graduates joining their staff. Now they give only two years additional training.

Similarly, some employers have been able to up-grade educational requirements for even their lowest jobs (due to the surplus of primary and secondary school leavers and graduates). Lever Brothers, at Apapa, now have some youngsters who have had a year of secondary school employed as process workers, the lowest grade, because no other jobs are available for them. For the past four years the company has not hired any recruits, even as sweepers, below standard six, and for the past two years the policy has been to hire for the lowest jobs only those who have gone beyond standard six.

One problem that stems from the generally-higher level of in-service training is that private firms and government bodies with training schemes of their own have trouble in keeping their trainees, some of whom are tempted away after training by attractive

offers from other concerns. This, of course, considerably raises the training costs per retained employee.

IV OVERSEAS STUDY

Nigerians started going overseas for study, particularly to Great Britain, long before independence and the volume is of such size and so relatively uncontrolled that it is extremely difficult to get a measure of the flow. Estimates of the number of students in British institutions, obviously no more than personal opinions, ranged from 7,000 to 15,000, and one as high as 20,000.

In any event, overseas study obviously constitutes a very important source of high-level manpower. Nigerian officials, educators, and representatives of foreign governments and other foreign interests have varying, and sometimes rather deeply felt, convictions on the proper use of foreign study to serve Nigeria's needs.

For purposes of description, overseas scholarship opportunities can be grouped within three broad categories:

1. Federal and Regional
2. Commonwealth Scholarships
3. All others

The Federal Scholarships are the responsibility of the Scholarship Board in the Federal Ministry of Education. This Board also handles all Commonwealth Scholarships. Regional Scholarships are entirely the responsibility of the regional governments. Scholarship from all other overseas donors are handled by the Bureau of External Aid in the Federal Ministry of Education. This Bureau was established, with the assistance of the Carnegie Corporation, to coordinate all matters relating to external assistance to education in Nigeria.

With the different motives of the federal and regional governments and the variety of donor nations, a certain amount of interest conflict is inevitable. In an effort to make most effective use of indigenous facilities and external aid, the Nigerian government has developed machinery for the selection and placement of students. In a paper prepared for the Nigerian Institute of International Affairs, Donald Eberly, then the undersecretary in the Bureau of External Aid, described the overall goals of the scholarship program:

"We want the scholars to pursue those courses of study which are consistent with the manpower requirements of the nation...."

"We want the products of overseas scholarships to be, in the short run, supplementary, and in the long run, complementary to the products of local universities...."

The machinery to carry out such aims involves channeling all offers of overseas scholarships through the Federal Ministry of External Affairs. After the political implications of the offer have been cleared, the Bureau of External Aid processes the offer from the educational point of view; clarifying the conditions of the award such as timing, level and field of study with the donor. The secretary of the Bureau, J. E. C. Thornton stated that his department had the confidence of the regions and also served the National Universities Council in coordinating assistance in the field of education.

The following advertisement in the Sunday Post of August 30, 1964 gives a concise picture of the functions of scholarship programs at present:

OVERSEAS SCHOLARSHIPS--1965

POLICY: It is the policy of the Government of the Federal Republic of Nigeria to accept scholarships outside Nigeria at institutions of higher education that will provide supplementary facilities to those available in this country and which will support its high-level manpower policy.

FIELDS: in support of this policy, Overseas Scholarships are expected to be available in all branches of study at the post-graduate level, and primarily in the following fields of study at the undergraduate level:

Anthropology	Medicine
Archaeology	Metallurgy
Architecture	Psychology
Dentistry	Science
Engineering	Sociology
Foreign languages	Statistics
Mathematics	Veterinary Science

APPLICATIONS: Application forms may be obtained from the Secretary, External Aid Bureau, P.M.B. No. 12013, Lagos, or from the Secretaries of the following five Scholarship Boards.

The Secretary,
Scholarship Board,
Ministry of Education,
Ibadan.

The Secretary,
Scholarship Board,
Ministry of Education,
P.M.B. 1067
Enugu

The Secretary,
Scholarship Board,
Ministry of Establishments
& Training
P.M.B. 2033
Kaduna.

The Secretary,
Scholarship Board,
Ministry of Education,
Benin-City.

The Secretary,
Federal Scholarship
Advisory Board,
Ministry of Education,
P.M.B. 12573,
Lagos.

Instructions on the completion of the applications are contained on the forms. Completed applications are contained on the forms. Completed application forms must be send direct to the Scholarship Boards to arrive 10th October 1964.

BASIC QUALIFICATIONS: Candidates for under-graduate awards should have, or expect to receive by June 1965, a Higher School Certificate of Education (Advanced Level) or the equivalent. Some candidates with good results in the West African School Certificate or G.C.E. (Ordinary Level) may be considered.

Candidates for post-graduate awards should have, or expect to receive by June 1965, a Bachelor's degree or its equivalent.

NOMINATION AND SELECTION: Candidates will be nominated for overseas awards on the basis of the quality of their academic records, level of education, fields of study, preferred countries of study, referees' reports, financial resources, and other relevant information. Final selection will, of course, be made by the donor country or agency offering the award, in co-operation with the educational institution where the award is tenable.

SECRETARY,

External Aid Bureau,
P.M.B. 12013,
Lagos.

From among those who respond to these offers the Bureau of External Aid can form a reservoir of qualified students from which it can nominate lists for specific programs with a minimum of duplication. Since such programs as ASPAU deal directly with the Bureau, there should be no difficulty in terms of relating the opportunities to Nigeria's needs. Despite the intentions of the African-American Institute to only take students in fields not adequately available in Nigeria, there is widespread criticism in Nigerian circles that

ASPAU in fact removes "the cream of the crop", thereby weakening indigenous institutions.

The statement of J.W.V. Chamberlain, acting chief inspector of Education in Northern Nigeria, that "Nigeria has too many Universities chasing too few qualified students able to pay their fees" is characteristic of testimony in this respect. Although it is difficult to get accurate statistics to assess such a statement, there is considerable evidence which indicates that as much as 30 percent of the students accepted by Nigerian Universities fail to raise the required fees. Clearly students' preferences for study overseas and their unwillingness to work on campus in Nigeria towards their bursaries are factors which cannot be ignored, but until Nigeria's own Universities are operating at maximum efficiency, outside aid should make every effort not to delay this development.

J. Newton Hill, director of the A.A.I. office in Lagos was sensitive to criticism of ASPAU's role and pointed out the increasing emphasis on meeting manpower needs and shifting to post-graduate study. The African Graduate Fellowship Program (AFGRAD) is divided between the Liberal Arts (supported by the State Department through UNESCO) and the Sciences (supported by AID through

the African American Institute). While ASPAU took 57 from Nigeria this year, AFGRAD will only take 50 students from all Africa, of whom approximately 12 will be from Nigeria.

Although Hill did not have precise figures, he estimated that 50 percent of the ASPAU students had passed Higher School Certificate. In answer to the "cream of the crop" argument, he stated that at least 40 percent of ASPAU's students could not have been admitted to such Nigerian Universities as Ibaden and Ife.

In line with the policy (as implemented by the Bureau of External Aid) of building up the local institutions first, no students are supposed to accept ASPAU who have been accepted by Nigerian Universities. Mr. Hill acknowledged that there had been cases of this happening in the past, but stated that he had not seen evidence of it this year.

Of the 57 students offered scholarships by ASPAU none had refused this year although Hill described several instances in previous years. Several had turned down ASPAU scholarships in favor of acceptances by institutions in the U.K. or in West Germany and one even took a scholarship under the AID participant program. Hill was hopeful that such duplication was being eliminated by the Bureau of External Aid.

Another category of refusals has been a small number of students who were unwilling to attend small U.S. colleges, most of them in the south, to which they had been accepted.

The figures from Nigerian universities on their acceptances, refusals, drop-outs, etc. are apparently very difficult to obtain. Evidently the universities are very reluctant to release these figures because many of the students who are unable to pay their fees are kept on by the universities on a part-time or "sandwich" course arrangement, thus lengthening their course from three to five or six years. Also, universities are apparently hesitant about releasing information on the number of students forced to study on a part time basis, for fear that they may compare unfavorably with other institutions.

Hill reiterated the determination to adapt ASPAU closely to Nigeria's needs. He affirmed that all 57 of the 1964 group were studying fields approved by the national Manpower Board, but recognized that this in no way indicated an actual commitment to a specific career. Since the Bureau of External Aid advertizes the scholarships by approved fields, students quite naturally limit their applications to these fields. This degree of slippage did not bother Hill very much however as ASPAU is primarily an academic program, giving study opportunity to those who otherwise would not have continued, rather than a training program for specific jobs.

Hill predicted that ASPAU would decline as AFGRAD rises in the next few years, but he does not envisage AFGRAD becoming

numerically larger than ASPAU within the foreseeable future.

Of the 63 Nigerians graduating in 1964, only 6 are returning to Nigeria. Some of the remaining 57 are aided by AFGRAD (the AAI graduate program), while the Nigerian government is supporting others. Hill acknowledged that a strong motive behind the Nigerian

emphasis on getting advanced degrees was due to a widespread feeling in Nigeria that the American first degree was inferior to the African or British degree. Nigeria is at the opposite extreme from Tanganyika in this regard, for while Nigeria wanted masters' degrees, Tanganyika wanted returnees.

USIS has discontinued its general scholarship ("supplementary grants") program in Nigeria. This is due to the lack of enough qualified students in recent years and the fact that ASPAU and AID offered so many others. However, the Department of State leaders and specialists (short term) grants are continuing. The Embassy submits a list of potential leaders and specialists to the Ministry of External Affairs which in the past has cleared most without difficulty. Recently, however, the Ministry of External Affairs has been proposing its own list and is so balky in processing the Embassy's list that the deadline may be passed. In FY64 there were 12 Leaders and Specialists from Nigeria.

Carl Pearl, the U. S. Consular Officer in Lagos, estimated that of the roughly 1,500 Nigerians studying in the U. S., about one third were privately sponsored and that one half of these were in technical and vocational (non-degree) institutions. The United States requires that all students show proof of sufficient financial support for at least one half year as well as at least one half year's expenses which must be deposited in the U. S. before a visa will be issued.

As suggested above, off-the-cuff estimates of the number of Nigerians in Great Britain varied from 7,000 to 20,000 and since many of these individuals traveled on work permit visas, it is difficult to determine their actual status as students. British sources list 8,600 Nigerian students registered in formal courses of study, in the universities, in technical and vocational institutes and in other post-secondary programs. The Nigerian Government has a policy of not making public any information concerning the number of students sent to various countries, so the data will be extremely difficult to compile.

The stated purpose of the Federal and Regional Scholarship Boards is to provide overseas scholarships in fields not available locally and to support local students of particular merit. However, there is evidence that scholarships have been awarded on the basis of personal and political factors, and that little attention is paid to relating the scholarships to manpower needs.

The secretary of the Federal Scholarship Board described the three categories of Federal awards:

- 1) about 40 secondary scholarships per year were given, mostly in Lagos.
- 2) about 800 University scholarships per year and
- 3) roughly 120 post-graduate scholarships per year were given.

After advertising the scholarships in The Gazette, the Scholarship Board screens the applicants in accordance with the broad guidelines set by the Manpower Board. These manpower priorities are not narrowly defined and seem to include all areas of study except the arts and humanities.

It appears that the operation of the Federal scholarships is fairly smooth but that the administration of the Commonwealth Scholarships is less organized. The numbers of Commonwealth Scholarships being offered and accepted is uncertain. Last year, for example, the United Kingdom offered 45 scholarships, but of the 52 nominated by the Scholarship Board, only 33 finally went to the United Kingdom. This wastage was partly due to students applying for several scholarships and partly because the UK refused some of those students nominated.

The secretary of the Scholarship Board in the Federal Ministry of Education is responsible for follow-up and communicating with students both in Nigeria and overseas. However, it appears that the recovery aspects of the Federal Ministry is not yet effective. To remedy this the Federal Ministry of Education is setting up a Registry of Students. Mrs. Odesanya, who recently returned from a three month AID participant training tour on manpower developments in the United States, is in charge of the Registry at present. As of September 1964, several statisticians were coding the returns of the forms which were sent out to every post-secondary student in Nigeria and overseas asking for information on age, sex, region, field of study,

occupational goals and expected completion of studies. Five thousand returns have come in from Nigeria but only three thousand from overseas.

Once the information has been coded it will be punched onto cards in the Federal office of statistics and a permanent card with this information will be kept in the Registry of Students. The goal is to feed this information to the Manpower Board, to potential employers, and to help in the awarding of overseas scholarships.

It is expected that by December 1964 the preliminary data will begin to be fed back to the Manpower Board and to planners in the various regions. It should be noted that the weakness in the system so far lies in the inability to get returns from most of the overseas students.

Administration of technical assistance as opposed to academic education is the responsibility of the Division of Technical Assistance of the Federal Ministry of Economic Development, responsible for both receiving experts and sending out Nigerians for overseas training. The technical assistance flow in both directions is based on manpower needs as identified by the central Manpower Board and overseas training is closely integrated into the Development Plan. In order to avoid any overlapping or duplication the Federal Ministry of Economic Development deals only with the Regional Ministries of Economic Planning (and the Treasury in the West). Except for such programs as the Future Agricultural Leaders

under the AID Participant Training Program, very few individuals take degrees. The first concern in every case is that specific training be given for a specific man with a specific job in mind. Thus the degree is of secondary consideration. At the present time a survey is under way to determine the number of trainees overseas in various countries, but it will be very difficult to get this information for this EWA study.

By far the largest program sending Nigerians abroad is AID's Participant Training Program. AID has sent 692 Nigerians to the States since 1957 and is sending roughly 240 in FY '64. Whereas only seven percent of ASPAU students have enrolled in the field of agriculture, AID sponsored as many as 88 participants in this field in FY 1964. ASPAU, as presently organized, is less well equipped to gear its program to the priority manpower needs of Nigeria since it selects largely on the basis of academic merit, AID selects older individuals who have proven themselves on the job and who are prepared to accept further education related specifically to a top priority need.

Since the AID participant training program is project-oriented, it is not subject to the criticism, frequently leveled at ASPAU, of removing able students from the Nigerian educational system for too many years without specific plans for their utilization.

As already suggested, it is not possible in this

preliminary survey at this time to accomplish anything more than a rough guess of the total number of students enrolled in formal programs of study overseas, let alone the very substantial number of Nigerians who make their way abroad on their own or with unidentified private support and who may or may not be engaged in some kind of study.

We conclude that the total number of Nigerians in formal study abroad amounts to something over 10,000. Of these the bulk are, of course, in the United Kingdom, numbering about 1000 in universities, and about 7600 in other post-secondary institutions, for a total of 8600. The second largest group is in the United States, a total of about 1150 (excluding short-term and unidentified unsponsored students). As many as 50 students would appear to be enrolled in Commonwealth countries, and perhaps an additional 150 in European and other Western or non-aligned countries. No figures are available as yet for the number of Nigerian students in the Soviet Union and in Eastern European Countries. By applying the same proportion (slightly less than one-tenth) for this category as prevails for Tanganyika, the one country for which fairly firm figures are available, a total figure of about 900 is suggested. This looks much too high. The Institute for International Youth Affairs, New York, estimates no more than 200 Nigerians in the USSR. At this rate, there may be another 50 elsewhere in Soviet bloc countries.

United Kingdom	8,6000
United States	1,150
Commonwealth	50
Other non-bloc	150
Soviet bloc (?)	250
	<hr/>
	10,200

The federal Manpower Board estimates that approximately 1,300 Nigerians will be returning from overseas study each year. This would appear to be not far off the rate of return that might be expected from our gross approximation.

V. A FINAL (PROVISIONAL) WORD

At this preliminary stage, do the statistics assembled, the opinions solicited, the facts tracked down add up to anything? Through the accumulating weight of material, certain points-- even at this stage--begin to be apparent.

The basic statistics needed for honest and meaningful manpower and educational planning are simply not available in Nigeria, and may not be for a number of years in order to make anything like precise projections.

Inherited educational institutions, ingrained habits, status problems, attitudes toward work, standards of values and other aspects of the colonial carryover have had their effect on what has been done and on what is projected.

Funds projected for both economic and educational expansion have been curtailed due to falls in international commodity prices, a factor that will adversely affect primary producing countries for some years to come.

Two aspects of Nigeria's educational problem are most serious--but beyond the scope of this study: the problem of primary school leavers, and the excessive proportion of the national income being spent on universal primary education.

According to our rough calculations, the supply of Nigerian university graduates, from home and abroad, will be adequate to meet the country's expected requirements for the next few years, provided that efforts are made to attract or direct students into fields where they are needed.

Even our rough calculations indicate that Nigeria will continue to fall short, for some years to come, of an adequate supply of technicians and craftsmen. The World Bank loan, which is intended to be devoted in the main to strengthening technical education and the science aspect of secondary education, will help in this regard, but the infusion of capital will take some years before the results are measurable.

All signs indicate that U.S. financial aid, when possible, should be directed to backstopping graduate, rather than undergraduate, education abroad.

The weight of evidence indicates that, given the fact that even a vastly increased dollar amount of U.S. aid can only assist in a small segment of Nigeria's overall educational problem, our assistance should be directed toward helping the country make good the gaps in its education of its intermediate level, i.e., technical personnel, teachers and craftsmen.

Certain possibilities exist through which Nigerian education could be assisted in the immediate future, without waiting for the collation of sophisticated manpower projections, such as:

a) The teaching of English as a second language. A high percentage of educational failures in Nigeria can be laid to improper knowledge and use of English.

b) The early teaching of science and math, in both primary and secondary schools, regardless of which type of stream (arts, scientific--applied or pure) the student will later enter.

c) Minimal grants to universities to allow them to make better use of facilities and faculties, such as summer programs to upgrade teachers, internal scholarships, etc.

d) The building of technical schools, which are manifestly

necessary, and which can be planned and constructed while the need for them is being documented.

External assistance, from the U.S., no less than from other nations, takes time for projections, cost assessments, surveys, feasibility studies, and processing through the machinery of government. By focusing on basic, immediate needs, it might be possible to provide aid with a certain amount of speed and flexibility. In any event, the assembling of a mountain of material evidence of Nigeria's educational inadequacies will not alter the fact that, in the long run, the decision as to where and how to make our assistance efforts will depend on sound insights and common sense.

APPENDIX. LIST OF PERSONS SEEN BY THE EWA TEAM

Federal Region

- F.C.N. Agbasi, Principal, College of Technology, Yaba
- P.O. Ahimie, Senior Assistant Secretary, National Manpower Board,
Ministry of Economic Development, Lagos
- Dr. E.A. Akinleye, Training and Education Officer, Electronic
Corporation of Nigeria, Lagos
- G.L. Arms, Adviser: Radio, TV, and Modern Aids to Education (AID)
Visual Aids, Radio and TV Section, US/AID, Lagos
- Dr. S.O. Awokoya, Permanent Secretary and Chief Federal Adviser on
Education, Ministry of Education, Lagos
- Dr. Ademola Banjo, Chairman, Electronic Corporation of Nigeria,
Lagos
- Dr. Paul Barnhard, Director, Washington Company, Board of Education,
Hagerstown Project, US/AID, Lagos
- A.C. Basu, Manpower Expert (Statistics), National Manpower Board,
Ministry of Economic Development, Lagos
- Paul J. Bennett, Second Secretary (Economic Section), Embassy of
the United States, Lagos
- S.J. Bhatt, Manpower Expert (Employment), National Manpower Board,
Ministry of Economic Development, Lagos
- R.M.C. Chukwurah, Senior Assistant Secretary (Scholarships),
Bureau of External Aid, Ministry of Education, Lagos
- Max Davies, Shell B-P, Lagos
- Dr. E.J. Ebong, Deputy Permanent Secretary, Ministry of Economic
Development, Lagos
- M.K. Evans, First Secretary, British High Commission, Lagos

Federal Region (Cont'd)

A. Fischer, Nigerian business man, Lagos

Samuel Fuhr, Education Officer, US/AID, Lagos

J.W. Gailer, Adviser on Technical Education, Ministry of Education,
Lagos

Anofi S. Guobadia, Managing Director, Maiden Electronics Works, Ltd.,
Lagos

Mr. Hamilton, Group Personnel Adviser, United Africa Company, Lagos

Jake Harshberger, Training Officer, US/AID, Lagos

J. Newton Hill, African American Institute, Lagos

(Miss) Ruth Labert, US/AID, Lagos

William Lawless, US/AID Director, Lagos

Mordecai Levy, (Ford Foundation Representative), Ministry of
Education, Lagos

Clifford S. Liddle, Formerly Chief Education Officer, US/AID, Lagos

Elbert G. Mathews, Ambassador Extraordinary and Plenipotentiary,
United States of America, to Nigeria, Lagos

Father McKenna, Catholic Secretariat in Nigeria, Lagos

J. Robert Mitchell, Ford Foundation Representative, Lagos

Frank J. Moore, Ford Foundation Representative, Lagos

John R. Mossier, Deputy US/AID Director, Lagos

Dr. A. Musone, UNESCO Adviser on Statistics, Bureau of Educational
Statistics, Development Division, Ministry of Education, Lagos

Victor Ndalugi, Assistant Personnel Adviser, United Africa Company,
Lagos

William Haven North, Assistant Director for Programs, US/AID, Lagos

Mr. Ojora, Chief, Public Relations, United Africa Company, Lagos

J.O. Olajide, Senior Assistant Secretary, Technical Assistance Division, Ministry of Economic Development, Lagos

M.Ø. Omolayole, Personnel Director, Lever Bros., Apapa, Lagos

Arthur Peckham, Technical Assistant, British High Commission, Lagos

Virgil E. Poling, Indigenous Industry Program, US/AID, Lagos
(formerly Owerri)

(Miss) H. Louise Ramey, Assistant Program Officer, US/AID, Lagos

Dr. John Reedy, Chief, Arthur D. Little, Inc., Lagos

Dr. Richard Roe, Director, Nigerian Aptitude Testing Unit, Lagos,
(Interviewed in Kaduna)

Egon G. Rothblum, Industrial Development Adviser, US/AID, Lagos

Mr. Sawole, National Universities Commission, Lagos

Prof. William Schmidt, Economist, Consultant, US/AID, Lagos (Returned to Bologna)

Paul Schwarz, American Institute for Research, Lagos

Alan Sokolski, Assistant Program Officer, US/AID, Lagos

Ronald Springwater, African American Institute, Lagos

Andrew T. Sule, National Universities Commission, Lagos

J.E.C. Thornton, Secretary/Under Secretary, Bureau of External Aid, International Education Division, Federal Ministry of Education, Lagos

Dr. T.M. Yesufu, Secretary, National Manpower Board, Ministry of Economic Development, Lagos

Eastern Region

Jacob U. Agwu, Principal Assistant Secretary, Premier's Office,
Enugu

John Asher, Assistant Director, US/AID, Enugu

B.N. Chukwudebe, Secretary to Council, University of Nigeria, Nsukka

Hugh de Brock, General Manager, (Agricultural and Plantations
Division), Eastern Nigerian Development Corp., Enugu

C.F. Doane, Michigan State University, Administrator, University
of Nigeria, Nsukka

Chief the Hon. E. Emole, Minister of Finance, Enugu

E.O. Ezigbo, Assistant Secretary (Education and Social Services),
Economic and Planning Division, Ministry of Economic Planning,
Enugu

A.B. Fafunwa, Head, College of Education, University of Nigeria,
Nsukka

H.T. Goma, Assistant Secretary, Students (Scholarship) Board,
Ministry of Education, Enugu

Dr. Jerry Hanson, Principal, Comprehensive Secondary School, Port
Harcourt

W. B. Hawley, Deputy Chief of Party, Michigan State University,
University of Nigeria, Nsukka

F.O. Ihenacho, Chairman, Public Service Commission, Enugu

Dr. S.E. Imoke, Minister of Education, Enugu

Dr. E.L. MacDonald, Statistician (Adviser), Ministry of Education,
Enugu

D.N. Leich, Head, Personnel Department, Shell-BP, Port Harcourt

Dr. David L. MacFarlane, Adviser, Economic Development Institute,
Enugu

Eastern Region (Cont'd)

Clyde Matters, (Ford Consultant), Institute of Administration, Enugu

V.N. Muoneke, Principal Assistant Secretary, Ministry of Education, Enugu

O.F. Obi, Ministry of Economic Development, Enugu

Tom Ogbe, Shell-BP, Enugu

E.O. Okeke, Head of Students (Private) Board, Ministry of Education, Enugu

A.C. Okoroafu, Assistant Registrar, University of Nigeria, Nsukka

Dr. Philip C. Packard, Adviser, Economic Development Institute, Enugu

Robert Reid, Personnel Planning Officer, Shell-BP, Port Harcourt

G.E. Reynolds, Organization and Methods Consultant, Premier's Office, Enugu

P.E. Rignall, Shell-BP, Port Harcourt

Earl O. Roe, Head, Department of Journalism, University of Nigeria, Nsukka

Robert P. Smith, Consul and Principal Officer, American Consulate, Enugu

Alva D. Temple, Modern Aids to Education Center, Ministry of Education, Enugu

Northern Region

Mallam T.W. Bako, Senior Assistant Secretary, Technical Assistance Section and Niger Dams Office, Ministry of Economic Planning, Kaduna

Northern Region (Cont'd)

J.W.V. Chamberlain, Ag. Chief Inspector of Education, Inspectorate Division, Ministry of Education, Kaduna

(Mrs.) Margaret Chamberlain, Principal, Dartford College of Physical Education, U.K. (Interviewed in Kaduna)

I.J.D. Durlong, Ag. Permanent Secretary, Ministry of Education, Kaduna

John Dydo, Ford Foundation Economist, Ministry of Economic Planning, Kaduna

Dr. Jefferson Eastmond, US/AID, Statistical Officer, Ministry of Education, Kaduna

Ivan Eikenberry, Education Secretary, Northern Education Advisory Council, (Protestant Voluntary Agencies), Kaduna

G.W. Fairholm, Ag. Chief of Party, (University of Pittsburgh Project), Institute of Administration, Zaria

Abol F. Fotouhi, Branch Public Affairs Officer and Consular, USIS, Kaduna

J.E. Freeman, Planning and Development Officer, Planning Division, Ministry of Education, Kaduna

Mallam Ibrahim Jimeta, Secretary, Northern Nigeria Scholarships Board, Kaduna

Hon. Alhaji Isa Kaita, Minister of Education, Kaduna

B.L. Langendorf, Ford Foundation Economist, Economic Planning Unit, Ministry of Economic Planning, Kaduna

Dr. Bengt Nekby, Ford Foundation Economist, Economic Planning Unit, Ministry of Economic Planning, Kaduna

S.A. Oyawoye, Assistant Secretary III, Planning Division, Ministry of Economic Planning, Kaduna

Dr. Milt Ploghoft, Chief of Party, Ohio University Teacher Training Project, Kano

Northern Region (Cont'd)

Dr. H. Reas, (Ford Foundation), Coordinator and Chief Adviser of Staff Development, Training Section, Ministry of Establishments and Training, Kaduna

William A. Rex, Jr., Director, US/AID, Kaduna

Dr. Robinson, Communications Media Adviser, (Faculty of Education), University of Indiana Contract, Ahmadu Bello University, Zaria

John Smith, Director, Staff Development Center, Kaduna

C. Yount, (Ford Foundation), Adviser on Management Training, Training Section, Ministry of Establishments and Training, Kaduna

Western Region

N.K. Adamolekun, Registrar and Secretary to Council, University of Ibadan, Ibadan

H.S.A. Adedigi, Permanent Under Secretary, Ministry of Education, Ibadan

J.O. Akinwolemiwa, Assistant Chief Agricultural Extension Services, Officer, (Extension Services Division), Ministry of Agriculture and Natural Resources, Ibadan

John A. Ballard, Institute of African Studies, University of Ife, Ibadan

H.J. Balmond, Deputy Registrar, University of Ibadan, Ibadan

Dr. S.O. Biobaku, Pro-Vice Chancellor, University of Ife, Ibadan

Prof. J.E. Black, Dean, Faculty of Economics and Social Studies, University of Ibadan, Ibadan

K.P. Brundage, Farm Management Adviser, US/AID, Ibadan

Western Region (Cont'd)

Dr. A. Callaway, Ford Foundation Research Fellow in Economics, Ibadan

Chief I.O. Dina, O.B.E., Permanent Secretary, Treasury, Ibadan

E.U. Essien-Udom, Senior Lecturer, Department of Political Science,
University of Ibadan, Ibadan

Gerald P. Johnson, Chief of Party, Arthur D. Little Inc., (Treasury),
Ibadan

R.L. Marshall, Institute of Administration, University of Ife, Ibadan

Dr. Russell A. Milliken, Chief of Party, Ohio University Contract
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P.T. Odumosu, Permanent Secretary, Ministry of Economic Planning,
and Community Development, Ibadan

J.A. Odusanya, Officer in Charge, Young Farmers Club; Ministry of
Agriculture and Natural Resources, Ibadan

Ayo Ogunsheye, Director of Extra-Mural Studies, University of
Ibadan, Ibadan

Dr. H.M.A. Onitiri, Director of Nigerian Institute of Social and
Economic Research, University of Ibadan, Ibadan

O.A. Osibogun, Acting Senior Assistant to Secretary, Ministry of
Education, Ibadan

William E. Reed, Assistant Director, US/AID, Ibadan

S.P. Schatz, Senior Research Fellow, Nigerian Institute of Social
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Richard Sklar, Lecturer, Department of Political Science, University
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J.A.O. Sofolahan, Staff Inspector, Secondary Schools, Ministry of
Education, Ibadan

Western Region (Cont'd)

William Stiefel, Chief of Party, Western Michigan University, Ibadan
Technical College, Ibadan

George B. Vigil, Rural Youth Specialist, US/AID, Ibadan

African Manpower Study

Nigeria

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Eastern Region

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Closed Meeting
(Not for distribution)

EDUCATION AND WORLD AFFAIRS

Study of Manpower Needs

and

Educational Capabilities in Africa

Summary of Meeting at the Princeton Club, New York City, Sept. 18, 1964

Participants

Staff:

John Masland
James Sheffield
Eugene W. Burgess
Thomas E. Ford
Allan Michie
Sheldon Pollack
Donald J. Eberly

EWA:

Maurice Harari
Carl H. Martini

Study Committee:

C. W. de Kiewiet
Frederick Harbison
Eldon L. Johnson
John J. McKelvey, Jr.
Schuyler C. Wallace

Liaison:

Wilton S. Dillon
C. Walter Howe

AID:

Robert Van Duyn
Robert Leestma

EWA Secretariat:

Mrs. Sally Allen
Patricia Mulvey

OES:

John S. Everton

The purpose of this meeting was to review the field work undertaken by the staff during the summer in Kenya, Tanganyika, Uganda, and Nigeria, to identify issues requiring resolution, and to provide further guidance for the study.

The following documents were distributed at this meeting:

1. Memorandum to the Study Committee, September 18, 1964,
2. Preliminary Report, Kenya, September 16, 1964,
3. Preliminary Report, Nigeria, September 16, 1964,
4. Preliminary Report, Tanganyika, September 15, 1964,
5. Preliminary Report, Uganda, September 15, 1964.

Nature and Scope of Study

Mr. Masland suggested that the Committee's final report be addressed to the American academic community but with the intention of also reaching French, British and African readers. He suggested that the report include the following:

1. a brief introductory summary of the patterns of educational development under the French and British in tropical Africa prior to independence, and of educational plans and developments since independence,
2. the nature and dimensions of external assistance and significance both to Africa and to donors,
3. an analysis of basic issues with a post-secondary emphasis, including an indication of alternative strategies of external and internal assistance and of the role of study abroad by Africans,
4. Conclusions and recommendations (this will be the main body of the report), Mr. Masland suggested that in addition to the nine country studies requested by USAID, the study group might include a broad survey of developments in French West Africa, and also of the University of Zambia, for purposes of comparative analysis in the body of the report.

The vertical country-by-country approach will be continued until December, with completion of the nine country studies. Henceforth the study will become horizontal and based upon issues. Inclusion of the proposed section on the history of educational developments was questioned by Messrs. Harbison, and de Kiewiet on the grounds that experts were not concerned with this dimension. Messrs. Harbison, de Kiewiet and Van Duyn emphasized that the Committee should focus on the identification of basic issues and problems and the formulation of judgments and specific recommendations.

Upon request of USAID, Tunisia will be included in the study to replace the Congo-Leopoldville. The study of Tunisia would also be useful for a comparative survey of French educational influences in Africa, and will be indicative of advanced French planning and implementation.

Scholarship Selection Mechanism

Mr. Van Duyn asked whether AID should consider sponsoring the establishment or improvement in specific countries of more effective mechanisms for the selection, registration and advance planning for absorption into the economy of students studying abroad. If Tanganyika has the best model, should AID sponsor that or attack the job of coordination in other ways? Should AID ask foundations for financial and/or personnel help?

The Committee stressed that the selection process is critical and must be related to manpower planning. Methods to set up and operate such a selection mechanism and its location within each country might be explored. Broad policy issues such as the relationship of scholarships to economic development should be decided first.

Numerous dimensions to the selection problem were pointed out. Among these were:

1. the question of students who go abroad privately and about whom few, if any, records are kept,

2. the practice of American universities of dealing with students and foreign governments independently of American agencies and their failure to realize the implications of their decisions,

3. the problem of communication and coordination between various organizations such as AAI, IIE, and the foundations,

4. African confusion in the face of the proliferation of agencies,

5. the failure to provide Africans with sufficient information about both the American and African higher education systems,

6. the effect of the political situation and official attitude toward education in each country.

The Committee favored creation of no more external bodies to deal with these problems. Rather coordination within individual countries should be accomplished by African governments, and every effort should be made to strengthen the appropriate African agencies. American staff might be contributed to these offices, with Tanganyika's quite effective mechanism serving as an example.

It was decided that each report should contain a section dealing with available facts and policy recommendations to AID on the establishment of selection machinery and on possible US participation through foundations in that establishment. Measures should be suggested, if possible, to make scholarship recovery more effective, to improve methods of control, to allocate fellowships inside the country and to tackle the problem of private individuals studying overseas.

Strategy of Human Resource Development: Middle Level Manpower

Mr. Van Duyn suggested that an analysis be made of the extent to which there already exists machinery in each government to effect a strategy of human resource development. He requested

concrete recommendations for action.

The Committee agreed that the negative attitudes toward and incentives of middle level or category II manpower were fundamental difficulties. The consensus was that the creation of a sub-professional level is of vital importance and that an effort to manipulate incentives must be made.

In part, as Mr. de Kiewiet pointed out, the problem results from the danger of a clash between political ministers and educational administrators when the question of the middle level is raised. Other members indicated that the problem is aggravated by the widespread African practice of requiring completion of Sixth Form for university admission, by the inflexibility of admissions procedures and curricular and examinations standards, and by the nature of the African secondary educational system, which reinforces the imbalance of manpower levels. A different kind of secondary system and institutions at the junior college level are needed because the first degree of the African and British university systems is higher than required for the bulk of Africa's needs. At present, external assistance to technical and vocational schools is not fully effective because Africans want to go on to the university.

It was agreed that the AID program should avoid reinforcing the present educational pattern unnecessarily. The Sixth form system must be worked with, but alternate systems should be encouraged.

Unemployment

The Committee agreed that the problem of unemployment should be considered only as it related to the possible future unemployment of high level manpower. While exceedingly important, a study of unemployment is beyond the capabilities of this project.

Role of the University

Mr. Van Duyn requested that a decision be made about the proper role of the university and what it encompasses, whether the universities should include teacher training institutes, technical schools, etc., and if so what the lines of support should be.

Mr. Harbison emphasized that the university should play an "umbrella" role. Some members felt that local responsibilities might be retained by various schools in order to minimize the tremendous administrative problems created as a university becomes more comprehensive. Mr. de Kiewiet argued that the "umbrella" relationship involves the flow of communication, not necessarily of administration. Mr. Harbison suggested that the report should play upon university fears that part of the limited funds available will have to go to the middle level. The university which does not reach down and out will have a limited role and a limited budget.

It was agreed that universities should be encouraged to work closely with secondary schools and teacher training institutions in improvement of curricula, teaching methods and so forth. Suggestions were made that aid be used to push the University of Ife outwards to take over teacher training and that Ife should be kept in Ibadan and efforts should be made to develop cooperative work between Ife and the University of Ibadan.

ASPAU

Mr. Van Duyn raised numerous questions about ASPAU:

1. Should the ASPAU program in Nigeria be drastically curtailed?
2. Would support for local institutions be an acceptable alternative?
3. How many students should ASPAU support, country by country?

4. How many internal scholarships should AID support and in what form - regional scholarships for study in third countries, or other types in Africa?

Mr. Leestma pointed out that ASPAU will be at its peak this fall and the cumulative costs are now beginning to be apparent. ASPAU cost approximately \$2 million in the first year, but the total by next June will be about \$12 million. The sustained annual yield is approximately 250 students. The cost per student to AID is approximately \$3700 a year. The student gets less than half of that; the rest goes to selection, and administrative overhead. Mr. Van Duyn reported that there are 217 new ASPAU students this year. Of those, 186 are English-speaking (57 are Nigerians) and 21 are French-speaking. Scholarships were offered to 70 graduate students this year under the AFGRAD program. Fifty six were placed (21 were Nigerians) and most had been previously ASPAU-sponsored. AID has made a tentative decision that no further support be given for ASPAU students remaining in the US for a second degree.

The Committee favored a shift in scholarship support for study in the U.S. from the undergraduate to the graduate level, particularly for Nigeria. US scholarship assistance should be more closely related to the manpower assessments in the various countries. Although it is inadvisable to bond undergraduates, it is possible to bond students at the graduate level. More attention should be given to counseling, guidance and arrangements to keep in touch with African students abroad, keeping them informed of the manpower needs at home.

It was agreed that AID should concentrate on selection and processing mechanisms. Mr. Masland suggested that AID should support arrangements to enable African students continuing for a graduate degree to first return home for work experience. It was proposed that external assistance be used for scholarships within a country, reducing support for study abroad.

Such a program would also put pressure on local institutions to improve their own facilities.

Mr. Van Duyn summarized the Committee's judgment as meaning:

1. the number of Nigerian undergraduates should be reduced to 10-15, in the fields of mathematics, science and engineering.

2. we should work out an arrangement with Stephen Awokoya, the Permanent Secretary of the Nigerian Federal Ministry of Education, to find a way to take back all Nigerian undergraduates.

3. we should pick up as many Nigerians as possible at the graduate level who have home country experience and who fit in with manpower requirements. Ideally, we should pick up Nsukka and Ibadan graduates for future graduate training in the USA.

4. a strong recommendation should be made that Kenya direct returning students into teacher training. Kenyans who have been in the USA should go back and some sort of follow up should be devised.

Loans and other Self-Help Methods

It was suggested that new approaches to financing problems might be made by deliberate encouragement of self help methods for Africans. These might include loans, revolving funds, outside jobs, etc. An effort might be made to help African universities develop their own sources of income. In this regard, the report by John Morse to the Nigerian National Universities Commission on the possible use of loans to finance Nigerian students should be helpful, when it becomes available.

Mr. Van Duyn reported that J. T. Otiende, the Kenyan Minister of Education, had said that no more student bursaries would be given by the Kenyan Government. Henceforth it is planned that all students will study under outside scholarships or on a loan basis.

Medical Education

Mr. Van Duyn raised the question whether AID should support medical education, and if so, where and how.

The Committee agreed that sub-professional medical personnel were critically needed and that a solution to the problem is extremely difficult. The American medical education system is scientific, specialized and not appropriate for African needs. Africans are not satisfied with sub-professional medical training and want full-fledged medical schools, as demonstrated by recent changes in the Dar es Salaam Medical Training Center. Thus the shortage of sub-professional personnel continues.

Mr. Masland suggested that this problem might be reduced by giving educational opportunities to women, not only in the field of nursing, but in other technical specialities. Mr. de Kiewiet questioned the establishment of new medical schools and suggested that one answer might be found in collaboration with American medical schools. The Committee did not favor reducing aid funds for medical scholarships for Africans in the United States and Great Britain.

The Committee stressed that it will be important to look at the medical problems of the former French colonies and at the solutions devised.

French-Speaking Africa

Mr. Leestma noted that to date the United States has favored letting the French make the major contributions in French speaking Africa. Study in France rather than in the