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ABSTRACT

This study, after introducing Ghana's history and people, traces the story of educational development since 1951 and describes the present formal educational system. The subject is divided into four categories of consideration. First, the development of education over the years from colonial times through the modern system that has evolved is discussed. Second, a description of the administration and financing of education is outlined. Third, there is presented a detailed outline of the schools and their programs of study from the elementary through the university level. There is a final summation of enrollment and output patterns, educational expansion, and opportunities. Comprehensive tables provide comparative statistics on the numbers and percentages of those involved in the educational process: past and current student enrollment; government expenditures; actual time spent in the classroom; number of trained and untrained teachers; certification of teachers; and degrees available in higher learning. An appendix of selected references is supplied. (JD)

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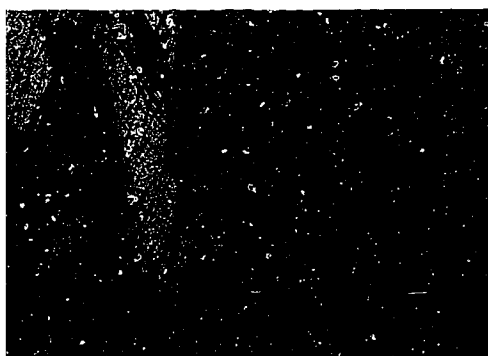
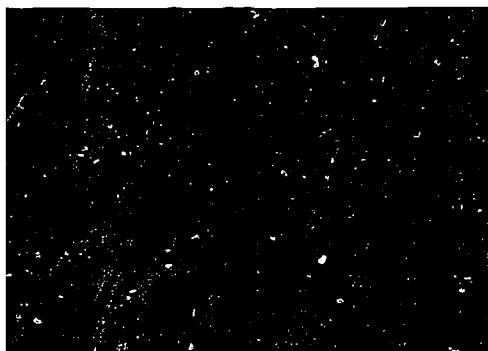
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SP010 618

# EDUCATION IN GHANA



# EDUCATION IN GHANA

by Betty Stein George  
*Specialist on Education in Africa  
South of the Sahara*  
Office of Education

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## FOREWORD

This study provides a comprehensive review of the formal educational system of Ghana, the West African country well known as the first of the former British dependencies in Africa to achieve independence (1957) and long regarded as a leader in African educational development. Based largely on primary source materials from Ghana, the study summarizes a number of major educational developments in Ghana since 1951, when the country achieved a considerable measure of internal self-government, and then in greater detail describes the formal educational system as it exists today. The relatively full treatment of the subject fills an important gap in readily available professional material on a key country in West Africa.

The study is an important addition to the series of basic reference studies on education in Africa south of the Sahara that have been produced under U. S. Office of Education (OE) auspices. Other countries in this region on which related OE studies have been published since 1960 include Tanzania, Uganda, Zaire, Kenya, Guinea, Mali, Senegal, and the Ivory Coast.

The author of the present study, Betty George, has been the OE specialist on education in African countries south of the Sahara since 1959. Among her publications since joining OE are *Education for Africans in Tanganyika*, the country that in 1964 merged with the former Zanzibar to form Tanzania, and *Educational Developments in the Congo (Leopoldville)*, the country now known as Zaire. She has also been the OE project manager, professional adviser, and contributing editor on studies of the other countries listed above. These studies were carried out under contract with specialists outside OE.

The author and the Office of Education wish to express their deep appreciation to the officials in Ghana's Ministry of Education who generously made available numerous publications and other materials, including educational statistics for recent years, for use in preparing the manuscript; to the vice chancellors and members of the administrative and teaching staffs of Ghana's three universities for their help on higher education matters; and to officials of the West African Examinations Council who also assisted the author in gathering materials.

Robert Lgestma  
Associate Commissioner  
for Institutional Development  
and International Education

March 1974

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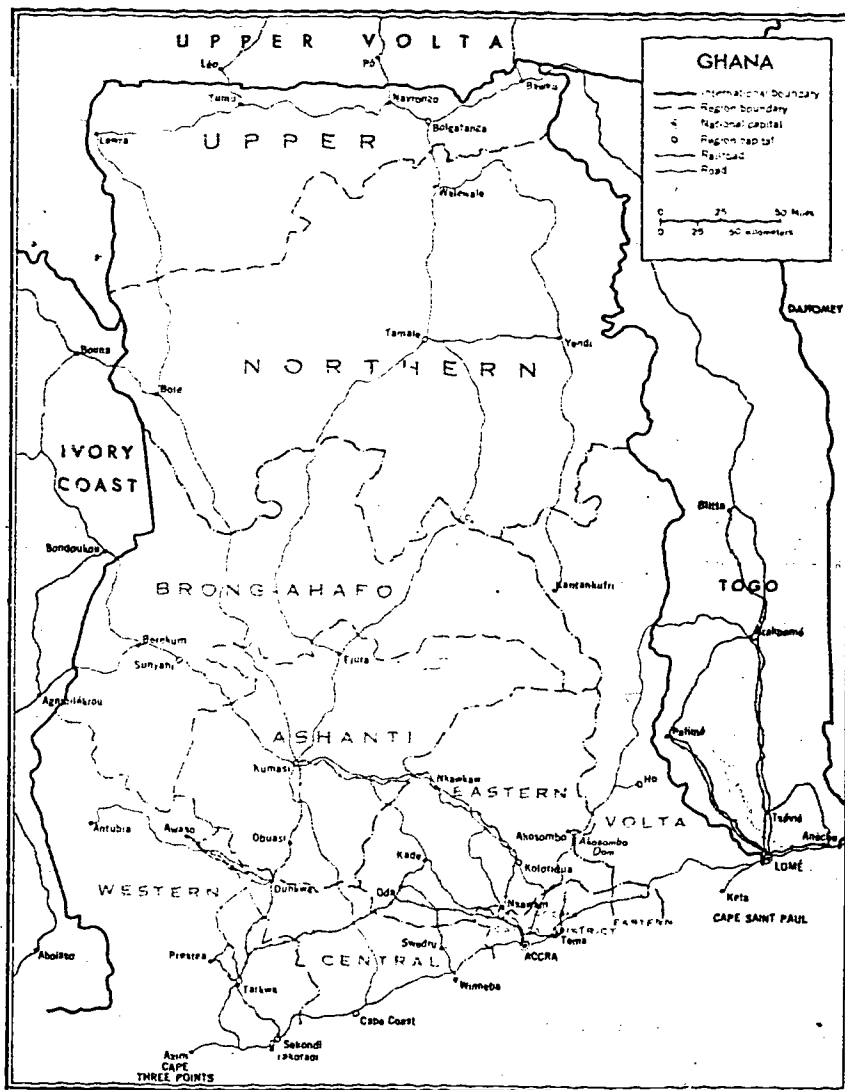
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## INTRODUCTION

Ghana probably holds a special place in the memory of the growing number of Americans who visit Africa each year, either as tourists or as students or teachers in African studies programs. If asked what is special about this small<sup>1</sup> rectangular country on the West African coast, they would probably say it is the people. The Ghanaians strike so many as hospitable and warm, and they make so many want to return.

Ghana certainly holds a special place in recent African history. Known as the Gold Coast before independence, it was the first British territory in Africa to achieve a real measure of internal self-government (1951) and then complete independence (1957). It thus became a symbol for Africans still under colonial rule and led the way to independence for the many countries of colonial middle Africa that achieved independence in 1960 and the years immediately following.

In education, the country has long been considered the leader in middle Africa. Developments in Ghana have often been followed by similar developments in other African countries. In 1951 (6 years before independence), when a measure of internal self-government was granted, the country embarked on a massive program of educational expansion and change; later, similar programs were begun in other African countries. This study, after introducing Ghana's history and people, traces the story of educational development since 1951 and describes the present formal educational system.

<sup>1</sup> About 92,000 square miles.

# **PART I.**

## **The Setting**

## I. A GLANCE AT HISTORY

### Before the 19th Century

Efforts are still underway to write a detailed history of the peoples of Ghana from the earliest days, on the basis of oral history, written records, and archeology. Nevertheless, while a great many details are missing, we do have a substantial body of knowledge. It seems that, in terms of long-range historical perspective, the ancestors of the present Ghanaians came into what is now Ghana in comparatively recent times in a series of migrations over a period of centuries that began at least as early as the 10th century, a period during which great African states were being formed and dissolved in the area to the northwest, north, and northeast. And it seems that most of the peoples had settled in their present locations by the beginning of the 17th century.

By the 13th century ancestors of the Akan (the largest group in Ghana today) were established north of the forest area that extends from the coastal belt over almost all the southern half of Ghana. Here they established early Akan states on trade routes to goldfields in the forest area. By the late 15th century they began to move south into the forest area itself where an Akan people were later to develop the powerful Ashanti Confederacy. Some accounts suggest that before the Akan moved into the forest area the Guan (a non-Akan people) had by 1200 occupied a crescent of land along the Black Volta, Volta, and eastern coastal area and the Fante (an Akan people) had by 1300 arrived on the coast, where they were to be followed later by the Ga and Ewe who came from the east (from what is now Nigeria) in the 17th and later centuries.

Perhaps as early as the 13th or 14th centuries Mande-speaking people moved southwest to what is now Upper Volta and northern Ghana, imposed their rule on the indigenous people, most of whom spoke Gur languages, and established in open savannah country the Mossi states of what is now Upper Volta and the states of Manprusi and Dagomba in what is now northern Ghana. By the 17th century a group who were probably Mande-speakers moved northward from Akan kingdoms north of the forest in which they had previously settled and founded the kingdoms of Gonja (south of Dagomba and Manprusi). The Mande rulers of Dagomba, Manprusi, and Gonja came to speak languages of the people

they ruled. Muslims came in with the Mande-speaking rulers or arrived later as scribes, medicine men, or traders, and at least from the 15th century on Islam considerably influenced the culture of the peoples of the northern half of what is now Ghana.

The Portuguese were evidently the first Europeans to arrive on the coast. They landed a party there about 1470, and in 1482 they built as a permanent trading base Elmina Castle, which stands today to the west of the present city of Cape Coast. The Portuguese were to be followed by English, Dutch, Danish, Swedish, and Prussian traders who established their own forts or castles as trading posts along the coast. In 1642 the Dutch took Elmina from the Portuguese and the latter left the coast.

The first traders came for gold and also for slaves, but the slave trade, which began about 1500 and increased in the 18th century, soon overwhelmed the trade in gold. The forts and castles along the coast became the centers at which European traders purchased slaves brought down from the interior by African traders and held them in dungeons, which one can see today, at such places as Cape Coast and Elmina Castle until they were shipped abroad. It has been estimated that half a million slaves were shipped from the Gold Coast alone.

### **Assumption of Control by the British**

By the beginning of the 19th century only the English, Danes, and Dutch still held forts and settlements on the coast, and most of these were English, operated by the British African Company of Merchants. Soon afterwards the Ashanti (an Akan people), who had in the 17th and 18th centuries formed through absorption or conquest of surrounding areas a powerful, well-organized state in the forest area north of the coastal belt, launched a series of invasions of the coastal area that continued throughout much of the century. They were attempting to establish control over the coastal states of the Fante (another Akan people) and the trade with the European coastal settlements the Fante controlled. Their incursions disrupted the trade in gold, timber, and palm oil and threatened the security of the European forts.

The British Government gradually and to a large extent reluctantly assumed greater responsibilities in the coastal area in order to maintain peace, put down the slave trade, and protect the trade of the English. In 1821, after Ashanti invasions in 1807, 1811, and 1814, the British Government took over the English forts and settlements from the Company, which had been unable to provide protection against the Ashanti. In 1828, after another campaign against the Ashanti, it returned control to a committee of merchants, but in 1843 once again assumed control of these forts and settlements. The following year the British and Fante chiefs in the area agreed to the famous Bond of 1844 pledging the British to protect the land

and authority of the chiefs and the chiefs to submit serious crimes to British jurisdiction. Selling their forts to the British, the Danes left the coast in 1850 and the Dutch in 1872. In 1874, after the 1873-74 campaign against the Ashanti (during which the Ashanti made their last invasion in force into the coastal area, and the British invaded Ashanti and destroyed Kumasi, its capital), the British Government, recognizing the need for permanent administration as well as protection, declared the forts and settlements of the coast a Crown Colony and other coastal territory under British influence a Protectorate.

In 1896 the British occupied Kumasi, forced Ashanti to accept British protection, and deported the Asantehene (paramount chief) and other Ashanti leaders to the Seychelles, from which they were not to return until 1924. Another war broke out in 1900 when the Governor of the Colony demanded to sit on the Golden Stool of the Ashanti which they regarded as the sacred resting place of the soul of their nation; and in 1901, the British annexed Ashanti.

Meanwhile, in the area north of Ashanti, British officials had concluded treaties of trade and protection with several tribes in 1896, and boundary commissions had delimited the borders with the adjoining French and German African territories in 1898 and 1899.

In 1901 the British Government formally declared (1) "the Colony" (the area that is now the Western, Central, Eastern, and Greater Accra Regions and the coastal section of the Volta Region) a Colony by settlement, (2) Ashanti (approximately the present Ashanti and Brong-Ahafo Regions) a Colony by conquest, and (3) the Northern Territories (approximately the Northern and Upper Regions except for their eastern sections) a Protectorate. (See map.) Thus in 1901 the British Government assumed full responsibility for the three areas that formed the British colonial territory known as the Gold Coast and three of the four areas that were to form independent Ghana. (The fourth was the strip of former German Togoland that first came under British administration as a League of Nations mandate after World War I, remained under British administration as a United Nations Trust Territory after World War II, and was consistently administered as part of the Gold Coast. This area included most of the present Volta Region and a strip on the eastern side of the present Northern and Upper Regions.)

The 19th century, during which the British Government was extending its control, was also the period during which both governmental and missionary activity established the base of the educational system. Africans from the area had studied abroad long before this, however.

### To Independence

A growing sense of national consciousness, which gathered momentum in the early 20th century and developed very rapidly after World War II,



led to a series of constitutional changes in the Gold Coast that progressively gave Africans a greater role in governing the country and brought the area to complete independence in 1957. From 1850 until 1946 a Legislative Council and an Executive Council advised the Governor on administration of the coastal settlements and, later, the Colony (but not Ashanti or the Northern Territories). The Executive Council consisted entirely of appointed official members (British officials), and the Legislative Council had a majority of official members. Until 1925 all the unofficial European and African members who constituted the minority were appointed rather than elected. The new constitution of that year provided for election of nine African unofficial members--six chiefs elected by Councils of Chiefs in the Colony and three members by the coastal towns of Accra, Cape Coast, and Sekondi.

Finally, 21 years later, the 1946 Constitution provided, for the first time, for an unofficial, African, and elected majority in the Legislative Council and for members to be drawn for the first time from Ashanti as well as from the Colony. The new Council consisted of 18 elected Africans (including 5 from Ashanti), 6 officials, and 6 nominated members appointed by the Governor. The Gold Coast for the first time had a representative Legislative Council, but it was essentially an advisory body, and executive power remained with the Governor.

Within 4 short years--a period of discontent, protest, disorder, and rising nationalist activity--the Gold Coast took a major constitutional step toward independence. In August 1947 Gold Coast intellectuals formed the United Gold Coast Convention (U.G.C.C.), the country's first true political party, to press for self-government. In December a man who was to become Prime Minister and President of Ghana and known throughout the world, Kwame Nkrumah, returned to the Gold Coast after many years of study in the United States (at Lincoln University and the University of Pennsylvania) and London to become its secretary general.

Soon afterwards, in February 1948, protests by veterans and others against economic conditions culminated in widespread rioting in Accra and other centers. The rioting began after the police, halting a march of ex-servicemen attempting to present a petition to the Governor in Accra, had opened fire, killing two and wounding others; before it was over 29 were dead and many injured. Hostility toward the colonial government increased. The U.G.C.C., six of whose leaders were detained in connection with the disturbances, criticized the Government for the underlying conditions and rapidly gained strength.

A commission sent by the British Government to investigate the conditions of unrest (the Watson Commission) recommended that the people of the Gold Coast be given a greater role in government, and an all-African Committee (the Coussey Committee), appointed by the Governor to recommend ways of carrying out the Commission's recommendations,

made proposals that formed the basis for the new constitution promulgated in 1950.

This constitution provided for an 84-member Legislative Assembly consisting principally of 75 African members elected directly or indirectly throughout the entire country--the Northern Territories as well as the Colony, Ashanti, and the Trust Territory--and legislating for the entire country. And it provided that the Executive Council (similar to a cabinet) should exist principally of an African Leader of Government (similar to a prime minister) and African Ministers, all drawn from the Legislative Assembly and responsible to it. Only three ex-officio members responsible for defense and external affairs, justice, and finance were to be appointed by the Governor and were not to be responsible to the legislature. The Governor was to have reserve powers for enacting legislation--powers that were in fact never used. This constitution gave the Africans of the Gold Coast a considerable measure of internal self-government.

Before the new constitution went into effect, Nkrumah had left the U.G.C.C. and had formed a new party, the Convention People's Party (C.P.P.), with the stated objective of immediate self-government. In a way that the intellectual elite who had led the U.G.C.C. never could, he was able to appeal to the youth, the market women who controlled petty trade, the urbanized workers, elementary school graduates, veterans, elementary school teachers, and others, and to build the Gold Coast's first mass party. Early in 1950 the C.P.P.'s campaign of "positive action" led to strikes and disorder. Nkrumah and others were jailed for sedition.

In the February 1951 Legislative Assembly elections under the new constitution, the C.P.P. won 34 of the 38 seats contested on a party basis and the U.G.C.C. only 3. Kwame Nkrumah came out of jail to become Leader of Government Business and head of a C.P.P.-dominated government.

Within 2 years the Gold Coast took the last major step before the final one to independence. The 1954 Constitution provided for a Legislative Assembly of 104 African members directly elected from single-member constituencies and a cabinet of ministers consisting entirely of Africans drawn from the legislature and presided over by the Prime Minister. Only defense and foreign affairs remained the responsibility of the Governor. In the 1954 elections under this new constitution, the C.P.P. won 77 of the 104 seats in the Legislative Assembly. Kwame Nkrumah became the Minister presiding over an all-C.P.P. cabinet.

About this time a dispute arose over the form of constitution the country should have when it took the next step and achieved independence. The National Liberation Movement (N.L.M.--a new Ashanti-based organization formed in September 1954), the Asantehene and the Asanteman Council of Ashanti, and the Northern People's Party (N.P.P.) of the Northern Territories continued to press for a federal form of government

as the process of drawing up a new constitution for an essentially unitary form went forward in 1955 and 1956.

In April 1956 the Gold Coast Government approved a White Paper setting forth its constitutional proposals and requesting early independence. Because of the failure to resolve the constitutional issue, the British Government indicated in May 1956 that it would agree to and set a firm date for independence only if the people of the Gold Coast had a full opportunity to consider the proposed constitution and express their views on it in a general election, and if a reasonable majority of the newly elected legislature passed a motion calling for independence within the Commonwealth. In the subsequent election, the C.P.P. won 71 of the 104 seats while the N.L.M. and the N.P.P. won, respectively, 12 of the 21 seats in Ashanti and 15 of the 26 in the Northern Territories. In August 1956, in the absence of members of these two opposition parties, the legislature passed by a vote of 72 to 0 a motion requesting independence for the Gold Coast under the name of Ghana. The British Government accepted this as representing a reasonable majority. On March 6, 1957, the Gold Coast, together with the Trust Territory, in which a majority had voted for union with the Gold Coast in a March 1956 plebiscite, achieved full independence as a dominion within the British Commonwealth of Nations under the name of Ghana.<sup>1</sup>

### Since Independence

#### *The Convention People's Party (C.P.P.) Government Under Nkrumah: March 1957-February 1966*

The years following independence saw Nkrumah's effort to build a highly centralized, modern semi-industrialized state along socialist lines, a great concentration of power in his hands (particularly after 1960 when Ghana adopted a new constitution under which it became a republic with a presidential form of government), the loss of civil liberties, the undermining of the judiciary and traditional leaders, control of the press, the formal declaration of a one-party state in 1964, a shifting of external ties from West to East, and a deteriorating financial and economic situation.

While prices for tin, Ghana's dominant export, fell and cocoa earnings leveled off, the cost of imports soared because the Government spent at a high rate on capital equipment and development projects. The bal-

<sup>1</sup> Ghana was the name of a great ancient kingdom centered in what is now Mali that had African kings from the 8th through the late 11th centuries. Denied by some authorities, what has been called the Ghana myth holds that the Akan are descendants of members of the kingdom who moved south when the kingdom was attacked by Berbers in 1076. In his book *Ghana in Transition*, David Apter says that F. E. Danquah, the leader of the U.G.C.C., claimed to be the author of the myth and held to its acceptance because it was based on research and documents in the British Museum; but in a personal interview he related that his main concern was finding a glorious past to provide a symbol from which Gold Coast nationalists could draw inspiration. David E. Apter, *Ghana in Transition*. New York: Atheneum, 1966, p. 22.

ance of payments position deteriorated. By the end of the Nkrumah regime, the Government had exhausted the strong reserves of foreign exchange Ghana had had at independence, had built up a massive foreign debt, which was to grow to about one billion dollars, and was in arrears on current payments.

*The 1966 Coup and the National Liberation Council (N.L.C.):  
February 1966--October 1969*

On February 24, 1966, as Nkrumah was arriving in Peking on a trip to Hanoi, the Army (certainly aware that the Soviet-trained "The President's Own Regiment" had become a force rivaling it in size) and the police overthrew his regime, giving as their reasons abuse of individual liberties, the dictatorial nature of the Nkrumah regime, and the deteriorating economic situation. They dismissed Nkrumah and his ministers, dissolved the C.P.P. and Parliament, suspended the Constitution, and released hundreds of political prisoners detained under the Preventive Detention Act. Winning wide support throughout the country for their actions, the leaders of the coup established, as the new Government of Ghana, the National Liberation Council (N.L.C.), which consisted of senior army and police officers under the chairmanship of Lt. Gen. Joseph A. Ankrah, who was later succeeded by Brigadier A. A. Afrifa. The N.L.C. ruled by decrees for 3½ years and then, true to its early pledge to return the country to civilian rule when order had been restored, did so in 1969.

A 16-member constitutional commission established by the N.L.C. under the chairmanship of the Chief Justice prepared a draft constitution; then a 150-member appointed Constituent Assembly convened in January 1969 and, using the draft as its working document, submitted a new constitution in August 1969. Obviously designed to prevent a recurrence of the highly centralized control of the Nkrumah period, this constitution provided for (a) a weakened, divided executive, consisting of an indirectly elected President (replaced initially by a 3-member military-police Presidential Commission) and a Prime Minister selected by the legislature; (b) a strong, independent judiciary; and (c), reflecting the resurgence of traditional rulers since the 1966 coup, a house of chiefs.

On August 29, 1969, Ghanaians went to the polls to elect the 140 members of the new National Assembly. The Progress Party under Dr. Kofi A. Busia—former leader of the National Liberation Movement and the United Party of the 1950's, who was abroad from 1959 until after the 1966 coup—won 105 of the 140 seats, while the National Alliance of Liberals under K. A. Gbedemah—a former C.P.P. leader and Minister of Finance, who had gone into exile before the 1966 coup—won only 27; and three other parties, 3. Not only Ashanti, the base of Busia's earlier opposition to the C.P.P., but the entire Akan area voted heavily for the Progress Party. Most of the seats in the predominantly Ewe Volta Region went to the N.A.L., led by Gbedemah, who is an Ewe.

*The Elected Civilian Government Under Busia:  
October 1969-January 1972*

On October 1, 1969, the newly elected civilian government headed by Dr. Busia as Prime Minister of the Second Republic of Ghana took office. Ghana thus became the first African country in which a civilian democratically elected government took over from the military. Under the Constitution as revised at the last minute, the Presidential Commission was to serve in place of the President for a period of 3 years unless the National Assembly voted otherwise. The Assembly did vote the dissolution of the Commission the following year, the Commission accepted it, and a presidential electoral college elected Ghana's Chief Justice as the first President of the Second Republic.

Both the N.L.C. and the Busia government accepted responsibility for the heavy foreign debts incurred by the former government, some of which were renegotiated and rescheduled at conferences in 1966, 1968, and 1970. Upon taking over the reins, the N.L.C. had immediately adopted a stabilization program that included restraining domestic credit expansion, cutting back the Government's development expenditures, and controlling imports in order to hold down inflationary pressure on the balance of payments. This deflationary policy was carried out at the cost of growing unemployment. Although from 1969 the Government decided to return to a policy of expansion, the debt and the balance of payments position remained a serious restraint on development expenditures and economic growth. Soon after taking office as Prime Minister, Dr. Busia described the situation to a Washington, D.C., audience.

As a result of that corrupt regime, Ghana is now saddled with a national debt of just over 1,000 million dollars. It will take 13 percent of our total export earnings to service that debt on the basis of present agreements. The growth rate of our economy is less than one percent, compared to a population growth of no less than 2.6 percent per annum.

In order to save us from bankruptcy, and to stabilize our economy, the National Liberation Council had to carry out deflationary policies, which inevitably added to our growing problem of unemployment. By the end of August of this year, the register of unemployed carried over 600,000 names on it, as compared with a total labor force of 2.4 million.

Owing to continuing foreign-exchange stringency our existing industrial capacity is running at a low level; there are essential commodities we cannot make available to our people, and national development projects have to be postponed for lack of foreign exchange.

We are determined to face the situation with courage, and by the united effort of a determined nation we hope to overcome. We are aware that we can't do so without foreign aid.<sup>2</sup>

<sup>2</sup> *Ghana News*, 1:7:5, November/December 1969. The quotation is from the address by Dr. Busia to the National Press Club, Oct. 21, 1969.

In July 1971 the Government introduced a budget that would prohibit many imports, abolish allowances for civil servants and army officers, require salary deductions for the National Development Levy, and cut Ministry of Defense expenditures; in December it devalued Ghana's currency by 44 percent, an action that sent prices up immediately.

*The National Redemption Council (N.R.C.): January 1972*

On January 13, 1972, less than 3 weeks after the Busia government had drastically devalued Ghana's currency, the Ghana Armed Forces removed the government of the Progress Party from office and took over for the second time in 6 years. Its leaders formed as the new Government of Ghana the National Redemption Council (N.R.C.) under the chairmanship of Colonel I. K. Acheampong, who a few weeks later explained that—

... the aim of the Armed Forces on 13th January was to rescue this country from the financial mismanagement of the previous Government which had brought it to the verge of economic collapse. It was also to rescue the country from the hands of a Government which had become increasingly insensitive to the feelings and sufferings of the very people who elected it into power. In the short space of two years the Government had harassed them with a series of harsh economic and other measures of varying severity and had flagrantly flouted the Constitution which formed the basis of the protection of the individuals.<sup>2</sup>

Very soon after it took over the reins of government, the N.R.C. unilaterally repudiated about one-third (\$94.4 million) of the foreign debt arising from medium-term loans and suppliers credits (\$294 million). It also declared it would not honor the remainder unless creditors could prove that the debts arose from valid contracts that were not vitiated by fraud, corruption, or other illegality and were in respect of technically and economically viable and productive projects. Moreover, such debts would be repayed on terms applicable to credit granted by the International Development Association, namely, repayment over 50 years after a 10-year grace period and at three-fourths of 1 percent interest. It also rejected the debt settlements concluded with creditor countries since the 1966 coup and thus canceled moratorium interest totaling \$72 million. It accepted, however, liability to pay both Ghana's short-term debt of \$286.26 million and her long-term debt of \$231 million.

The N.R.C. had made its choice between honoring the debts inherited from the Nkrumah regime and the economic development of the country and the well-being of its people. In an address to the nation on February 5, 1972, the Chairman of the N.R.C. explained the situation as follows:

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<sup>2</sup> Republic of Ghana. *Redeeming the Economy. Statements by Colonel I. K. Acheampong, Chairman, National Redemption Council.* Accra-Tema: Public Relations Directorate of the Ghana Armed Forces. Ghana Publishing Corporation, 1972, p. 17. The quotation is from an address by Colonel Acheampong on Feb. 5, 1972.

... the National Redemption Council is satisfied that the external debt obligations of Ghana that remain after the 1966, 1968 and 1970 debt settlements would drastically limit the ability of any government of Ghana to provide the basic necessities of life for the people or to carry out any modest programme of economic development and growth. The settlement required of Ghana is based upon the premise that Ghana would persist in a policy of harsh stabilization measures with attendant reduction in living standards and the retrenchment of human as well as material resources. There would be insurmountable difficulties for any government in generating surpluses on the budget. It would be impossible for the economy to generate the real resources that could be transferred to Ghana's creditors. It would also be naive to expect the external payments position to permit Ghana to find the required foreign exchange to make these transfers.

It is totally unacceptable to the National Redemption Council that the standard of living of the average Ghanaian now or in the foreseeable future should be substantially lower than it was ten years ago owing to the inability of the Government to generate economic growth, increase employment opportunities or to allow the importation of a sufficient volume of essential commodities.<sup>4</sup>

At the same time Colonel Acheampong announced the N.R.C.'s decision to nullify the massive devaluation declared by the Busia government. As of February 7, 1972, it revalued Ghana's currency by 42 percent, an action which lowered prices from their existing level but not to the level existing before the devaluation of December 27, 1971. And it restored certain "incentives" to the civil service that had been taken away by the Busia government.

The N.R.C.'s economic policy statements have placed a heavy emphasis on Ghana's self-reliance.

The National Redemption Council offers a great opportunity to Ghana to become, at last, self-sufficient in agriculture, able to produce enough food to feed the people, raw materials to feed our basic industries both for home consumption and for export. The National Redemption Council wants to end our ridiculous monocultural economy with the untenable dependence upon cocoa, while prospects for exports in other fields wait untouched.<sup>5</sup>

One facet of its program, "Operation Feed Yourself"—a national campaign to increase local food production—apparently caught on quickly.

<sup>4</sup> Ibid. p. 5. The quotation is from a radio and television broadcast to the nation by Colonel Acheampong on Feb. 5, 1972.

<sup>5</sup> Ibid. p. 14. The quotation is from an address by Colonel Acheampong to the staff of the Ministry of Finance and Economic Planning on Feb. 7, 1972.

## II. THE ECONOMY AND THE PEOPLE

### The Economy

Although Ghana's economic problems have imposed some constraints on economic growth, her economy is basically one of the strongest in middle Africa. Compared with many other African countries, she has rich physical resources and a well-developed economic infrastructure, and—mainly because of her cocoa exports—has long had one of the highest per capita incomes in Africa (approximately \$242 in the late 1960's).

The economy rests primarily on agricultural production of basic food-stuffs in which the country is not yet self-sufficient. Cocoa—of which Ghana is the world's leading producer—has long been the country's principal cash crop and principal export. Grown almost entirely by small-scale individual farmers, it provides at least 60 percent of Ghana's export earnings and is the major source of Government revenue. Other cash crops include palm oil, coffee, and coconuts. Probably agriculture occupies more than 60 percent of the active population and provides one-third to one-half of the Gross National Product (G.N.P.).

Forestry and mining are of increasing importance, and both tropical hardwoods and minerals (industrial diamonds, manganese, gold, and bauxite) account for sizable proportions of exports.

Although heavily emphasized during the Nkrumah years and more advanced than in most middle African countries, industry remains a comparatively small sector. Ghana has an aluminum smelter built and operated by the Volta Aluminum Company (owned by two U.S. companies) at the coastal city of Tema, a petroleum refinery, also at Tema, and a range of other industries devoted chiefly to consumer goods. With the completion of the Volta River project, consisting of the hydroelectric plant at the Akosombo dam (in the southern end of Lake Volta) and the related aluminum smelter at Tema, she has abundant electric power.

The available data suggest that in the 1960's more than 60 percent of the labor force—approximately one-third of the total population—was engaged in agriculture, forestry, and fishing; about 15 percent in commerce; about 9 percent in manufacturing; 6 percent in services; and the remainder in construction, transport and communications and other sectors. About 20 percent were in salaried employment; the remainder were self-employed (about 65 percent) or family workers.

### The Ghanaians

According to provisional results of the 1970 census released in 1972, Ghana in 1970 had a total population of 8,559,313.<sup>1</sup> Apparently the total

<sup>1</sup> Ghana, Central Bureau of Statistics, Census Office, *Provisional Census Results*, Mar. 9, 1972.



had increased by 27.24 percent between 1960, when the census total was 6,726,815, and 1970. The average annual growth rate during this period was probably about 2.4 percent per year.<sup>2</sup>

Of the total 1970 population, only about 17 percent lived north of the Black Volta in the Upper and Northern Regions, which together constitute well over one-third of the country's total area, and less than 28 percent lived in these two Regions and the Brong-Ahafo Region, which together constitute more than half of the country's total area. The remaining 72 percent of the population was concentrated in six southern Regions—the Western, Central, Greater Accra, Eastern, and Volta Regions (all of which border the coast) and Ashanti.<sup>3</sup> Averaging 93 for the country as a whole, population density ranged from 856 persons per square mile in Greater Accra to less than 100 in the three northern Regions (Brong-Ahafo, Northern, Upper) and the Western Region.<sup>4</sup>

Although the population remains predominantly rural, urbanization has been proceeding rapidly, particularly in the southern part of the country; the drift of people, including school leavers, has continued unabated from the poorer rural areas into the towns, despite high unemployment rates in urban areas. In 1970, more than 2.5 million people, or 30 percent of the total population, were living in 135 towns or cities with a population of 5,000 or more. (This percentage had increased from 13 percent in 1948 to 23 percent in 1960.) Almost 1.2 million, or 13.5 percent of the total, were living in seven centers having populations over 40,000: Accra, Ghana's capital (564,194); Kumasi, in Ashanti (260,286); Sekondi-Takoradi, in the Western Region (91,874); Tamale, in the Northern Region (83,653); Tema, the port and industrial city a short distance to the east of Accra (60,767); Cape Coast, an important educational center in the Central Region (51,653); and Koforidua in the Eastern Region (46,235).<sup>5</sup>

Ghana has one of the youngest populations in the world. In 1970 her people were distributed among the various age groups as follows:<sup>6</sup>

Mimeograph. Provisional results released in 1970 revealed a total population of 8,545,561. *Ghana News*, 2:3:3, June/July 1970.

<sup>2</sup>This is the official provisional figure reported in 1970. *Ghana News*, 2:3:3, June/July 1970.

<sup>3</sup>The population in each of the administrative Regions was as follows: Western—770,087; Central—890,135; Greater Accra—851,644; Eastern—1,261,661; Volta—947,268; Ashanti—1,481,698; Brong-Ahafo—766,509; Northern—727,618; Upper—862,723. Ghana, Central Bureau of Statistics, Census Office, *Provisional Census Results*, Mar. 9, 1972. Mimeograph.

<sup>4</sup>The figures are as follows: Western—83; Central—233; Greater Accra—856; Eastern—164; Volta—119; Ashanti—157; Brong-Ahafo—50; Northern—27; Upper—82. *Ibid.*

<sup>5</sup>Ghana, Central Bureau of Statistics, Census Office, *Provisional List of Towns with Population 5,000 and Over*, Mar. 3, 1972. Mimeograph.

<sup>6</sup>Data provided the author by the Census Office, Central Bureau of Statistics, Republic of Ghana, in July 1972.

<i>Age Group</i>	<i>Number</i>	<i>Percent</i> <sup>1</sup>
<i>Total</i> -----	8,559,313	100.00
0-5 -----	1,887,813	22.05
6-14 -----	2,128,152	24.86
15-24 -----	1,459,186	17.04
25 and over -----	3,084,162	36.03

<sup>1</sup> Items do not total 100.00 due to rounding.

About 47 percent of the people were under 15 years of age and 42 percent of them were 6 to 24 years of age, that is, within the group served by the elementary, secondary-level, and university institutions. Both percentages were higher in 1970 than in 1960 when the figures were, respectively, almost 45 percent and almost 39 percent. The education of this extremely large youthful population places a very heavy burden on the comparatively small active adult population and the Government.

The 1960 Ghanaian census documents list almost 100 different ethnic groups, defined in terms of language, cultural characteristics, and traditions of group identity. The largest (Ashanti) numbered about 900,000—only 13 percent of the total population. Many were small groups numbering only a few thousand. Almost 20 were designated as groups of non-Ghanaian origin and accounted for about 9 percent of the total population.

The many ethnic groups of Ghanaian origin were placed in the following broad categories and subcategories, which seem to be defined mainly in terms of language and to a lesser extent in cultural characteristics.

<i>Kwa</i>	<i>Adangbe</i>
Akan	Ewe
Anyi-Bawle	Guan
Nzema	Central Togo
Twi-Fante (Fante)	<i>Gur</i> <sup>1</sup>
Twi-Fante (Twi)	Mole-Dagbane <sup>2</sup>
Other	Gurma
Ga-Adangbe	Grusi
Ga	<i>Mande</i>

<sup>1</sup> Sometimes called Voltaic.

<sup>2</sup> Sometimes called Mossi Grunshi.

The two major categories, Kwa and Gur, subsume, respectively, all speakers of languages of the Kwa branch of the Niger Congo language family and all speakers of languages of the Gur branch of that language family. Most of the ethnic groups in the southern two-thirds of the country (about 70 percent of the total population) speak languages of the Kwa branch. Most of the groups in the north (about 20 percent of the population) speak languages of the Gur Branch. A speaker of a Gur language and a speaker of a Kwa language can communicate only through English or some other common language.

The Akan are the largest group in the country. They constitute about 44 percent of the population and inhabit a great circular area whose circumference sweeps the western half of the coast, the western border with

the Ivory Coast, the northern border of Brong-Ahafo Region, and Lake Volta on the east. The cocoa-growing belt and the goldmines of Ghana are within this area. Of the Akan, most—about 40 percent of Ghana's total population—speak Twi-Fante in one of its various mutually intelligible dialects. This large group of Twi-Fante speakers includes about 900,000 Ashanti in the Ashanti Region, more than 700,000 Fante in the western coastal area, more than 300,000 Brong who live to the north of Ashanti, and several other ethnic groups.

Non-Twi speaking Akan groups (about 4 percent of the population) include the Nzema, the western coastal people from whom Nkrumah came.

The Ga live to the east of the Fante, mainly in Accra and the surrounding area, and the Adangba to the east and northeast of the Ga. The two speak related but mutually unintelligible languages. Together they account for roughly 8 percent of the population.

Still farther to the east, in the Volta Region, are the Ewe, another important southern group, who make up approximately 13 percent of the population.

The Guan, who constitute about 4 percent of the total population, live both in a wide strip north of the Akan (north of the Black Volta) and south of the Gur-speaking peoples of the far north, and also in small enclaves in the coastal area.

In the north most of the people—about 14 percent of Ghana's total population—belong to the major Gur group, the Mole-Dagbani. This consists of more than 11 distinct groups, the largest of which is the Dagomba. The language of the Dagomba, Dagbani, serves as a *lingua franca* throughout a large part of the north.

Obviously no single Ghanaian language is spoken or understood by a majority of the people. Presumably because it has been understood that the use of any one Ghanaian language as the national language of Ghana would be politically impossible, English, an inheritance of British colonial rule, has remained the official language of Ghana. It is the language of government, of commerce, and of all educational institutions beyond the lower elementary level, where various Ghanaian languages are used.

More than a few Ghanaian languages have systems of writing. These include three dialects of Twi (Ashanti, Akuapem, and Fante), Nzema, Ga, Ewe, Dagbani, and Kasena (or Kasem), which is a Grusi language of the north.

According to a sample survey associated with the 1960 census, 42.8 percent of the people of Ghana at that time considered themselves Christians (29.4 percent as members of various Protestant groups and 13.4 percent as Roman Catholics), 38 percent adherents of traditional religions, 12 percent Muslims, and 7 percent adherents of no religion. Not unexpectedly, Christianity, which moved northward from the coast, was more prevalent in the south; while Islam, which generally moved into Ghana from the north, had the largest number of adherents in the far north. In each of

the Kwa language groups the largest percentage of the people indicated they were Christians and the second largest that they were adherents of traditional religions; while in each of the Gur language groups in the north the largest percentage indicated they were adherents of traditional religion and the second largest group indicated they were Muslims. In none of the Gur groups, however, did the percentage of Muslims exceed 22 percent.<sup>7</sup>

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<sup>7</sup> For a much more extensive description of Ghana's economy and people see *Area Handbook for Ghana*. Washington: U.S. Government Printing Office, 1971.

## **PART II.**

# **Educational Development**

## I. THE COLONIAL LEGACY

In what is now Ghana, control of educational policy and development passed into African hands not at independence in 1957 but in 1951 when the country, then the Gold Coast, achieved a considerable measure of internal self-government. The year 1951 is thus the baseline for analysis of educational expansion and change under African direction. At this time the educational system was still a small structure consisting of some 3,000 institutions enrolling about 312,000 pupils. The schools were unevenly distributed throughout the country and many were operated by missionary bodies without assistance from public funds. This system, of course, reflected much of the earlier development of western education in the Gold Coast.

### The Pre-1951 Period<sup>1</sup>

#### *Before the 20th Century*

The first European-type schools in what is now Ghana were established not by missionary societies (as they were throughout most of Africa) but by the large European trading companies at their forts or castles along the coast. The Portuguese established the first of these at Elmina (west of the present Cape Coast), where the Dutch, who took Elmina from the Portuguese, started a school in 1644. In the following century the Danes established one (in 1727) at Christiansborg in present-day Accra and the English another (in 1751) at Cape Coast. These served mulattoes and children of African traders.

In the early 19th century a period of educational expansion began both as a result of governmental activities and renewed missionary activity, which had previously been sporadic and limited. After 1821—even before the missionaries arrived—the British Government proceeded to establish several schools in addition to the one at Cape Coast. The first Basel Society missionaries arrived at Christiansborg in 1828; and the first missionary of the Wesleyan Methodist Missionary Society, at Cape Coast in 1835. They were to be followed by representatives of the Bremen Mission Society, who started work in what is now the Volta Region in 1847, and by representatives of other mission societies, who arrived late in the 19th and early in

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<sup>1</sup> This brief historical survey is drawn primarily from Gold Coast Department of Education reports and from Philip Foster's *Education and Social Change in Ghana* (Chicago: The University of Chicago Press, 1965), the excellent original study of educational development in Ghana.

the 20th century. Within a few years of their arrival the Methodists had established several schools enrolling a few hundred children, but the parallel group of Government schools were perhaps as numerous and as well attended.

This period of considerable direct governmental activity in education came to a close about the middle of the 19th century. From that time on a different pattern prevailed. The Government established and maintained comparatively few schools itself. It allowed missionary bodies and individuals to open schools freely wherever they wished and thus left expansion of the system largely to missions and some individuals. It made grants-in-aid to some mission schools and to some other schools on condition that they meet certain requirements. Probably for many years the public sector consisting of Government and Government-assisted voluntary agency schools was smaller than the entirely unaided sector, on which statistics are generally not available.

The system developed slowly throughout the 19th century. By 1881 there were 139 Government and Government-assisted schools in the coastal area, with all except three Government schools run by missions. They enrolled just over 5,000 students. By the turn of the century, there were still only about 135 Government and Government-assisted schools, which enrolled about 12,000 pupils: about 120 unaided schools were reported. Education was still almost entirely confined to the coastal area.

#### *During the First Half of the Century*

After the turn of the century (and after annexation of the two northern areas), educational activity was beginning to make progress in Ashanti (where it had not begun until after 1874), and the first steps to establish a school system were taken in the Northern Territories. While the area of Western educational activity expanded northward, the general policies governing educational development remained unchanged.

*The role of Government and missions.*—Until 1951, the Government continued its policy of leaving educational expansion largely in the hands of missionary bodies, which were allowed freely to establish schools wherever they wished. To a large extent responding to local demand, which was greatest in urban and other areas of economic and social change, the missions carried out their educational work mainly in the southern part of the country (the Colony and Ashanti). In Ashanti, as in the coastal area, they became very active: later in the colonial period, as cocoa production became well-established, a school system developed rapidly in this area. In the less developed and traditionally oriented Northern Territories, the demand for education remained extremely limited and educational development was very slow. The White Fathers were the only missionaries working in this area. Education was left largely to the Central Government and the Native Authorities (local government bodies). The Central Gov-

ernment continued to extend aid to mission schools, although probably throughout most of the period to fewer than half of them.

From 1930 on, some schools were also established on the initiative of local African rulers and administered by the Native Authorities. In addition, private citizens established nondenominational schools in urban areas, some of which qualified for Government grants-in-aid.

The Central Government established few schools itself. It opened some primary schools—particularly in areas where the missions made little progress. One of these opened in 1908 at Tamale in the north. In 1909 it established a normal college for teachers at Accra—the first institution of its kind established by a British West African Government—and many years later, in 1919, established another at Tamale. In 1909 it established a technical school at Accra (later transferred to Takoradi, a coastal town west of Cape Coast), and in 1922 opened four junior trade schools. One of the four was closed in 1932 and the others during World War II, but in the late 1940's the Central Government was again operating two schools of this type. In 1902 it established, outside Accra, Achimota College, which in 1930 became an "autonomous" institution governed by a council of Government and non-Government representatives. In the late 1920's Achimota added in turn to its initial teacher-training courses (transferred to Accra) kindergarten and lower primary classes and then upper primary, secondary, and university classes; and continued all of these until 1944, when it confined itself to secondary, teacher-training, and university courses. The university section, which prepared students for external intermediate and degree examinations of the University of London, became the nucleus of the University College of the Gold Coast, which was established in 1948.

*The increasing demand in the forties.*—Until about 1940 the Gold Coast system as a whole developed slowly (table 1); this growth was confined largely to the southern part of the country, encompassing the Colony and Ashanti. Then from about 1940 on, "a rapidly increasing and insistent demand"<sup>2</sup> for primary education in the southern part of the country led to the opening of hundreds of unaided primary schools in this area. "Many of these were started by local communities without reference either to recognized Educational Units or to the Educational Department. No notification of their founding was given and their existence was not registered."<sup>3</sup> Most of them were in rural areas. "The majority were exceedingly ill-housed, almost devoid of equipment and, with few exceptions, all were staffed with untrained teachers. The full extent of this development was brought to light by a series of education surveys carried out by Education Officers and selected teachers during period 1944-47."<sup>4</sup>

<sup>2</sup> Gold Coast. *Annual Report of the Education Department for the Year 1952*. Accra: Government Printing Department, 1954, p. 5.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*



Table 1.—Number of primary schools and pupils,<sup>1</sup> by control of school:  
Selected years, 1881–1951

[\* means source gave no figure.]  
[† means category of school did not exist.]

Year	Total	Publicly assisted					Designated	Total <sup>2</sup>	
		Government and assisted			Total	Government			Assisted
		Total	Government	Assisted					
1	2	3	4	5	6	7	8		
SCHOOLS									
1881	.....	139	3	136	*	.....	.....		
1890–91	.....	54	5	49	*	.....	.....		
1901	255	135	7	128	*	.....	120		
1911	377	160	.....	.....	*	.....	217		
1920	524	216	19	197	*	.....	308		
1930	591	340	28	312	*	.....	251		
1940	930	467	23	444	*	.....	464		
1941	.....	466	.....	.....	*	.....	.....		
1942	.....	471	.....	.....	*	.....	.....		
1943	1,227	492	.....	.....	*	.....	735		
1944	1,676	503	.....	.....	*	.....	*1,173		
1945	2,561	553	.....	.....	*	.....	*2,008		
1946	2,753	578	.....	.....	*	.....	*2,175		
1947	3,018	619	.....	.....	.....	817	1,582		
1949	2,973	620	36	584	.....	852	1,501		
1951	3,073	666	41	625	.....	956	1,451		
PUPILS									
1881	.....	*5,000	.....	.....	.....	*	.....		
1890–91	.....	5,076	.....	.....	.....	*	.....		
1901	.....	12,018	.....	.....	.....	*	.....		
1911	.....	18,680	.....	.....	.....	*	.....		
1920	42,132	28,505	4,250	24,255	*	.....	13,627		
1930	53,550	41,917	6,362	35,555	*	.....	11,633		
1940	88,720	61,832	6,269	55,563	*	.....	26,888		
1941	89,242	61,286	.....	.....	*	.....	27,956		
1942	96,643	64,063	.....	.....	*	.....	32,580		
1943	113,431	69,082	.....	.....	*	.....	44,349		
1944	143,322	74,193	.....	.....	*	.....	*69,129		
1945	184,520	75,454	.....	.....	*	.....	*105,066		
1946	.....	87,531	.....	.....	*	.....	.....		
1947	.....	93,274	.....	.....	.....	.....	.....		
1949	291,519	100,888	7,640	93,248	.....	96,091	94,540		
1951	300,705	106,300	7,307	98,493	.....	114,235	80,170		

<sup>1</sup> A few secondary schools and pupils may be included in the figures for the years 1901 and 1911.

<sup>2</sup> Figures in this column are probably incomplete.

<sup>3</sup> The increase in this year resulted both from an actual increase in the number of schools and the ability of the Education Department to obtain statistics on previously unknown schools.

\* Approximate.

Sources: (1) For 1881 and 1890-91: Gold Coast. Report on the Education Department for the Year 1849-50. Accra: Government Printing Department, 1951. p. 1. (2) For 1901 and 1911: Philip Foster. Education and Social Change in Ghana. Chicago: University of Chicago Press, 1965. pp. 79, 113. (3) For 1920-1930, and 1940: Gold Coast Colony. Report of the Education Committee 1937-1941. Accra: Government Printer, 1942. p. 29. (4) For 1941: Gold Coast Colony. Report on the Education Department for the Year 1941-42. Accra: Government Printer, 1942. pp. 2, 4. (5) For 1942: Gold Coast Colony. Report on the Education Department for the Year 1942-43. Accra: Government Printer, pp. 3, 6. (6) For 1943: Gold Coast Colony. Report on the Education Department for the Year 1943-44. Accra: Government Printing Department, 1944. p. 4. (7) For 1944: Gold Coast Colony. Report on the Education Department for the Year 1944-45. Accra: Government Printing Department, 1945. p. 5. (8) For 1945: Gold Coast Colony. Report on the Education Department for the Year 1945-46. Accra: Government Printing Department, 1947. p. 7. (9) For 1946: Gold Coast Colony. Report on the Education Department for the Year 1946-47. Accra: Government Printing Department, 1947. p. 9. (10) For 1947: Gold Coast Colony. Report on the Education Department for the Year 1947-48. Accra: Government Printing Department, 1949. pp. 9-10. (11) For 1949: Gold Coast. Report on the Education Department for the Year 1949-50. Accra: Government Printing Department, 1951. pp. 27, 29, 30. (12) For 1951: Gold Coast. Report on the Education Department for the Year 1951. Accra: Government Printing Department, 1953. pp. 31, 33, 34.

According to figures reported in the Education Department's reports (table 1), the number of unaided schools increased from fewer than 500 in 1940 to more than 2,000 in 1945, and the number of pupils in these schools from about 27,000 in 1940 to more than 105,000 in 1945, a year in which they outnumbered pupils in Government and assisted schools. The Department said the increase was explained both by the steadily growing demand for education and by the fact that the Department had been able to obtain information on previously unknown schools. The newly available data "made it clear that a serious situation was to be faced in that the unplanned and unco-ordinated opening of this mass of schools had seriously jeopardized the standard of primary education throughout the Colony and Ashanti and had raised major problems in regard to the 'distribution' of educational facilities."<sup>5</sup>

The Central Government decided that these unaided primary schools should be improved by replacing their staff by trained teachers, that the steadily increasing salary bill would have to be met mainly from public funds, and that a large proportion of these funds would have to come from Native Authority taxation. Since not all of the more than 2,000 schools could be developed, it put into effect in 1947 a new policy of "designating" some of them to receive assistance from funds administered by the Native Authorities and derived both from Central Government grants and Native Authority taxation. The selected schools aided in this way were known as "designated" schools.

In the 1930's and 1940's there was also a growing demand for secondary education in the southern part of the country and a rapid growth of this sector of the system, to a large extent achieved outside the grant-aided system by the Africans themselves. Between 1930 and 1940, as the number of assisted secondary schools (including Achimota) increased from three to four, the number of unaided schools grew from two to twelve; and in 1940 pupils in unaided schools outnumbered those in the assisted ones.

<sup>5</sup> Ibid.

By 1951 nine secondary schools had been added to the assisted list (one in 1941, four in 1946, and one each in 1949, 1950, and 1951), bringing the total to 13, but the number of unaided schools had risen to 49 and enrolled more students than the assisted schools (table 2).

**Table 2.—Number of secondary schools and pupils, by control of school: Selected years, 1920–51.**

[ . . . means source gave no figure ]

Year	Schools			Pupils		
	Total	Government and assisted	Unaided	Total	Government and assisted	Unaided
1	2	3	4	5	6	7
1920	12	1	1	165	75	90
1930	5	3	2	601	538	63
1940	16	4	12	2,635	1,199	1,436
1945	23	5	18	3,266	1,085	2,181
1946	28	9	19	4,150	1,764	2,386
1948	28	10	18	4,377	2,225	2,152
1949	—	11	—	5,907	2,511	3,396
1951	62	13	49	6,901	2,937	3,964

<sup>1</sup> Includes enrollment at Government Technical School.

Sources: (1) For 1920, 1930, and 1940: Gold Coast Colony. *Report of the Education Committee 1937–1941*. Accra: Government Printer, 1942, p. 30. (2) For 1945: Gold Coast Colony. *Report on the Education Department for the Year 1945–46*. Accra: Government Printing Department, 1947, p. 8. (3) For 1946: Gold Coast Colony. *Report on the Education Department for the Year 1946–47*. Accra: Government Printing Department, 1947, p. 10. (4) For 1948 and 1949: Gold Coast. *Report on the Education Department for the Year 1948–50*. Accra: Government Printing Department, 1951, p. 21. (5) For 1951: Gold Coast. *Report on the Education Department for the Year 1951*. Accra: Government Printing Department, 1953, pp. 21, 35.

The number of students completing the basic secondary schools course and taking the external examination (the Cambridge School Certificate examination) had increased to 578 in 1949 from 179 in 1938 and from between 300 and 400 in each of the years 1940 through 1946.

*Regional variations.*—It is clear that from the turn of the century to 1951 development in the Northern Territories (the area north of Ashanti) lagged far behind that in the south. The Government had opened a primary school at Tamale in 1903, and the White Fathers opened another one at Navrongo in 1910. Later this mission opened a few more primary schools and the Native Authorities opened several others. As of 1943, however, the Northern Territories had only 20 schools. The Government Training College at Tamale, established to train local northern teachers for the Native Authority schools, did not open until 1944 and the area's first secondary school did not open until January 1951. In the 1940's a

rapidly growing demand for education was leading to the opening of many new primary schools in the south. "In the Northern Territories there was no similar demand for education. The educational situation was one of painfully slow development, of very limited resources, and a lack of local teachers and of a reluctance to send children to school."

The difference between the Colony and Ashanti during the first half of the 20th century remains one of the mysteries of Ghana's educational history, shrouded in the general practice of presenting combined rather than separate statistics for the two areas. Certainly throughout most of the period Ashanti occupied an intermediate position between the Colony on the one hand and the Northern Territories on the other. In 1919, according to one report, the relative data were as follows:<sup>7</sup>

	Estimated population	Number of schools	Enrollments
Total	2,777,000	213	27,825
Colony	1,143,000	186	25,000
Ashanti	497,000	23	2,600
Northern Territories	1,127,000	4	225

In other words, about 90 percent of the schools were in the Colony, which had about 55 percent of the population; about 89 percent were in Ashanti, which had about 20 percent of the population; and less than 1 percent were in the Northern Territories, which had about 25 percent of the population.

Reflecting earlier patterns of school attendance the 1948 census showed that the percentage of the population with at least 6 years of education was 5.8 in the Colony, 3.9 in Ashanti, and .21 in the Northern Territories. There is some evidence, however (discussed later), that by the time the Gold Coast achieved a measure of self-government in 1951 Ashanti was as well supplied with elementary school facilities in relation to its population as was the Colony.

## The 1951 System

### *Schools and Courses*

In 1951 the Gold Coast, including the Trust Territory of Togoland (which was administered as part of the Gold Coast), had at the elementary level some 2,500 infant-junior schools (renamed primary schools in 1951), which enrolled about 234,000 children and offered part or all of a 6-year primary course; and some 500 senior primary schools (renamed middle schools in

<sup>7</sup> Ibid.

<sup>8</sup> Thomas Jones Jones, *Education in Africa: A Study of West, South, and Equatorial Africa by the African Education Commission, under the auspices of the Phelps-Stokes Fund and Foreign Mission Societies, 1900-1922: America and Europe*. New York: Phelps-Stokes Fund, 1922, p. 130.

1951), which enrolled about 60,000 children and offered part or all of a further 4-year course of general education.

Even at that time the origin and history of the senior primary (middle) school, the unique feature of the system then and now, seemed not too clear. The Education Department's report for 1949-50 commented:

The senior primary course has been established in the Gold Coast for at least 70 years, the original purpose being, apparently, to provide a 'post-basic' or 'secondary' course relevant to the country's needs and of the highest standard feasible at the time. The course has long been the central feature of the educational structure. Although it is probable that the original intention was much broader, the course has come to be regarded by parents and pupils chiefly as a preparation for clerical and other wage-earning or salaried employment of 'broad-based' types, entered immediately after the school-leaving or an after-school form of vocational training.

The completion of the course led, as the report indicated, to admission to a variety of vocational courses including teacher training, but it also served as the preparatory program for entry to the academic secondary schools which in turn led to university studies, and it seems probable that it was seen in this light as well.

In accordance with general British educational policy in Africa at the time, local languages served as the medium of instruction during the early years of education. English replaced them at a later stage.

The Gold Coast had about 60 secondary schools enrolling about 6,900 students. The small and select group of 13 publicly assisted ones, which included Achimota and such old and famous schools as Adisadel and Mfantshipim, had since 1949 selected their entering students by means of a Common Entrance Examination from among pupils in the 8th, 9th, and 10th years of elementary education. As now had for many years, these schools and unaided ones gave a course leading to the School Certificate examination of the University of Cambridge Local Examinations Syndicate (in the United Kingdom). The 10 of the publicly assisted schools also gave the further 2-year "Sixth Form" university preparatory course leading to the Cambridge Higher School Certificate, which Achimota had pioneered in 1949.

The Gold Coast also had 20 teacher-training "colleges" enrolling about 1,900 students and 41 technical institutions enrolling about 2,300. The teacher-training colleges offered 1-year post-middle school and 2-year post-School Certificate "Certificate A" courses to train primary and middle-school teachers, and a 1-year post-middle school "Certificate B" course to train primary school teachers. The technical institutions offered a variety of trades and technical courses to those who had completed the 10th year

\* Gold Coast, *Report on the Education Department for the Year 1949-50*. Accra: Government Printing Department, 1951, p. 6.

of elementary education or less. At the peak of the system stood the University College of the Gold Coast, which had opened in 1948 and at the beginning of the 1951-52 academic year enrolled some 300 students.

### *Public and Private Sectors*

The system consisted of two major sectors: one encompassing all schools that received financial assistance from public funds, and all the other schools that, with few exceptions, received no assistance from public funds. The former—the publicly assisted or public system—included Government schools, assisted schools, and, at the elementary level only, designated schools. Government schools were supported entirely by the Central Government and managed by its Education Department. Assisted schools were those receiving grants-in-aid from the Central Government. Most were conducted by missions and churches, but a few were run by Local Authorities<sup>9</sup> or individuals. Designated schools, operated by missions, churches, and Local Authorities, were the previously unaided primary schools that had been selected from 1947 on to receive assistance from public funds administered by the Local Authorities. The second sector—the private, unaided, or unassisted sector—consisted of all the schools receiving no assistance from public funds except for occasional small grants from the Local Authorities.

The following tabulation shows the 1951 distribution of schools and pupils, by category of school:<sup>10</sup>

<i>Level or type of school</i>	<i>Schools</i>			<i>Pupils</i>		
	<i>Total</i>	<i>Government and assisted<sup>1</sup></i>	<i>Unaided</i>	<i>Total</i>	<i>Government and assisted<sup>1</sup></i>	<i>Unaided</i>
<i>Total</i> -----	3,196	1,650	1,538	111,412	220,005	85,404
Primary and middle -----	3,073	1,622	1,451	100,788	217,705	80,170
Primary -----	2,733	1,083	1,030	84,490	174,050	60,132
Middle -----	340	539	421	66,298	43,655	19,838
Secondary -----	62	13	19	6,900	2,337	3,954
Teacher training --	20	20	—	1,906	1,916	—
Technical -----	41	—	68	1,002	—	1,270

<sup>1</sup> Includes "designated" primary and middle schools.

<sup>2</sup> Includes 41 Government, 625 assisted, and 953 designated schools.

<sup>3</sup> Includes 7,807 in Government, 90,493 in assisted, and 114,235 in designated schools.

As the tabulation shows, there were more Government and publicly assisted primary and middle schools than unaided ones, and the former

<sup>9</sup> Established under the 1951 Local Government Ordinance to replace the former Native Authorities.  
<sup>10</sup> Gold Coast. *Report on the Education Department for the Year 1951*. Accra: Government Printing Department, 1953, pp. 33-34, and Ghana. The Office of the Government Statisticians. *Education Statistics 1959*. Accra: The Office of the Government Statisticians, 1959, pp. 1-2.

enrolled about 73 percent of all primary and middle school pupils. This was true, however, only because of the recent establishment of the category of designated schools and the extension of public funds to these formerly unaided institutions. Designated schools enrolled 38 percent of all primary and middle school pupils while Government and assisted ones together enrolled about 35 percent. At the primary school level more than one-third of all children were in unaided schools and there were more unaided schools than assisted schools. A majority of the secondary schools were also unaided institutions and 57 percent of all secondary school students were enrolled in these institutions.

In the Northern Territories all schools except seven elementary schools enrolling a mere 202 pupils were assisted by public funds, and most of them were conducted by Native Authorities. In the south (Colony and Ashanti) a considerable proportion of the primary and middle schools (1,444 of the total 2,975) were unaided institutions, and they enrolled 27 percent of the primary and middle school pupils (79,968 of the total 294,711). In addition, 49 of the 61 secondary schools and 36 of the 40 technical schools were unaided institutions. In this area most of the schools, whether assisted or unaided, were managed by mission or church bodies.

In the south almost all the public as well as all the unaided schools charged tuition fees. In the Northern Territories education was largely free.

### *Regional Variations*

Certainly throughout part of the period from the turn of the century to 1951 provision of school facilities differed greatly in the Colony, Ashanti, and the Northern Territories. These three major administrative divisions of the Gold Coast constituted three quite distinct educational spheres. Data from the previously mentioned 1948 census show this, but these data, at least in part, reflect a much earlier pattern of school distribution. Which pattern prevailed in the decade or so before self-government is not so clear. The Education Department's reports for these years generally presented only statistics for the Northern Territories, on the one hand, and for the Colony and Ashanti grouped together, on the other. These statistics show only that the Northern Territories consistently lagged far behind the rest of the country, and not what educational differences existed between the Colony and Ashanti. In the absence of such data it could easily be assumed—and sometimes has been—that in 1951 Ashanti still held a clearly defined intermediate position between the Colony and the Northern Territories.

There are, however, data showing separately the number of pupils in the Colony and Ashanti in 1951 and 1952 that in conjunction with population data from the 1948 census suggest a somewhat different situation. The Education Department's report for 1951 (the first to present some separate

enrollment statistics for the Colony and Ashanti) shows that schools (both publicly aided and unaided) of the Gold Coast (including the Trust Territory of Togoland) and their pupils were distributed as follows:<sup>11</sup>

<i>Schools</i>					
	Total	Colony and Ashanti	Colony	Ashanti	Northern Territories
Total -----	3,196	3,094	---	---	102
Primary and middle -----	3,073	2,975	---	---	98
Secondary -----	62	<sup>1</sup> 61	---	---	1
Teacher training ---	20	18	11	7	2
Technical -----	41	<sup>2</sup> 40	---	---	1

<i>Pupils</i>					
	Total	Colony and Ashanti	Colony	Ashanti	Northern Territories
Total -----	311,354	305,191	---	---	6,163
Primary -----	234,492	229,248	157,494	71,754	5,244
Middle -----	66,213	65,463	47,244	18,219	750
Secondary -----	6,901	6,881	---	---	20
Teacher training ---	1,916	1,805	---	---	111
Technical -----	1,832	1,794	---	---	38

<sup>1</sup> 49 private schools and 12 publicly supported schools, of which 10 were in the Colony and 2 in Ashanti.

<sup>2</sup> 30 private schools and 4 publicly supported schools of which 3 were in the Colony and 1 in Ashanti.

The Education Department's report for 1952 reflects the fact that in that year the Colony, which had included the Southern Section of Togoland, was divided into two sections: the Colony and Trans-Volta Togoland, which consisted of the Southern Section of Togoland and a small part of the Gold Coast. This report presented a great variety of regional statistics and showed that the number of schools, both publicly aided and unaided, and pupils in each of the sections was as follows:<sup>12</sup>

<sup>11</sup> Gold Coast. *Report on the Education Department for the Year 1951*. loc. cit. pp. 34-37. The source indicates that statistics pertaining to private schools, which are incorporated in the data, were incomplete.

<sup>12</sup> Gold Coast. *Annual Report of the Education Department for the Year 1952*. loc. cit. pp. 41, 42.



*Schools*

	Total	Colony and T-V-T <sup>1</sup>	Colony	T-V-T	Ashanti	Northern Terri- tories
<i>Total</i> -----	3,932	2,709	2,043	666	1,112	111
Primary -----	3,115	2,118	1,575	543	901	96
Middle -----	718	512	398	114	195	11
Secondary -----	53	44	39	5	8	1
Teacher training ---	22	13	10	3	7	2
Technical -----	24	22	21	1	1	1

*Pupils*

	Total	Colony and T-V-T	Colony	T-V-T	Ashanti	Northern Terri- tories
<i>Total</i> -----	429,864	308,064	237,035	71,029	113,739	8,061
Primary -----	337,268	240,433	182,912	57,521	90,045	6,790
Middle -----	81,653	58,343	45,702	12,641	22,289	1,021
Secondary -----	7,009	6,392	5,831	561	569	48
Teacher training ---	2,152	1,285	1,059	226	737	130
Technical -----	1,782	1,611	1,531	80	99	72

<sup>1</sup> Trans-Volta Togoland.

It is clear that at every level the coastal area (the area that constituted the Colony including the Southern Section of Togoland in 1951 and the Colony and Trans-Volta-Togoland in 1952) had many more schools and pupils than Ashanti. Ashanti in turn had many more than the Northern Territories (including in both years the Northern Section of Togoland). In these strictly quantitative terms there were still three district educational areas.

However, when school enrollments are related to total population, a different picture emerges. The following tabulation shows the percentage distribution of the total population in the Gold Coast (including the Trust Territory of Togoland) as reported in the 1948 census and the percentage distribution of total enrollments in primary, middle, and secondary schools in 1951 (as available) and 1952.

The most striking feature revealed by the statistics is the Northern Territories' tiny proportion of enrollments at all levels and the great differences between this area and the rest of the country. Whereas the area contained about 25 percent of the Gold Coast's total population, it had enrolled in its schools only 2 percent of the country's primary students, 1 percent of its middle school students, and less than 1 percent of its secondary school students.

Area <sup>1</sup>	Population in 1948	Enrollments in 1951		Enrollments in 1952		
		Pri- mary	Middle ondary	Pri- mary	Sec- Middle ondary	
Total -----	100.0	100.0	100.0	100.0	100.0	100.0
Colony and T-V-T <sup>2</sup> --	55.0	67.2	71.4	--	71.3	71.5
Colony -----	43.0	--	--	--	54.2	56.0
T-V-T -----	12.0	--	--	--	17.1	15.5
Ashanti -----	20.0	30.6	27.5	--	26.7	27.3
Northern Territories --	<sup>3</sup> 25.0	2.2	1.1	--	2.0	1.3

<sup>1</sup> As of 1952.

<sup>2</sup> Trans-Volta-Togoland.

<sup>3</sup> Including the Northern Section of Togoland.

The statistics also reveal the disparities between Ashanti and the coastal area at the secondary level. In 1952 Ashanti had a much lower percentage of secondary school enrollments (8 percent) than of population (20 percent), while the coastal area had a much higher percentage of secondary school enrollments (91 percent) than of population (55 percent); and within this area the section that made up the Colony in 1952 enrolled about 83 percent of the secondary school pupils although it contained only 43 percent of the 1948 population!

At the primary and middle school levels, however, both Ashanti and the coastal area had a higher percentage of total enrollments than of total population. The ratio both of Ashanti's percentage of primary school enrollments in 1951 (30.6) and its percentage of middle school enrollments in 1951 (27.5) to its percentage of population in 1948 (20.0) is more than 1.3 to 1. Ratios based on the 1952 data (26.7 and 27.3) are also more than 1.3 to 1. The comparable ratios for the coastal area for both 1951 and 1952 do not exceed 1.3 to 1 (67.2, 71.4, 71.3, and 71.5 to a population percentage of 55.0). Moreover, within this area in 1952, Trans-Volta-Togoland had more primary school places in relation to population (17.1 percent to 12.0 percent) than had the Colony (54.2 percent to 43.0 percent).

Thus there appears to be no basis for concluding that at the time of self-government the Colony, including the Southern Section of Togoland, had more primary and middle school places in relation to its total population than had Ashanti. At the elementary school level the gap between the two sections had apparently been closed. The Gold Coast at the time of self-government consisted not of three very distinct spheres but of two: (1) the Northern Territories and (2) the southern half of the country, within which there were still marked differences in provision of secondary education.

## II. THE NKRUMAH YEARS: 1951-66

The new predominantly African government that took office in 1951 clearly considered educational development one of its highest priorities. It owed its election in large measure to its pre-1951 promises to extend educational opportunities, and was well aware of the "insatiable demand for increased school facilities,"<sup>1</sup> which was, of course, rooted in the individual African's view of formal education as the pathway to employment in the modern sector. Beyond these immediate political pressures, however, the leaders of the new government evidently held a firm conviction that formal education was the primary means of bringing about change and development. As the then Minister of Education put it—in a phrase of the type that was to echo throughout independent Africa in the 1960's—"the Government regards education as the key to our people's progress."<sup>2</sup>

### The Accelerated Development Plan

Whatever the reasons, the new government very early (August 1951) approved the Accelerated Development Plan for Education, 1951—a new plan for rapidly expanding the entire pre-university educational system of the Gold Coast from 1952 through 1957—and "decided to allocate to it a large part of the funds available for the general development of the country."<sup>3</sup> Provision both for carrying out some of the objectives of the Accelerated Development Plan and also for developing local facilities for higher education was made in the First Development Plan (a capital development plan initially intended to cover a 5-year period, but extended to cover a 6-year period, fiscal years 1951-52 through 1956-57) and in the subsequent Consolidation Development Plan (another capital development plan covering fiscal years 1957-58 and 1958-59).

#### *Provisions for Expansion*

*The Colony and Ashanti.*—The Accelerated Development Plan contained separate programs for the Colony and Ashanti and for the Northern

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<sup>1</sup> Gold Coast. *Accelerated Development Plan for Education, 1951*. Accra: Government Printing Department, 1951. P. 2.

<sup>2</sup> *Ibid.* Foreword.

<sup>3</sup> *Ibid.*

Territories. That for the Colony and Ashanti called for developing all levels and types of education within the school system—primary, middle, secondary, and technical education and teacher training.

It is clear, however, that the Government's major objective was to expand as rapidly as possible the system of publicly supported 6-year primary schools so that *every* child of school age could attend school and do so without paying tuition fees. The plan declared: "The aim is to provide as soon as possible a six-year basic primary course for all children at public expense."<sup>4</sup> Although the plan did not clearly state a target date for achieving universal free primary education in the Colony and Ashanti, one section of it implies that the Government hoped this goal might be attained by 1957. This section indicates it had been estimated that if full enrollment in the lowest class were achieved each year total primary school enrollment would increase year by year to a maximum of 405,000, the estimated total population of primary school age in the Colony and Ashanti in 1957.<sup>5</sup>

To implement the new policy two major steps were to be taken as of January 1, 1952. All the formerly unaided primary schools that the Department of Education deemed necessary were, like all the existing assisted and designated schools, to become "approved" schools eligible for public funds.<sup>6</sup> In other words, they were to be brought into the public system. Secondly, tuition fees were to be abolished in all publicly supported primary schools.

The plan clearly indicated that a large number of "pupil" teachers—individuals who had completed 10 years of schooling and had received no training as teachers—would have to be hired to help staff the classrooms until trained teachers could be produced. The Government rejected the "alternative of waiting for trained teachers to be produced" for this "would give nothing in place of something."<sup>7</sup>

At the same time, the Accelerated Development Plan called for rapid expansion and reorganization of teacher training to accelerate the output of trained teachers. The traditional 4-year Certificate A course for middle school graduates (10th grade graduates) was to be temporarily abandoned. All middle school graduates entering teacher training would instead take the 2-year Certificate B course, which had been introduced in the immediate post-World War II period. In addition, an entirely new 2-year course to allow selected Certificate B teachers to earn the Certificate A would be introduced. The Certificate A colleges offering the new 2-year Certificate A (Post-B) course rather than the traditional 4-year Certifi-

<sup>4</sup> Ibid. p. 1.

<sup>5</sup> Ibid. p. 14.

<sup>6</sup> The term "approved" was subsequently applied to all primary and middle schools other than Government schools receiving public funds. The terms "assisted," "designated," and "non-designated" ceased to be used. Unaided schools were known as private or "permitted" schools.

<sup>7</sup> Ibid. p. 3.

cate A course could double their output from the same number of places. Ten entirely new Certificate B colleges would be built and six others expanded to double their capacity.

Marking the beginning of a new policy stressing English, which was to prevail throughout the period of Nkrumah's rule, the plan declared that at the beginning of the primary course instruction would be given in the local vernacular while English was taught as a subject. As soon as possible a transition from the vernacular to English as the medium of instruction was to begin, and in the upper primary classes students were to receive all instruction in English.

The plan estimated that if some 90 percent of the children who completed primary school in the Colony and Ashanti entered middle school, the total middle school enrollment in these areas would increase to 140,000 or 144,000 in 1957 and 240,000 in January 1961. But the Central Government evidently did not consider this level of education a high priority in allocating its funds. The plan declared that *after* the Central Government had met its commitments to all other levels and types of education each year, it would make the remaining sum available for salaries of teachers in *existing* middle schools. Grants were to be paid only if the allocation of trained teachers was approved by the Education Department. This was to check "the unwise dilution of the staff of existing good schools to supply staff for new middle schools, the need for which is not established."<sup>8</sup> *New* middle schools were to be entirely the financial responsibility of the Local Authorities.

The plan provided for some expansion and improvement of secondary education. The Central Government was to build 15 new secondary day schools in urban localities and also extend financial assistance ("encouragement") to existing unassisted secondary schools that met certain conditions. The plan also called for expanding and diversifying the program of technical education. The Central Government was to build four technical institutes, at Accra, Tarkwa, Kumasi, and Sekondi-Takoradi, and three secondary technical schools, while converting the Government Technical School at Takoradi into a secondary technical school.

*The Northern Territories.*—The very meagre supply not only of trained teachers but of potential teachers severely limited plans for accelerated development in the Northern Territories. Except for one small mission institution run by the White Fathers, the North had only one teacher-training college (at Tamale) and its only source of supply was one boys' middle school (also at Tamale). The chief need was to increase the middle school output as quickly as possible to provide Northern trainees for teaching, for only Northern teachers could be used in lower primary classes where the vernacular served as the medium of instruction. This in turn

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<sup>8</sup> *Ibid.* p. 4.

meant recruiting additional middle school teachers from the Colony and Ashanti and making service in the North, which was "not popular with teachers of Southern extraction,"<sup>9</sup> sufficiently attractive to keep them contented. Middle schools were to be established as quickly as possible, and new training colleges, including one at Pusiga, were to be established as candidates became available from the increased output of middle schools. Primary schools were to be opened as fast as teachers became available, but the most that seemed possible was opening 10 new primary schools in each of the first 5 years of the plan period and 20 schools in each succeeding year. Secondary schools, other than the single existing one, would be opened as soon as pupils became available. The plan contained no enrollment projections for the Northern Territories.

#### *Administrative and Financial Provisions*

Much more than a series of proposals for merely expanding educational facilities, the Accelerated Development Plan provided for fundamental changes in administering and financing the formal educational system.

*Absorption of unaided schools.*—First of all, as mentioned previously, the plan called for absorbing into the public system all the unaided primary schools that were deemed necessary. In fact, at the beginning of 1952, almost all the unaided schools became "approved" schools eligible for public funds and were thus taken into the public system. The plan also called for absorbing into the public system some of the previously unaided secondary schools, and by 1953 the former balance between public and private secondary schools had been reversed.

*Local responsibility for elementary education.*—Secondly, to achieve one of the Government's fundamental objectives—making primary and middle school education to the fullest extent possible a local government concern—the plan assigned new responsibilities for both managing and financing these schools to the Local Authorities.

More specifically, the plan provided that no new primary or middle school opened by a denominational religious body or by a person or group of persons would be eligible for assistance from public funds unless prior approval for its opening had been obtained from the Local Authority concerned; in addition, the plan stated the expectation that "considerable numbers of educational unit schools" (schools managed by various organizations, most of which were religious bodies) would be "handed over to Local Authorities."<sup>10</sup> Most of the new primary and middle schools opened as public schools after 1951 were Local Authority schools—schools managed by Local Authorities—and many of the primary schools taken into the public system after 1951 became Local Authority schools. Since the new local

<sup>9</sup> Ibid. p. 8.

<sup>10</sup> Ibid. p.1.

Authorities, which were established under the 1951 Local Government Ordinance to replace the former Native Authorities, were in many cases unable to take over management of their new or newly acquired schools, a considerable number of the schools were in fact managed on behalf of the Local Authorities by "Educational Units" or by the Department of Education's District Education Officers. Eventually, after independence, Local Authority primary and middle schools (including those managed for them by Educational Units) outnumbered those of the Educational Units.

The plan also provided that, in the Colony and Ashanti, financing of public (approved) primary and middle schools was to be the joint responsibility of the Central Government and the Local Authorities, and laid down entirely new methods of financing public education at these levels that placed a heavier burden upon the local governments. The Central Government was to provide a considerable percentage of the total cost of teachers' salaries in approved primary schools (90 percent in 1952 and 1953, 75 percent in 1954 and 1955, and 70 percent in 1956 and 1957). The Local Authorities were to provide the remainder. The Central Government was to make grants for teachers' salaries in public middle schools in operation in 1951. The Local Authorities were to meet the total cost of salaries, less fees, in all other (i.e., all post-1951) public middle schools. In addition they were to erect all new public primary and middle school buildings, maintain all public primary and middle school buildings, and provide furniture and equipment for all these schools.

The Local Authorities, numerous, small, and limited in financial resources, were never able to make their assigned contribution toward primary school salaries. Later, in 1962, the Central Government assumed responsibility for the full cost of salaries in all public middle and primary schools, leaving the Local Authorities responsible only for buildings and equipment.

In the Northern Territories, on the other hand, the Central Government continued to provide most of the funds for developing elementary education. In this area (but not in the Colony and Ashanti) it made grants for constructing school buildings and for providing school equipment.

### **Developments: 1952-59**

#### *Elementary Education*

As planned, the public primary school expansion program began at the start of school year 1952. Tuition fees were abolished in all public primary schools as of January 1. Parents remained responsible only for uniforms, textbooks, and school materials. Most of the formerly unaided primary schools (perhaps as many as 1,400) were brought into the public system. Overnight, one of the striking features of the pre-1952 primary system—its large sector of unaided schools—disappeared. In addition, a large num-

ber of entirely new public primary schools (perhaps almost 600 of them) were established. The number of public primary schools almost tripled. A large number of untrained pupil teachers came in to help staff the classrooms, and the proportion of trained teachers in primary and middle schools dropped sharply from more than 52 to 28 percent. The unreported percentage in primary schools alone was undoubtedly even lower than this.

By extensively using churches, bamboo sheds, and other temporary forms of construction as classrooms, about 130,000 children were enrolled in Primary Class 1 in all public primary schools in 1952. This was more than double the number of Class 1 pupils in *all* primary schools (public and private) and more than four times the number of Class 1 pupils in *public* primary schools the year before. Total public primary school enrollments more than doubled, rising from 154,000 in 1951 to 335,000 in 1952. More of the increase (181,000) resulted from creating entirely new places than from absorbing into the public system the formerly unaided schools. Details appear in the following tabulation showing the number of pupils in the total *primary course* and in Primary Class 1 in public and private schools in 1951 and 1952.<sup>11</sup>

	1951	1952	Increase or decrease
Primary course	234,492	337,268	102,776
Public	154,360	335,094	180,734
Private	80,132	2,174	-77,958
Primary Class 1	59,739	132,045	72,306
Public	31,614	130,527	98,913
Private	28,125	1,518	-26,607

Enrollments continued to rise during the First and Consolidation Development Plans (the two capital development plans that covered the years from 1951-52 through 1958-59). By 1957, the year of independence, the number of pupils in public primary schools—approximately 456,000—was almost three times the comparable 1951 figure of about 154,000 and also well above the plan's estimate of 1957 public primary school enrollment in the Colony and Ashanti alone.

Public middle school enrollments did not increase as much as the plan had estimated. They went up from about 66,000 in 1951 to about 116,000 in 1957, an increase of 75 percent. During that period, however, all middle schools more than doubled and the number of all middle school pupils almost doubled.

<sup>11</sup> Gold Coast. *Report on the Education Department for the Year 1951*. Accra: Government Printing Department, 1953. PP. 34, 36.

Gold Coast. *Annual Report of the Education Department for the Year 1952*. Accra: Government Printing Department, 1954. pp. 41, 43, 47.

Ghana. The Office of the Government Statistician. *Education Statistics 1959*. Accra: The Office, 1959. P. 3.



### *Teacher Training*

In the meantime, the Government had, as planned, reorganized the teacher-training courses and had expanded the teacher-training college facilities in an effort to turn out much larger numbers of trained teachers and thus restore the balance between the trained and untrained teachers serving in the elementary schools. It had opened 10 new colleges. Enrollments in teacher-training courses had increased steadily and in 1957 exceeded the Accelerated Development Plan's target for that year. The annual output of trained teachers had increased steadily from about 700 in 1951 to about 1,600 during the period from 1955 through 1957 and was to reach about 2,200 in 1960. The proportion of trained teachers in public primary and middle schools, which had dropped precipitously with the introduction of the plan in 1952, did improve. It rose steadily from 26 percent in 1952 to 52 percent in 1959—the first year in which trained teachers once again outnumbered untrained ones—and to 53 percent in school years 1960 and 1960-61.<sup>12</sup>

This improvement was not, however, all that could have been expected from the expansion of teacher training. As many newly trained teachers entered the schools, many serving teachers left. In the years from 1956 through 1960 alone, nearly 3,000 resigned to take positions in other professions. The exodus apparently increased year by year during this period and progressively counteracted the effects of increasing the number of teacher-training college graduates. At the end of school year 1956 the training colleges turned out 1,510 trained teachers. The number of trained teachers added to the public primary and middle school teaching staff the following school year was 917 (or 61 percent of the output the previous year). At the end of school year 1960, 2,223 received teaching certificates, but the following school year (1960-61) the trained staff increased by only 512 (or 23 percent of the output). The situation was obviously critical. Late in 1960 the Government announced new increased teachers' salary scales that apparently had the desired effect of reducing the exodus from the profession.

### *Secondary and University Education*

The public secondary school system expanded considerably, partly through absorbing formerly unaided schools. In 1952, 10 formerly private unaided secondary schools accepted a new modified form of Central Government assistance called "encouragement," which was intended to provide adequate qualified staff and suitable premises and equipment for formerly unaided schools that met modest requirements; and three others became assisted schools. Thus in 1952 alone the number of publicly supported

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<sup>12</sup> Until 1960, the school year in pre-university schools ran from January to December.

secondary schools doubled as the 13 older institutions in existence in 1951 were joined by the 10 "encouraged" and 3 new assisted schools. In that year, 72 percent of all secondary school students, as compared with 43 percent the previous year, were attending public schools. By 1957 the number of public secondary schools had risen to 38. Public secondary school enrollments had more than tripled, rising from 2,900 in 1951 to 9,900 in 1957—a figure considerably larger than planned. The 15 secondary day schools and the 3 secondary technical schools had not, however, been built.

The two fledgling institutions of higher education, the University College of the Gold Coast (which opened in 1948 and was renamed the University College of Ghana in 1957) and the Kumasi College of Technology (which opened in 1952) received a considerable portion of the Government's education expenditures during the 1950's. By 1959 they enrolled more than 1,100 students.

#### *Overview*

At a cost of equivalent to more than £17½ million spent on education during the First and Consolidation Plan periods (1951-59) and rising recurrent expenditures, Ghana achieved a considerable expansion of every level of the public system. As an overview of these developments, the following tabulation shows enrollments in public institutions of various levels and types in 1951, before the Accelerated Development Plan was launched; in 1957, the year of independence and the year in which the 6-year period of the extended First Development Plan period ended; and in 1959, the year in which the period of the Consolidation Development Plan ended.

	1951	1957	1959
Total -----	226,218	589,153	624,575
Primary -----	154,360	455,749	465,290
Middle -----	66,175	115,831	139,984
Secondary -----	2,937	9,860	11,111
Technical -----	622	3,057	2,782
Teacher training -----	1,916	3,873	4,274
University -----	208	783	1,134

By the late 1950's Ghana had already carried out a major primary school expansion program and had nearly half a million children in her public primary schools. It probably seemed at this time that universal primary education in the south was within reach and that before long education at this level could be improved by replacing all untrained with trained teachers. The Government had also given a high priority to developing Ghana's local higher education institutions. These two institutions were still having difficulties recruiting enough qualified students from the secondary schools; at the same time the expansion of primary and middle school education was increasing the number of students wishing to enter secondary schools. Secondary education, despite its considerable expansion, clearly seemed to be the bottleneck in the system.

## The Second and the Seven-Year Plans

### *The Second Development Plan*

In 1959 the Government launched a new 5-year capital development plan, the *Second Development Plan 1959-64*, to cover the 5 fiscal years 1959-60 through 1963-64. Not surprisingly, its educational program gave a high priority to secondary education.

... it was the aim in the First and Consolidation Development Plans to cater for the vast expansion in primary and middle schools and to provide facilities for higher education. It is now necessary in this Plan to place the emphasis on the expansion of secondary education.<sup>13</sup>

The aim was to provide secondary school places for approximately 10 percent of the number of pupils in each Region potentially eligible to enter secondary schools. This meant that annual intake into Government-aided secondary schools would have to be increased from 2,200 to as near 6,000 as possible. The increase was to be achieved by (1) opening 34 new schools constructed with Government funds, (2) opening other new schools constructed by the Ghana Educational Trust, which had been endowed by the Cocoa Marketing Board with a sum of 2.5 million pounds for the purpose of establishing secondary schools, (3) expanding or rehousing 18 Government-aided schools, and (4) recognizing as efficient and extending Government aid to certain secondary schools that were not within the public (Government-aided) system. More than half of the Central Government's capital expenditures on education under the plan was to be devoted to secondary education and specifically to building the 34 new schools and expanding or rehousing existing schools.

The plan also called for expanding and reorganizing the technical education system to train larger numbers and to introduce more advanced courses. It also provided for establishing a technical teacher-training program at Kumasi, which was to be the first of its kind in West Africa.

The plan indicated that during the 5-year period a University of Ghana, of which the University College and the College of Technology would be constituent colleges, would be founded; and it provided for spending £G3.6 million on further construction at the two institutions.

Without stressing it as a landmark decision in middle Africa, or a major undertaking, the plan stated the objective at the elementary level as follows: "The aim during the plan period will be to provide free and compulsory Primary and Middle School education throughout the country."<sup>14</sup>

<sup>13</sup> Ghana. *Second Development Plan 1959-64*. Accra: Government Printer, 1959. P. 37.

<sup>14</sup> *Ibid.* p. 35.

Continuing the policy of special Central Government financial assistance to the poorer northern part of the country, the plan allocated a sum of £G510,000 for constructing primary and middle schools in this area. In teacher training the aim during the same period would be "to eliminate untrained teachers in schools in Ghana."<sup>15</sup> The plan, however, called for opening only four new teacher-training colleges, which together would provide only 660 new places and thus increase the total enrollment (then 4,200) in the colleges by a bit more than 15 percent. The statements and objectives suggest an assumption at the time that Ghana was already fairly close to universal elementary education and to the replacement of untrained teachers in the elementary schools. The magnitude of the effort that would be required was not to become clear until after the census of 1960 revealed a much larger school-age population than had ever previously been estimated.

The Central Government's capital expenditures on specific levels and types of education during the plan period were to be as follows:<sup>16</sup>

	<i>Ghanaian pounds (in 000's)</i>
<i>Total</i> -----	13,351 <sup>1</sup>
Primary and middle schools -----	510
Secondary schools -----	6,915
Technical institutions -----	1,500
Teacher-training colleges -----	746
University institutions -----	3,600
Schools for the handicapped -----	80

<sup>1</sup> Excludes expenditures on behalf of statutory bodies and on district offices and housing which totaled £G794,000.

### *The Seven-Year Plan*

By February 1962 the Government had decided to suspend the Second Development Plan and to launch a new and ambitious 7-year capital development plan to cover the 7 fiscal years 1963-64 through 1969-70.<sup>17</sup> In this plan, the *Seven-Year Plan for National Reconstruction and Development*, the Government declared that in education the stage had been reached "where educational policy must increasingly concern itself with the second great purpose of education, the teaching of skills and other attainments that are needed for the running of a modern economy."<sup>18</sup>

The plan's educational program sought to do this in two ways. First, it

<sup>15</sup> Ibid. p. 36.

<sup>16</sup> Ghana. *Second Development Plan. Estimates of Expenditures for the Year 1959-60*. Accra: Government Printer, 1959, pp. 11-16.

<sup>17</sup> *Ghana Today*, 5:26:2, Feb. 14, 1962.

<sup>18</sup> Ghana. *Seven-Year Plan for National Reconstruction and Development, Financial Years 1963/64-1969/70*. Accra: Office of the Planning Commission, 1963. P. 142.

called for reorganizing elementary education and reorienting its upper cycle. At the time only a beginning had been made in reducing the length of the basic general elementary course from 10 to 8 years. The plan called for reducing it further from 8 to 6 years<sup>19</sup> and supplementing it with a 2-year course at a "continuing school" in which students would be introduced to basic skills of a more specifically economic nature to fit them for life as members of a modern labor force. The responsibility for implementing this decision—meeting the great cost of constructing a larger number of continuing schools and re-equipping existing middle schools with technical education facilities—was assigned to the Local Authorities, which had already had great difficulties in meeting their responsibilities.

To turn out more elementary school teachers, the plan called for expanding teacher-training college enrollments from 5,000 to 21,000 and output from 2,000 to 6,000 by 1970. About 31,000 teachers would be produced during the plan period. According to the plan itself, however, it was expected that even with the shortened course about one million more children would be enrolled by 1970 and 37,000 additional teachers would be required; and it was recognized that shortening the course would depend upon a significant upgrading of the teaching staff in the primary schools by replacing untrained pupil teachers with trained ones.

Secondly, the Seven-Year Plan called for laying especially heavy emphasis on expanding secondary education and postsecondary technological and managerial training in technical institutions and universities to meet the needs of the expanding industry, agriculture, and other sectors of the economy foreseen under the plan. Secondary school enrollments were to be increased at a much higher rate than in the past. The intake was to rise to 10,000 in 1964 and 22,000 in 1970, total enrollment to 35,000 in 1964 and 78,000 in 1970, and output to 3,500 in 1964 and 14,000 in 1970. New technical institutions were to be established and larger numbers were to be trained as senior technicians who would fill the positions midway between those held by engineers and managers and skilled laborers.

Over the plan period the Central Government proposed to invest in educational facilities a total of £664 million distributed as follows: Elementary education—1.8; secondary education—30.5; teacher training—17.3; technical education—4.6; universities—9.8. And it was to assume a new and heavy recurrent financial burden: from 1963, school textbooks would be supplied free to elementary school students so that children from low income families would no longer find purchase of them an obstacle to educational progress.

<sup>19</sup> If the elementary course was not shortened, the plan explained, nearly two million additional children would be enrolled in elementary schools during the 7 years of the plan and none would be available to the labor force before 1970. Such an increase in the elementary school population could not be supported by the economy at the same time as an attempt was being made to implement a program of rapid economic development.

## Developments: 1960-66

Despite the emphasis given to secondary education in the Second Development Plan, elementary education was to become the area of greatest concern and change in the years following the mid-1959 launching of the plan. A year later, in mid-1960, the Minister of Education declared in the National Assembly that universal and compulsory education at the primary and middle school level was the first objective of the Government's educational policy. At this time, before the 1960 census data were available, the Minister reported that there were more than 600,000 children in primary and middle schools and that Ghana had already gone a considerable way toward achieving universal primary education. He estimated it would probably be necessary to provide places for about 300,000 more children. On a later occasion he repeated this estimate and said that on this basis at least 1,000 more schools and several thousand more teachers would be needed. Progress was evidently to be slow. The Minister announced that the Ministry of Finance had agreed to provide funds for the teachers' salaries in 100 new or additional schools each year, provided the Local Authorities contributed 10 percent rather than the previous 5 percent of these salaries and could provide the buildings required.

### *"Fee-Free and Compulsory" Elementary Education*

In December 1960, however, once again taking what could only be regarded as a popular move, President Nkrumah announced that fee-free and compulsory primary and middle school education would be introduced in September 1961, at the beginning of school year 1961-62. This was, in effect, an announcement of the massive new program of elementary (primary and middle) school expansion that was to begin in 1961-62 and continue throughout the remainder of the Nkrumah regime.

Presumably the figures from the 1960 census, which were not yet published, had been taken into account and the size of the proposed undertaking was known. These figures showed that the school-age population was much larger than ever previously estimated, and that the achievement of universal elementary education would require a much greater effort than had been apparent either at the time of independence, at the time the 5-year plan was launched, or in mid-1960. In August 1961 the Minister of Education told the National Assembly that compulsory education would probably mean trebling the school population. A thousand new schools, a shift system, and many untrained teachers, who would once again outnumber the trained ones, would be needed to cope with these numbers.

At the beginning of school year 1961-62 public middle school education became fee-free just as public primary school education had become fee-free in January 1952. (Parents of primary and middle school pupils still had to purchase school books, but they were to be relieved of this financial burden 2 years later when the Government in October 1963 began to

supply free textbooks to primary and middle school pupils.) When public middle school education became fee-free, most of the formerly private middle schools were taken into the public system, and at the same time the Government assumed responsibility for paying all teachers' salaries in all public primary and middle schools, relieving the Local Authorities of the responsibility to meet part of the salary bill.

Shortly afterwards, on November 15, 1961, the new Education Act, 1961, went into effect. This provided for compulsory education of a duration to be determined by the Minister of Education. No Ministry publication, however, reported that the Minister had determined the duration of compulsory education, and in fact only a few rare Ministry publications of the mid-1960's stated that education was compulsory for an 8-year period. In any case, it was impossible to provide facilities for all children and thus to enforce any compulsory education law throughout the country. Apparently enforcement was limited to areas of adequate school facilities.

In the meantime steps had been taken to make room for a much larger number of public primary and middle school pupils in 1961-62. For this school year almost 1,800 new primary schools and more than 300 new middle schools opened. More than 3,400 new teachers, many untrained, were working in their classrooms. More than 231,000 children enrolled in Primary Class 1 alone, in contrast to about 139,000 the previous year. Where the needed additional classrooms were not available (not provided by Local Authorities, voluntary contributions, or communal labor), a shift system was put into effect, and two classes, each with its own teacher, used the same quarters, one in the morning and the other in the afternoon. More than 800 primary and middle schools had classes operating on this basis at the beginning of 1961-62.

A still larger number of children, about 257,000, began their primary school course in 1962-63. The expansion continued. By 1965-66 some 617,000 new primary and some 109,000 new middle school places had been provided. Well over a million children—more than twice the number in 1960-61—were attending public primary schools and more than 267,000, public middle schools.

### *Teacher Training*

In 1961-62, as in 1952, the Government had gone ahead with its program of elementary school expansion before enough trained teachers were available to handle the expected increase in enrollments, recognizing that the result would be a "dilution" of the staff with untrained pupil teachers and a lowering of standards. In the 1960's, as in the 1950's, an expanded program of teacher training began not before but at about the same time as much larger numbers of students entered the schools.

The training program of the 1960's, however, was to proceed along different lines with quite different consequences. In 1952 the Government had eliminated the 4-year Certificate A course and had implemented a

crash program to turn out large numbers of Certificate B teachers who had only 2 years of training following middle school. This program resulted in a steady increase in the output of trained teachers and gradually restored the earlier balance between trained and untrained teachers in the primary and middle schools.

In the 1960's the Government pursued a different policy. At the end of 1961, soon after introducing "fee-free compulsory" education, the Government decided to do away with the 2-year Certificate B course (which it felt had been inadequate in many cases) and replace it with the 4-year Certificate A course for those who had completed middle school. The last Certificate B course ended in 1963. From the beginning of school year 1962-63, all middle school leavers entering teacher training took the Certificate A course. The substitution of the 4-year for the 2-year course meant, of course, that it would take twice as long to turn out a trained teacher and that a training college would need twice the number of places to turn out each year the same number of Certificate A as Certificate B teachers.

Nevertheless, there was no immediate dramatic expansion of the teacher-training system. The number of training colleges increased from 31 in 1960-61 to 48 in 1964-65, admissions from 2,400 to 4,500, and total enrollments from 4,500 to 10,200. But this steady growth, measured against the rate of expansion of the elementary system itself, was moderate and inadequate. At the beginning of 1965-66 the Government, taking an "emergency measure," opened 35 new training colleges to permit admission of 3,000 additional students. This brought the total number of colleges to 83 and their enrollments to more than 15,000. Since most students in the colleges were taking the 4-year Certificate A course, 4 full years had to elapse before major increases in admissions resulted in major increases in graduates. The number of students in their final year of training did not exceed 3,000 until school year 1967-68 and did not exceed 5,000 until school year 1968-69.

The annual output of trained teachers in the 5 years from 1962 through 1966 varied between 1,600 and 2,000, never reaching the peak of about 2,200 achieved in 1960 and 1961. Every year but one during the 6-year period 1961 through 1966, the output of newly qualified teachers fell far short of the number of teachers who had to be added to the staff for the following school year, as the tabulation shows.

	<i>Increase in total number of primary and middle school teachers</i>	<i>Output of trained teachers at end of previous school year</i>
1961-62	3,421	2,164
1962-63	7,275	1,662
1963-64	1,757	2,001
1964-65	6,617	1,624
1965-66	3,804	1,805
1966-67	4,673	2,008



During the 6-year period only 11,264 individuals passed their teachers certificate examinations, but the total number of primary and middle school teachers increased by 27,547. Expansion of the elementary system and its teaching staff completely outpaced the output of trained teachers from the training colleges. The budgets presented by both pre- and post-coup governments declared: "With the implementation of the fee-free and compulsory education and the scheme of free supply of text-books and school materials, the total number of primary schools has increased out of all proportion to the output of trained teachers."<sup>20</sup>

The annual output from the colleges, limited as it was, was not fully reflected in the composition of the teaching staff. As newly trained teachers entered the schools, other trained teachers left them, either for further teacher training or for other studies or occupations. In most years the increase in the number of trained teachers in the primary and middle schools was about 60 or 70 percent of the number of teachers awarded teaching certificates at the end of the previous school year.

In the absence of enough trained teachers, a large number of new pupil teachers were brought into the primary and middle schools to help staff their classrooms. The number of pupil teachers increased by almost 19,000 in the final 5 school years of the Nkrumah regime. The balance between trained and untrained teachers in public primary and middle schools—53 to 47 percent in 1960-61—began to swing back again in 1961-62 and continued to deteriorate. By 1965-66 the percentage of untrained teachers had risen to a startling 65 percent.

### *Secondary and University Education*

Secondary school and university enrollments increased at an even greater rate than elementary school enrollments during the early 1960's, although the number of pupils was, of course, comparatively very small. In 1965-66, enrollments in both secondary schools and the universities were 3.8 times the enrollments in 1959, while those at the primary school level were more than twice and those at the middle school level less than twice the 1959 totals.

The public secondary school system had expanded very rapidly in the early 1960's more through absorbing formerly private schools and schools built by the Ghana Educational Trust than through constructing new schools.<sup>21</sup> The total number of public secondary schools increased from 39 in 1959 to 105 in 1965-66, and enrollments rose from some 11,000 to some 42,000 in the same period. The entry target that had been set in 1959 in the Second Development Plan (5,660 by January 1965) had already been

<sup>20</sup> Ghana. *The Annual Estimates for 1965*. Accra: Government Printing Department, 1964? I:VI:4. and Ghana. *The Annual Estimates for 1966-67*. I:VIII:13.

<sup>21</sup> Of 66 schools added between 1959 and 1965-66 it seems that at least 24 were Ghana Educational Trust schools and 25 formerly private institutions.

exceeded at the beginning of school year 1962-63. At this level, too, expansion outpaced the output of Ghanaian teachers. Speaking during the 1961-62 school year, the Minister of Education indicated that overseas recruitment and use of Peace Corps volunteers would mean that, for the first time since the rapid expansion of secondary education began, there would be enough graduate teachers. The following year, however, it was officially acknowledged that the lack of qualified Ghanaian teachers continued to be a major obstacle to the expansion program. Establishment of schools in remote areas was far ahead of the rate at which graduate teachers were being produced by the universities.

During the same period higher education was reorganized and greatly expanded. In 1961 the two existing institutions, the University College of Ghana, which had been in special relationship with the University of London and prepared students for that university's degrees, and the College of Technology, Kumasi, became full universities, the University of Ghana and the Kwame Nkrumah University of Science and Technology. An entirely new institution, the University College of Cape Coast, was established to train secondary school teachers. Receiving a considerable portion of the Central Government's total educational budget, these institutions very rapidly expanded their enrollments in the years preceding the 1966 coup. The number of students rose from 1,184 in 1960-61 to 4,267 in 1965-66.

### At the End of the Nkrumah Years

By 1965-66, the school year in which Nkrumah was deposed, the public educational system had achieved phenomenal growth both by absorbing formerly private schools and building many new ones. The 1951 system of fewer than 1,700 schools enrolling about 226,000 children had become a structure of almost 11,000 schools enrolling almost 1.5 million. Enrollments at every level had expanded as follows:

	1951 <sup>1</sup>	1965-66
Total -----	226,218	1,471,407
Primary -----	154,360	1,137,495
Middle -----	66,175	267,434
Secondary -----	2,937	42,111
Technical -----	622	4,956
Teacher training -----	1,916	15,144
University -----	208	4,267

<sup>1</sup> Until 1960, the school year in pre-university schools ran from January to December.

In 1965-66 university enrollments were 20 times and secondary enrollments 14 times what they had been in 1951; while those at the primary and middle levels were 7 and 4 times the 1951 figures.

Education had become tuition free at every level of the public system, and the Government was providing free textbooks for all children in public primary, middle, and secondary schools.

At the elementary level, however, untrained teachers made up 65 percent of the total teaching staff; and at the secondary level Ghana remained heavily dependent upon expatriate teachers. Throughout the school system education remained almost entirely academic. More and more pupils were leaving the middle schools after receiving only a general education. They were adding to the number of the unemployed and creating a demand for more places in the secondary sector. Although the latter had grown a great deal and in 1965-66 enrolled a higher percentage of all public school students and could take in a higher percentage of elementary school leavers than in the past, nevertheless both percentages were very small, and secondary education, which had consistently been scantily funded, was clearly the bottleneck in the system. The very generously supported universities had expanded rapidly but, partly because of the secondary schools' failure to turn out enough sufficiently qualified graduates in science, were not producing the scientific manpower the country needed.

For all of this Ghana had paid a very high price. Central Government expenditures on education had spiraled upward because the system had grown so fast and also because the Central Government had assumed responsibility for certain costs previously borne by parents and the local governments. By 1965, the last full fiscal year under the C.P.P. government, recurrent (operating) expenditures on education totaled ₵67 million—14 times the total in 1951. These expenditures accounted for more than a quarter of the total operating budget, and had become its largest single item. Of these recurrent expenditures on education, more than 26 percent went to the country's higher educational institutions and to scholarships for students in higher educational institutions both at home and abroad.

### III. SINCE THE 1966 CHANGE OF GOVERNMENT

For more than 2 years after the coup of February 24, 1966, that overthrew the Nkrumah regime, the National Liberation Council (N.L.C.), the new army-police government established by the leaders of the coup, followed a general policy of fiscal restraint in an effort to bring Ghana out of its grave financial situation. It very quickly scrapped the ambitious Seven-Year Development Plan, including its educational development program. And it soon made a few major decisions in the educational field. On March 7, 1966, less than 2 weeks after the coup, it appointed the Education Review Committee to undertake a comprehensive review of the entire formal educational system and of research in Ghana. It decided that from the beginning of school year 1966-67 the free textbook scheme should be modified so that parents would be required to contribute to the cost of textbooks, which had previously been made available to their children at no cost. And very early it took steps to slow the rate of primary school expansion, to hold down the very high costs of university education in Ghana, and to review the overseas scholarships on which the C.P.P. government had spent large sums. In some very important areas, such as teacher training and secondary education, there were no dramatic changes; neither the secondary schools nor the teacher-training colleges increased their intake in the first post-coup years.

It was not until 1968 that the Government concluded the period of stabilization and launched the Two-Year Development Plan, a capital development plan to cover the 2 fiscal years 1968-69 and 1969-70.<sup>1</sup> This plan was followed 2 years later by the One-Year Development Plan for fiscal year 1970-71,<sup>2</sup> the most recent of the post-coup capital development plans. In 1968 the Government had also published the report of the Education Review Committee,<sup>3</sup> presented to it on July 28 of the previous year, and its own White Paper on the Committee's report,<sup>4</sup> which contained the

<sup>1</sup> Republic of Ghana. *Two-Year Development Plan From Stabilisation To Development: A Plan for the Period Mid-1968 to Mid-1970*. Accra-Tema: State Publishing Corporation, 1968.

<sup>2</sup> Republic of Ghana. *One-Year Development Plan July 1970 to June 1971*. Accra-Tema: Ghana Publishing Corporation, 1970.

<sup>3</sup> Republic of Ghana. *Report of the Education Review Committee appointed by the National Liberation Council*. Accra-Tema: Ministry of Information, State Publishing Corporation, 1968.

<sup>4</sup> Republic of Ghana. *White Paper on the Report of the Education Review Committee (Together with the Recommendations in Brief of the Education Review Committee and the Report of the Special Committee on Delimitation of Functions of University Institutions)*. W.P. No. 9/68. Accra-Tema: Ministry of Information, State Publishing Corporation, 1968.

Government's response to the Committee's recommendations and statements of the Government's educational policy. The statements made in these and other documents and the actions taken in the educational field suggest that since the 1966 coup the successive governments have held a rather consistent view of the system developed under Nkrumah and a rather consistent policy of educational development.

### The View of the Inherited System

In 1967 and 1968 the N.L.C. noted that the rapid expansion of education at every level had been achieved at great and increasing cost. Education had become the heaviest burden on the budget. As of 1967-68 it was taking more than a fifth of total Government expenditures, "an extremely high figure when one considers all the competing claims on the country's resources."<sup>5</sup> It was "quite obvious that the sector deserves close examination with a view to effecting changes in policy aimed at reducing the cost of education."<sup>6</sup>

In its Two-Year Plan, the N.L.C. stated:

There would be less cause for concern over these trends if the programmes concerned had been well planned and co-ordinated, and had concentrated on education of a sort which would endow pupils with the capacity to contribute effectively as citizens and workers to economic and social development. Unfortunately, this had not always been the case. As a result Ghanaians are now paying the price of educational expansion undertaken before trained teachers were available in sufficient numbers.<sup>7</sup>

A year later the Commissioner responsible for Finance was to state: "The pace of educational expansion in previous years was uncontrolled and often irrational."<sup>8</sup>

It was also recognized that the universities had developed at very great cost and for various reasons had not achieved the output the country required. The One-Year Development Plan of the Busia government stated:

The creation of three university institutions posed particularly intractable problems because insufficient thought had been given to the supply of qualified students, so that the universities have consistently operated below capacity . . . the universities resorted to various expedients to attract more entrants. These in-

<sup>5</sup> Republic of Ghana. *Two-Year Development Plan* . . . loc. cit. p. 81.

<sup>6</sup> Republic of Ghana. National Liberation Council. *Budget Statement for 1968-69* by Brigadier A. A. Afrifa, Member of the National Liberation Council and Commissioner Responsible for Finance. Accra: Ministry of Finance, 1968. p. 10.

<sup>7</sup> Republic of Ghana. *Two-Year Development Plan* . . . loc. cit. p. 81.

<sup>8</sup> Republic of Ghana. National Liberation Council. *Budget Statement for 1969-70* by Mr. J. H. Mensah, Commissioner Responsible for Finance, Member of the Executive Council of the National Liberation Council. Accra: Ministry of Finance, 1969. p. 16.

cluded . . . taking sub-standard entrants, with disastrous results in terms of student wastage and examination failures.<sup>9</sup>

Suggesting they had given inadequate attention to the country's manpower needs, the earlier Two-Year Development Plan of the N.L.C. stated:

The number of pupils entering university has been a function only of the number who can achieve a given standard . . . . In future the number of admissions to the universities will be determined by Ghana's manpower needs within the framework of financial constraint.<sup>10</sup>

In the same document it declared that an important weakness of the educational system as it had developed was the "growing imbalance between the different levels of education . . . . By 1967-68, the proportion of educational expenditure on secondary schools had fallen to under half its 1960-61 level, while the proportion spent on colleges and universities had nearly doubled."<sup>11</sup> (In fact, expenditures on secondary education were exceptionally high in 1960-61; secondary education had almost always received a very small proportion of educational expenditures.) The results of the "declining proportion" going to secondary schools, it said, were evident in the small percentage of middle school pupils who were able to enter secondary schools and the great difficulties the universities were having in recruiting students to fill courses of particular relevance to the country's development.<sup>12</sup>

The One-Year Development Plan of the subsequent civilian government stated:

. . . . During the early 1960's the country's educational structure became distorted by the headlong rush for expansion of higher and elementary education, largely at the expense of other levels . . . .

The lessons of the past underscore the need to strengthen the secondary base in advance of university expansion.<sup>13</sup>

### Priority of the Secondary Level

Obviously it was felt that secondary education should receive high priority. And the policy since 1968 seems to have been a consistent one of correcting the system's imbalance by simultaneously (1) expanding the secondary level (including technical and teacher education), (2) consolidating and improving the quality of primary education, and (3) controlling the growth of university education and relating it more directly to development needs.

<sup>9</sup> Republic of Ghana. *One-Year Development Plan July 1970 to June 1971*. Accra-Tema: Ghana Publishing Corporation, 1970. p. 160.

<sup>10</sup> Republic of Ghana. *Two-Year Development Plan* . . . . loc. cit. p. 86.

<sup>11</sup> *Ibid.* p. 81.

<sup>12</sup> *Ibid.* p. 84.

<sup>13</sup> Republic of Ghana. *One-Year Development Plan* . . . . loc. cit. p. 160.

### *Secondary-Level Education*

The Two-Year Development Plan called for a moderate increase in 1969 in the number of pupils entering secondary schools, which had not grown in the 3 years from 1966 through 1968, and for more sizable increases in succeeding years when the pressure of demand from pupils completing the 8-year elementary course would become very heavy. The subsequent One-Year Development Plan called for adding still more Form I (first-year secondary) places and thus increasing secondary school intake by more than 10 percent. The increases were achieved through expanding existing schools, building new ones, converting teacher-training colleges, and admitting day pupils to boarding schools. The two plans also called for increasing the number of Sixth Form<sup>14</sup> places and particularly the number of Sixth Form science places so as to turn out more students qualified for science programs in the universities. The priority given to secondary education has been not only a response to the real demands of the economy for middle- and high-level manpower in certain fields but also—and perhaps largely—a response to the building popular pressures for secondary school places, both at Form I and Sixth Form levels, which were the inevitable consequence of the earlier decisions to expand both elementary and secondary education.

Elementary school teacher training also received new emphasis from 1968-69 on. The ultimate objective, of course, was to improve the staffing of the elementary schools by gradually replacing untrained pupil teachers, who in 1967-68 still constituted more than 60 percent of the elementary school staff, with newly trained teachers. With the launching of the Two-Year Development Plan, the Government embarked on a program of consolidating the teacher-training system. At this time the aim was to reduce over a 5-year period the "large number of small colleges which are hardly viable at their existing levels of operation"<sup>15</sup> to 30 and to build up each of these to accommodate 500 or more students. Most of the institutions not retained as training colleges were to be converted into secondary schools. At the same time the proportion of teacher-training college students drawn from the secondary schools rather than middle schools was to be increased. The process began in 1969-70 and has since continued.

The Two-Year Plan also provided that total intake into teacher-training colleges, which had been allowed to fall off after 1965-66, should be restored in 1968-69 to its previous peak level. A sizable increase did occur. By 1970, however, plans called for reducing total enrollment, intake, and output to decrease the danger of an oversupply of trained teachers by the mid-1970's.

Both plans clearly acknowledged that technical education had received

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<sup>14</sup> A 2-year terminal secondary course following the basic secondary course.

<sup>15</sup> Republic of Ghana. *Two-Year Development Plan* . . . loc. cit. p. 85.

a disproportionately small share of development funds and hence an inadequate amount and provided for some increase in the proportion of these funds devoted to technical education.

Thus, since 1968-69, secondary education, technical education, and teacher training have received greater emphasis. This trend is quite in accord with the recommendation made by the Education Review Committee in 1967 and accepted by the Government in 1968 that the middle level of education covering secondary, technical, commercial and vocational, and teacher education was the area to which the national effort should be directed.

### *Elementary Education*

At the elementary school level the objective seems to have been, quite consistently, consolidation and improvement. Very soon after the 1966 coup the Government placed a check on the "indiscriminate opening of new primary schools."<sup>16</sup> Under the Two-Year Plan, new schools were to be opened in areas with the least educational opportunities relative to their population. Elsewhere expansion was to be achieved through better utilization of existing facilities and personnel. Small nonviable schools and under-enrolled classes were to be merged. The average number of pupils per teacher was to be brought nearer the permitted maximum of 46.<sup>17</sup> In addition, the Government took steps to improve the quality of instruction both by upgrading the teaching staff (replacing untrained with trained teachers) and by preparing new teaching materials.

### *University Education*

Apparently it was decided very soon after the 1966 coup that university education, which had taken a disproportionately high percentage of educational expenditures and had not been adequately related to manpower requirements, should enter a period of consolidation during which costs would be held down and enrollments stabilized and better related to the country's needs. And indeed, since that time, the universities have received a declining but still a high proportion of the development funds available for education, and efforts have been made—not always successfully—to hold down their recurrent costs. Overall enrollments have grown little.

In addition, tighter new controls have been placed on the awarding of Government scholarships for study overseas. Soon after the 1966 coup the Government began to take a close look at the scholarships that had already been awarded, and in February 1968 it published the following statement:

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<sup>16</sup> Ghana. *The Annual Estimates for 1967-68*. Accra: Ministry of Finance, 1967. 1:VIII:14.

<sup>17</sup> Republic of Ghana. *Two-Year Development Plan* . . . loc. cit. pp. 83, 84.



Having regard to the irregular manner in which a large number of Ghanaians, with definitely inadequate or doubtful academic background, were awarded scholarships for the study of Medicine and other subjects in certain overseas countries under the past regime, the Government has ordered a thorough review, already conducted in the majority of cases, into the background and performance of every Ghanaian studying overseas under Ghana Government scholarships or foreign Government awards which are supplemented by the Ghana Government.<sup>16</sup>

The Two-Year Development Plan published later the same year stated:

Overseas scholarship policies will aim at stricter control over students' choice of subject and public funds will only be made available for essential courses not available in Ghana. The Government will also strengthen controls to ensure that those persons who study abroad at public expense return.<sup>17</sup>

### Results

By 1971-72 the post-coup policy of consolidating primary education and controlling the growth of higher education while expanding the secondary level of the system had brought the following results.

	Number of schools		Number of pupils	
	1965-66	1971-72	1965-66	1971-72
Total -----	10,624	10,563	1,471,407	1,509,847
Primary -----	8,144	6,715	1,137,495	960,403
Middle -----	2,277	3,608	267,434	455,398
Secondary -----	105	139	42,111	56,801
Commercial -----	--	9	--	4,615
Technical -----	11	15	4,956	8,345
Teacher training -----	84	74	15,144	19,221
University -----	3	3	4,267	5,064

Between 1965-66 and 1971-72 the number of primary schools fell off by more than 1,400. Probably as the result of a combination of factors—the imposition of textbook fees in 1966-67, the previous absorption of many overage children into the primary schools, and the elimination of some schools—primary school enrollments actually declined steadily from 1965-66 through 1970-71 before increasing slightly in 1971-72, when they were 15 percent below the 1965-66 figure. Declining enrollments, efforts to make

<sup>16</sup> *Ghana News*, 6:2:5, February 1968. The quotation is from a lengthier statement dealing primarily with the case of the first group of Ghanaian doctors trained in the Soviet Union who had returned to Ghana a few months earlier. Part of this statement reads: "It became obvious shortly after the return of these doctors that their knowledge and skill did not fit them to shoulder adequately all the responsibilities that a young doctor in Ghana is of necessity called upon to discharge. An examination arranged by the Ghana Medical School . . . indicated clearly that with the exception of one of them their knowledge and skills showed serious gaps in relation to the responsibilities which they would be called upon to assume. Arrangements are therefore being made for 16 . . . to undergo an orientation course in the Ghana Medical School for a period of one year or longer . . . to help make up for the deficiencies in their training."

<sup>17</sup> Republic of Ghana. *Two-Year Development Plan* . . . loc. cit. p. 86.

the fullest possible use of available personnel, and the output of the teacher-training colleges combined to bring about a dramatic improvement in the ratio of trained to untrained teachers.

The most rapidly expanding sector, the middle school sector, added more than 1,000 schools and increased its enrollments by 70 percent. From the comparatively small 1965-66 base technical education enrollments increased by almost this percentage.

In addition, nine secondary commercial schools came into the public system and increased their enrollments to about 4,600 in 1971-72. In the crucial general secondary school sector 34 schools (some of them converted teacher-training colleges) came onto the assisted list, bringing the total to 139, and the number of pupils increased by about 15,000 or more than one-third the 1965-66 enrollment figure.

During the same period total university enrollments increased by only 19 percent.

Throughout these years, the Government had slowed the rate of increase in educational expenditures and had lowered the percentage of the national budget devoted to education. It had increased the proportion of total education expenditures devoted to secondary education while at the same time reducing the proportion devoted to higher education.

### Other Changes

The post-coup period also brought certain structural, curricular, and administrative changes within the system. The post-coup governments continued and completed the structural process started in 1962 under the Nkrumah government. This consisted of gradually introducing, in place of the 6-year primary and 4-year middle school courses, a new 8-year basic course of elementary education followed by further 2-year courses for those not selected for secondary school by the end of their eighth year.

At both the elementary and the secondary levels, curriculum reform has been a major objective of educational policy. Over the years the growing number of young people who have left elementary and secondary schools with only an academic or general education has, as the One Year Development Plan stated, "drawn increasing attention to the problem of relevance in education and how the schools can equip their pupils for careers in life."<sup>20</sup> Evidently taking the position that the general education schools should themselves provide prevocational or vocational education, the successive governments have taken steps to broaden the curriculum at both the elementary and secondary levels so as to include various practical subjects. They have been (1) establishing an increasing number of "con-

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<sup>20</sup> Republic of Ghana. *One-Year Development Plan* . . . loc. cit. p. 165.

tinuation classes" in the 9th and 10th years of elementary education to give pupils not selected for secondary education basic preparation for different types of occupations, and (2) diversifying the secondary curriculum by introducing such subjects as commerce, agriculture, domestic science, metalwork, woodwork, and technical drawing.

In addition, the Busia government laid down an important new policy on the language of instruction in Ghana's elementary schools. Breaking sharply with the Nkrumah policy, which stressed teaching in English at the earliest possible stage, this policy—not fully implemented in practice—requires teaching in a Ghanaian language during at least the first 3 years of the primary course.

The post-coup governments also identified weaknesses in educational administration, planning, and coordination; and made changes designed to (1) better coordinate the administration and development of pre-university and university education, (2) better coordinate the development of university education, and (3) improve the planning and administration of pre-university education.

**PART III.**  
**Administration and**  
**Financing of Education**

## I. ADMINISTRATION

In Ghana's centralized governmental structure, formal education, like most matters, is a Central Government responsibility. The Central Government establishes policy and passes legislation governing the organization and administration of the formal educational system. The centrally enacted Education Act, 1961, provides for the organization and administration of pre-university education (all formal education other than university education), and separate centrally enacted legislation provides for administering the universities. All this legislation establishes a centrally administered system. The responsibilities of the local governments are those assigned to them by the Central Government and are limited to contributing funds for all public elementary schools and managing some of them.

### The Pre-University System

The Education Act, 1961, confers responsibilities for the entire pre-university system on the Central Government Minister (Commissioner in a military government) who is assigned ministerial responsibility for pre-university education and the ministry he heads.

#### *The Ministry*

At present the Central Government official and the ministry assigned responsibility for pre-university education and exercising the responsibilities and powers conferred by the act are, respectively, the Commissioner of Education, Sports and Culture, and the Ministry of Education, Sports and Culture. (Before 1970 they were the Minister—or Commissioner—of Education and the Ministry of Education, respectively.) The Ministry has headquarters in Accra responsible for policy, planning, curriculum research and development, and other matters, and nine Regional Education Offices (one in each Region) headed by a Regional Education Officer. Under each Regional Education Office are a few District Education Offices, some of which are divided into Education Circuits. The Regional Education Officers are responsible for carrying out the detailed administrative work in financing, supervising, and inspecting the schools.<sup>1</sup>

<sup>1</sup> Called for in the Two-Year Development Plan, decentralization began in 1968. The purpose was to improve the planning and administration of pre-university education by assigning detailed administrative duties to Regional Offices and thus allowing a smaller number of officials at headquarters to devote more time to policy and planning duties.

### *The Dual System*

The pre-university system for which the Ministry is responsible is (as it always has been) a dual system of schools, consisting on the one hand of all institutions that, regardless of their management, receive public funds—the “public” institutions—and on the other hand of institutions receiving no public funds—the “private” institutions. The public sector includes primary, middle, and secondary schools, teacher-training colleges, and technical institutions. This is Ghana's public school system. The private sector consists of primary and secondary schools and technical and commercial institutions. Before 1952 the private sector of the system was a very large one, but one of the major developments since 1951 has been the absorption of private schools into the public system. Today the public sector is much larger at the elementary level than the private sector. At the secondary level, however, there are apparently more private than public general secondary, commercial, and technical schools.<sup>2</sup>

### *Private Sector*

Under the 1961 act, the Ministry has very different responsibilities for the two sectors. The act confers on it comparatively limited authority over the private school sector. It simply provides that any person may establish and conduct a private school provided he registers the school with the Ministry. It also empowers the Minister, “if satisfied that a private institution is dangerous or potentially dangerous to the physical or moral welfare of the pupils attending it or that its continued existence is against the public interest,” to require the proprietor to close the institution.<sup>3</sup>

### *The Public School System*

On the other hand the 1961 act confers on the Minister and his Ministry responsibility for administering the funds made available by the Central Government for public education and for providing and controlling pre-university public education. To the Local Authorities it assigns responsibility for building, equipping, and maintaining all public primary and middle schools, for establishing such primary and middle schools as the Minister considers necessary, and for carrying out other educational duties imposed or approved by the Minister. Thus the act provides for a public school system provided and controlled by the Central Ministry of Education.

In providing pre-university public education, the Ministry runs few, if any, schools itself. From 1956 (when all elementary schools run by the

<sup>2</sup> Statistics appear in part V.

<sup>3</sup> Republic of Ghana. *The Education Act, 1961*. Act 87 of the Parliament of the Republic of Ghana. Accra: Government Printing Department, 1961. pp. 8-9.

Central Government were transferred to Local Authorities) until recent years, the Ministry (and the Department before it) did run a few post-elementary institutions--teacher-training colleges, secondary schools, and technical institutions. These institutions, managed by Ministry officials, were known as "Government" institutions. By mid-1970 steps had been taken to entrust the management of these few Government schools to boards of governors; most, if not all of them, have since been turned over to such boards. For managing all public schools (except the few that may still be Government ones, i.e. institutions) the Ministry uses other bodies as its agents.

Every postelementary public institution, except for the few that may still be Government ones, is managed by a board of governors or another body established or recognized by the Minister (or Commissioner) for this purpose. Such public postelementary schools are called "assisted" institutions.

All public elementary (primary and middle) schools are managed by Local Authorities (local governments, including town councils) and by Educational Units, most of which are religious bodies.<sup>4</sup> Some schools that are technically managed by Local Authorities are in fact managed on their behalf by religious Educational Units.

As managers, the Local Authorities and Educational Units assist the Ministry of Education with two aspects of management--the assignment and payment of teachers. (In some cases the Ministry handles payment.) The Educational Units receive from the Central Government Ministry grants to maintain their offices and pay the salaries of their supervisory, administrative, and clerical staff. The Local Authorities do not receive such funds. Apparently Educational Units, because of the funds they receive, and the City Councils of Accra, Kumasi, and Sekondi-Takoradi and some urban councils, because of their stronger financial base, are able to hire better qualified personnel than the rural local councils.

More than half of the public elementary schools are now at least technically managed by Local Authorities, whereas before self-government in 1951 most elementary schools were managed by church or missionary bodies and a few by the Central Government's Department of Education. The Accelerated Development Plan of 1951 set forth the following new policy and procedure for Local Authority management of schools which led to this profound change.

In future no new primary school opened by a denominational religious body or by a person or group of persons will be eligible for assistance from public

<sup>4</sup>The term "Educational Unit" is defined in the 1961 Education Act as "a corporation, a body or religious society which has management of one or more public institutions and is recognized as such by the Minister." Occasionally the term "Educational Unit" is used to cover not only the religious and other Educational Units but also the Local Authorities.

funds unless prior approval of the Local Authority concerned under powers delegated by the Central Government has been obtained.

It is expected that considerable numbers of educational unit schools will be handed over to Local Authorities.<sup>5</sup>

As a result of this new policy and procedure and the obvious desire of Local Authorities to manage schools in their areas, most of the schools established since 1951 have been managed by Local Authorities. In addition, according to the Education Review Committee, "It has been the desire of some local authorities to manage schools in their areas even to the extent of demanding the complete handover to them of purely Educational Unit schools." They have "insisted on managing" schools founded by church Educational Units before 1952 but officially recognized after 1951. "This," the Committee stated, "is considered a misinterpretation of the procedure laid down in the Accelerated Development Plan."<sup>6</sup> (In a few cases, on the other hand, Local Authorities asked religious Educational Units to manage schools founded by the Local Authorities on their behalf.) Other schools came under Local Authority management when the Central Government transferred all the former Government primary and middle schools to the Local Authorities as of September 1, 1956.

In 1970-71 public primary and middle schools were distributed by management unit as follows:

	<i>Primary and middle</i>	<i>Primary</i>	<i>Middle</i>
<i>Total</i> -----	10,554	7,008	3,546
Local Authority -----	6,615	4,044	2,571
L.A. -----	5,527	3,229	2,298
L.A.—Educational Unit -----	1,088	815	273
Religious Educational Units -----	3,889	2,936	953
The Roman Catholic Church ----	1,320	1,030	290
The Methodist Church -----	901	674	227
The Presbyterian Church of Ghana	868	639	229
The Evangelical Presbyterian			
Church -----	322	246	76
The Anglican Church -----	270	193	77
The A.M.E. Zion Mission -----	91	62	29
The Seventh Day Adventist			
Mission -----	57	44	15
The Salvation Army -----	39	32	7
The T.I. Ahmadiya Movement ---	21	16	5
Other -----	50	28	22

<sup>5</sup> Gold Coast. *Accelerated Development Plan for Education, 1951*. Accra: Government Printing Department, 1951. p. 1.

<sup>6</sup> Republic of Ghana. *Report of the Education Review Committee appointed by the National Liberation Council*. Accra-Tema: Ministry of Information, State Publishing Corporation, 1968. P. 58.



As this tabulation reveals, Local Authorities (or Educational Units on their behalf) managed 73 percent (2,571) of the total public middle schools (3,546) and 58 percent (4,044) of the total public primary schools (7,008); and religious Educational Units managed almost all the remainder.

Local Authorities at least technically managed a high percentage of the public elementary schools in six Regions. Religious Educational Units managed more than half of the primary schools in the Central, Eastern, and Volta Regions and more than half of the middle schools in the Eastern Region. The percentage of primary and middle schools managed by Local Authorities in each Region was as follows:

	<i>Primary</i>	<i>Middle</i>
Upper	96	94
Brong Ahafo	71	89
Greater Accra	70	88
Western	63	85
Northern	62	74
Ashanti	60	84
Volta	45	71
Central	48	53
Eastern	40	46

Managing a larger number of Educational Unit schools than any other Educational Unit, the Roman Catholic Church is active in many Regions and operates a sizable number of schools in the Ashanti, Eastern, Central, and Western Regions. It manages the largest number of all Educational Unit schools in the Ashanti, Western, Brong-Ahafo, Northern, and Upper Regions. Concentrating its work largely in the Ashanti, Central, and Eastern Regions, the Methodist Church manages the largest number of Educational Unit schools in the Central Region and almost as many schools in the Ashanti and Brong-Ahafo Regions as the Roman Catholic Church. In the Eastern Region, where it is most active, the Presbyterian Church manages the largest number of Educational Unit schools, while the Evangelical Presbyterian Church, confining its activities almost entirely to the Volta Region, manages there the largest number of such schools.

### The Universities

Centrally enacted legislation has established the three universities and provided for their administration.<sup>7</sup> Under this legislation the universities are autonomous (internally self-governing) institutions. The act for each

<sup>7</sup>The University of Ghana Act, 1961 (Act 79, Aug. 22, 1961); Kwame Nkrumah University of Science and Technology Act, 1961 (Act 80, Aug. 22, 1961); The University of Cape Coast Act, 1971 (Act 390, Dec. 1, 1971).

institution provides that the governing body shall be the University Council, which shall include a chairman appointed by the Government, representatives of the university, members appointed by the Government, and others; each act also grants the Council broad powers in governing the institution. The universities are and always have been, however, almost entirely dependent upon the Central Government for their funds.

The Central Government agency now responsible for university affairs is the National Council for Higher Education, established in 1969 by a decree. Ministerial responsibility for the Council and its affairs has been assigned since the 1972 change of government to the Commissioner of Education, Sports and Culture. The Council will be discussed in more detail later in this section.

A separate Scholarships Secretariat administers all higher education scholarships. Responsibility for the Secretariat rests with the office of the National Redemption Council, rather than with the Ministry of Education, Sports and Culture.

#### *From 1959 to 1969*

For a decade before establishment of the National Council for Higher Education, responsibility for university affairs was assigned to different agencies of the Central Government—and more often than not to an agency other than the ministry responsible for pre-university education. During this period—or at least its early years—governmental oversight and coordination of university development and activities were inadequate to ensure that the universities developed without duplication and waste and contributed fully to the manpower needs of the country. This was one of Ghana's major educational problems.

*1959-66.*—In 1959 responsibility for university affairs was transferred from the Ministry of Education to the Office of the President (Prime Minister at the time of transfer). Evidently recognizing the need for coordination, the international Commission on University Education that reported in 1961 recommended, and the Government in its White Paper agreed to, establishment of a National Council for Higher Education and Research. The Council was to be concerned with the general direction and coordination of, and the provision of funds for, higher education and research so as to ensure that national needs for high-level manpower were met. The Council (attached to the Office of the President) was established. Later, responsibility passed to a separate Ministry of Science and Higher Education (sometimes called Ministry of Higher Education and Research).

According to the 1967 report of the Education Review Committee, the "functions of coordination were, however, not satisfactorily discharged by the Council, nor by its successor body, the Ministry of Higher Education and Research. One of the difficulties," the report continued, "was the nature of the control exercised by the ex-President, who served also as

Chancellor of all the universities, and employed the Council mainly as an avenue for the transmission of directives to the university institutions.”<sup>8</sup>

In 1964, in a dramatic move that was apparently an effort to avoid unnecessary duplication, President Nkrumah, by presidential decree, assigned each of the three university institutions certain major areas of instruction. One report, putting it perhaps too mildly, stated that the subsequent transfer of departments caused “considerable unrest in the University institutions.”<sup>9</sup> The vice chancellor of the University of Ghana later commented: “The implementation of this Presidential Command was, of course, fraught with many difficulties and obstacles; and the problems of unnecessary duplication were, of course, not entirely resolved.”<sup>10</sup>

Inadequate coordination led, the Education Review Committee stated, to “separate planning and development by the various university institutions” which “have expanded and sometimes established faculties or departments without due regard to what is happening in the other institutions, or to manpower requirements and the general educational needs of the country.”<sup>11</sup> It seems that the university institutions individually made their plans, submitted their requests for subventions to the Government and, in a period of governmental encouragement and financial generosity but inadequate oversight, received much of what they asked.

The absence of adequate manpower data to guide the universities further compounded the problem. More than once the vice chancellor of the University of Ghana, evidently referring to both the pre- and post-1966 periods, has pointed out that lack of any effective manpower statistics and of a nationally formulated statement of manpower needs and goals made “next to impossible” effective long-term planning by the universities to meet manpower needs. In his view, the 1960 Survey of High Level Manpower in Ghana “became almost out of date as soon as it was completed.”<sup>12</sup> The report on the next survey, carried out in 1968, did not appear until mid-1972.

1966-69.—In 1966, the new government, the National Liberation Council, as part of its general reorganization of the Government ministries and its reallocation of responsibility for various subjects to different ministries, merged the former Ministry of Science and Higher Education with the Ministry of Education; the former became the higher education division of the Ministry of Education. Also, since 1966 the proposed budgets of the universities seem to have come under closer scrutiny. Development subventions have been cut and recurrent subventions held below request.

<sup>8</sup> Republic of Ghana. *Report of the Education Review Committee . . .* loc. cit. p. 95.

<sup>9</sup> *Report of the Ghana Universities Visiting Committee 1969*, p. 7.

<sup>10</sup> A. A. Kwabong, “Mobilisation of Human and Material Resources,” *University of Ghana Reporter*, 10:20:489, May 7, 1971.

<sup>11</sup> Republic of Ghana. *Report of the Education Review Committee . . .* loc. cit. p. 95.

<sup>12</sup> A. A. Kwabong, op. cit. pp. 489-90. See also “Vice-Chancellor Address to Congregation 13th March, 1971,” *University of Ghana Reporter*, 10:23:593, May 21, 1971.

In addition, lengthy consideration led to establishment of the present National Council for Higher Education, which is expected to provide the kind of oversight and coordination previously lacking.

In September 1966 the Education Review Committee recommended in its interim report that a council for higher education be established to advise the Government on all matters of higher education and perform the functions of a university grants committee. The National Liberation Council directed that this recommendation be implemented immediately. The universities "reacted sharply to the Interim Report"<sup>13</sup> and requested that the recommendations not be implemented until they had had an opportunity to comment. As explained by a later committee, the reaction was partly "influenced by the bitter experiences of the university institutions under the former regime, which was prone to give directives without consultation with the parties affected. . . ."<sup>14</sup>

In December 1966 the N.L.C. approved deferment until the views of the universities could be examined by a special committee, the Special Committee on Delimitation of Functions of University Institutions. This Special Committee reported in February 1967, making recommendations that were apparently less open to criticism than the original ones. The 1968 Government White Paper on the report of the Education Review Committee stated that the recommendations of the Special Committee had been accepted and were being implemented, and other 1968 official documents confirmed the intention to establish the National Council for Higher Education, including a university grants committee.

The Commissioner of Education, however, later appointed an international committee, the Ghana Universities Visiting Committee (the "Vick Committee") to advise the Government on this and other university matters. This committee, which visited Ghana in January 1969 and submitted its recommendations to the Commissioner in April 1969, suggested changes in the terms of reference for the National Council that can only be interpreted as proposals for a more limited, more purely advisory role than had previously been proposed.

#### *The National Council for Higher Education*

*Provisions.*—The National Council for Higher Education was established by a decree of the National Liberation Council on September 27, 1969.<sup>15</sup> Following closely the terms of reference suggested by the Vick

<sup>13</sup> Republic of Ghana, *White Paper on the Report of the Education Review Committee (Together with the Recommendations in Brief of the Education Review Committee and the Report of the Special Committee on Delimitation of Functions of University Institutions)*, W.P. No. 9/68. Accra-Tema: Ministry of Information, State Publishing Corporation, 1968, p. 52. The quotation is from the Report of the Special Committee.

<sup>14</sup> *Ibid.*, p. 53. The quotation is from the Report of the Special Committee.

<sup>15</sup> *National Council for Higher Education Decree, 1969*. National Liberation Council Decree 401. Accra-Tema: Ghana Publishing Corporation, 1969.

Committee, the decree provides that the National Council for Higher Education is "to advise the Government on the development of university institutions of Ghana," taking into account the "total national resources, needs and development programmes." It is to enquire into the financial needs of the institutions and recommend to the Government (1) block allocations of funds to individual university institutions to help meet their running costs and (2) grants-in-aid of capital expenditure (thus serving as a university grants committee). In addition it is to receive the audited accounts of each university institution at the end of its fiscal year; advise the institutions on applications for and acceptance of external aid; "advise generally" on conditions of service for the staff of the institutions; and advise on the standards the institutions should observe, "particularly with regard to building areas and costs." It is also to collect and make available information relating to the university institutions.<sup>16</sup>

The decree, as amended,<sup>17</sup> provides that the Council should consist of a chairman with wide academic and administrative experience; three persons with extensive experience of university work; the vice chancellors of the three universities (who have no vote on matters relating to Government allocations to the universities); one person representing the Council for Scientific and Industrial Research and another representing the Ghana Academy of Arts and Science; two persons representing industry and commerce, one having wide experience of schools in Ghana; two other distinguished citizens, one of whom must be a woman; and three assessors representing, respectively, the Commissioners responsible for Economic Planning, Education, and Finance.

Ministerial responsibility for the Council was assigned in 1969 to the Office of the Prime Minister, but was transferred after the 1972 change of government to the Commissioner for Education, Sports and Culture.

*Implementation.*—It was to be some time before all members were appointed and the full Council brought into being. Speaking in May 1971, the vice chancellor of the University of Ghana noted that although the chairman (who was also the Chairman of the Council for Scientific and Industrial Research) had been appointed, "this important body is yet to become a reality. Meanwhile the Universities have been working out their inter-relationships through closer but informal consultations within the framework of the Committee of Vice-Chancellors and Principal. Clearly the Council ought to be brought into being as soon as possible."<sup>18</sup> In March 1972 he stated that the University Grants Committee, which would permit the financing and thus the planning of the universities to be placed

<sup>16</sup> Ibid. pp. 1, 2.

<sup>17</sup> *National Council for Higher Education (Amendment) Decree, 1972*. National Redemption Council Decree 34, Feb. 25, 1972. Accra-Tema: Ghana Publishing Corporation, 1972.

<sup>18</sup> A. A. Kwapong, op. cit. p. 489.

on a long-term basis, had still not been established as part of the Council as the Vick Committee had recommended.<sup>19</sup>

### Divided Responsibility

Although the Commissioner of Education is now responsible for both pre-university and university education (with responsibility only for scholarships assigned elsewhere), it is important to note that more often than not during the period since 1959 responsibility for university education has been assigned to an agency of the Central Government other than the ministry responsible for pre-university education.

This was true throughout the period from 1959 to 1966. As indicated previously, in 1959 responsibility for university affairs was transferred from the Ministry of Education to the Office of the President (Prime Minister at time of transfer), from which it passed to the National Council for Higher Education and Research, which was attached to the Office of the President and then to the Ministry of Science and Higher Education.

Assignment of responsibility for the different levels to different agencies could hardly have contributed to coordinating the development of the various levels of the public system. In what can be read as a reference to the general situation before the 1966 coup, the National Liberation Council's 2-year development plan declared that it "is now intended to plan education as a whole" and that in future the distribution of funds by levels of education, and thus the development of those levels, would not be "the uncontrolled outcome of unco-ordinated operations of different organisations."<sup>20</sup>

After the 1966 coup, the National Liberation Council merged the ministries responsible for university and pre-university education. The Ministry of Education remained responsible for both until 1969. Then, with establishment of the National Council for Higher Education and the assignment of responsibility for the Council to the Office of the Prime Minister, the old pattern was restored; the Ministry of Education was responsible for pre-university education and the Council for university education. Machinery was established, however, to coordinate the work of the two. After the 1972 change of government, responsibility for the Council was transferred to the Ministry of Education, Sports and Culture.

Established at the beginning of 1960, the Scholarships Secretariat has always been a separate organization, attached before the 1966 coup to the Office of the President and since then to the Secretariat of the National Liberation Council, the Office of the Prime Minister, and the Office of the National Redemption Council.

<sup>19</sup> "Vice-Chancellor's Address to Congregation 11th March, 1972." *University of Ghana Reporter*, 11:14:208-9, Apr. 28, 1972.

<sup>20</sup> Republic of Ghana. *Two-Year Development Plan . . . .* Accra-Tema: State Publishing Corporation, 1968. p. 83.

## II. FINANCING PUBLIC EDUCATION

### Source of Funds

The Central Government now provides most of the funds for the public educational system. Except in northern Ghana, the Local Authorities (local governments, including town councils) contribute to the cost of primary and middle school education by providing and maintaining buildings; and parents still make a direct contribution toward their children's education by paying book and examination fees and boarding costs.

#### *Trends: 1952-72*

*Growing Central Government Responsibilities: 1952-66.*—Until 1966 the general trend was a growing Central Government financial responsibility for education as both parents and Local Authorities were relieved of financial responsibilities previously borne by or assigned to them. In the years between self-government in 1951 and the coup of 1966 the Central Government eliminated tuition fees in all public primary, middle, and secondary schools, technical institutions, and teacher-training colleges. Primary school tuition fees were eliminated at the beginning of 1952 when the Accelerated Development Plan was launched. At the same time teacher training became fee-free and a new system of paying salaries to teachers in the training colleges went into effect. Middle school tuition fees were eliminated at the beginning of school year 1961-62 when the scheme of "fee-free compulsory" education was initiated. Secondary and technical education became fee-free at the beginning of 1965-66. Education has always been free for Ghanaian students in the university institutions.

In addition to eliminating tuition fees, and the very real financial barrier to education they represented, the Government, at the beginning of the 1963-64 school year, instituted a free-textbook scheme under which basic textbooks (which the parents formerly had to supply) were provided free in primary, middle, and secondary schools.

By the end of the period the Central Government had assumed responsibility for all expenditures previously covered by tuition fees and also responsibility for meeting the cost of books.

The Central Government also assumed certain responsibilities for financing primary and middle school education assigned to the Local Authorities at the time the Accelerated Development Plan was launched in 1952.

Under the entirely new system of financing primary and middle school education that went into effect at that time, the Central Government and the Local Authorities were to share the costs of both primary and middle schooling, the Central Government contributing a smaller share at the middle than at the primary level. The Local Authorities were clearly expected to contribute much more to education than in the past by raising local taxes in their respective areas.

At the primary level the Central Government contributed a major part of the cost of teachers' salaries in all approved primary schools; the Local Authorities were responsible for the remainder. In practice, the teachers' salaries were paid from Central Government funds, and, except in northern Ghana, the Local Authorities were responsible for refunding to the Central Government an approved percentage of the salary bills in their areas.

A different system governed the financing of middle schools. The Central Government paid the difference between teachers' salaries and fee income in middle schools established before 1952; i.e., those in existence when the Accelerated Development Plan began. Middle schools opened after 1951 were to be Local Authority schools and, except in northern Ghana, the Local Authorities had to meet the difference between teachers' salaries and fee income in these schools. The distinction worked "inequitably, penalizing the more backward areas."<sup>1</sup>

Except in northern Ghana, the Local Authorities were also responsible for providing and maintaining all public primary and middle school buildings and for providing grants for expendable equipment in all these schools.

The Local Authorities were never able to make the contribution toward financing primary education as originally planned. When the Accelerated Development Plan went into effect in 1952, it was intended that, during the first 2 years, the Central Government would contribute 80 percent of the teachers' salaries in the public primary schools in order to tide Local Authorities over until they could establish an adequate system of local taxes, at which time the Central Government would contribute 60 percent and the Local Authorities the remaining 40 percent. However, because the Local Authorities presumably were unable to contribute more, the approved percentage of teachers' salaries to be paid by the Local Authorities had been reduced to 5 percent in 1957.

This earlier system of financing primary and middle school education—and specifically that part of it that required the Local Authorities to contribute to teachers' salaries in primary and middle schools—was abandoned early in the 1960's. By the end of 1961-62, the Central Government had assumed responsibility for paying all salaries in public primary schools, relieving the Local Authorities entirely of the responsibility of refunding a

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<sup>1</sup> Ghana, Ministry of Education, *Education Report for the Year 1957*. Accra: Government Printer, 1960, p. 10.



percentage of the cost, and, with the abolition of fees in middle schools, the Central Government from January 1962 onwards assumed responsibility for meeting the full cost of salaries in all the public middle schools as well, thus relieving the Local Authorities of responsibility for contributing to teachers' salaries in middle schools established after 1951. The Local Authorities continued to be responsible only for constructing and maintaining primary and middle school buildings and providing grants for expendable equipment.

*Greater Parent-Student Responsibilities: 1966-72.*—After the change of government in 1966, the National Liberation Council, confronting Ghana's very serious financial situation, soon reviewed the question of educational expenditures and moved in the direction of requiring a greater contribution from the students of their parents toward the cost of education. First, at the beginning of school year 1966-67, it introduced textbook fees in the pre-university system to cover part of the cost of books and school materials. This decision, which could not have been a popular one and was evidently one of the factors contributing to subsequently declining primary school enrollments, still stands: textbook fees remain in effect.

Apparently the N.L.C. also soon reached the conclusion that university education was taking a disproportionately large percentage of the educational budget (as a later section of this volume clearly reveals) and that there was an urgent need for a redistribution of funds among the levels of education that would give higher priority to secondary and technical education. Among other steps, the N.L.C. initiated a lengthy review of the system of financing university students.

Under this system university education was completely free for Ghanaian students at Ghana's university institutions. They received from the Government not only free tuition but funds for their living and other expenses as well. In addition to making subventions to the universities to cover free tuitions, the Government awarded a "scholarship" to each student to cover other expenses. This amounted (1970-71) to ₵500<sup>2</sup> (₵550 for medical students). Of the ₵500, ₵100 was paid to the student to cover his personal expenditures, including the cost of his books and materials, a small subscription to student clubs, and examination fees. The remainder was paid to the University halls of residence toward the costs of board and lodging. An additional amount was paid from the university's subvention to meet these costs. The annual cost to the Government of all these non-tuition expenses was about 600 ₵ per student (660 ₵ per medical student)<sup>3</sup> or roughly 3 million ₵ for the university student population of about 5,000.

<sup>2</sup> With the revaluation of Ghana's currency in February 1972, one new cedi (₵) was equivalent to U.S. \$78.

<sup>3</sup> Republic of Ghana, *Students' Loans Scheme, Speech in Parliament by The Rt. Hon. Dr. K. A. Busia Prime Minister of Ghana on Wednesday, 7th July, 1971*. Accra-Tema: Public Relations Department, 1971. Pp. 8, 16.

In July 1968 the N.L.C. announced that beginning with the 1969-70 academic year award of scholarships would be made on merit and those not qualifying would pay for their residence and other expenses from their own resources or loans granted by the Government. Details were to be announced that year. But the review of the matter continued and it took longer than this.

In August 1971, after civilian government had been restored, the Parliament of Ghana passed legislation bringing into effect a new system for financing university students that required from them, for the first time, a contribution toward their own education.<sup>4</sup> Under this new system, which was to apply to all Ghanaian students *beginning* their university studies in 1971-72 and subsequent years, the Government would make grants to the universities to cover tuition fees and most examination fees. Tuition would thus remain completely free.

The students, however, would have to pay a "maintenance charge" to cover the cost of room and board and recreational facilities and also meet his personal expenses, including those for books. The Government would award to about 10 percent of the students "genuine" scholarships granted on the basis of academic merit, each of which would cover all these costs. Students not receiving scholarships would have to meet these costs themselves either from their own resources or from a loan obtained from the Students Loans Scheme Board established by the 1971 legislation.<sup>5</sup> Such students would have to meet about 20 percent of the cost of their university education.

This landmark decision was, of course, highly controversial. As the bill providing for the new system was being considered in Parliament, the Prime Minister presented the change as a matter of both financial necessity and social justice. Ghana could not afford to do everything it wished in the educational field.

... in our present situation, the country just cannot afford to give free university education to everyone who qualifies to enter a university. The social conscience of today is against such a situation, especially when a third of the children of school-going age are not provided with facilities to go to school...<sup>6</sup>

The new system would make it possible for the Government to spread more quickly the opportunity of free, compulsory basic education to all

<sup>4</sup> *The Students' Loans Scheme Act, 1971*. Accra-Tema: Ghana Publishing Corporation, 1971. (Act 371 of the Parliament of the Republic of Ghana, Aug. 25, 1971.)

<sup>5</sup> To obtain the loan a student would have to produce two guarantors or provide acceptable security. The loan would be repayable during a period of 12 years or less commencing as soon as the beneficiary began to earn income but not later than 12 months after leaving the university. Repayment would be on a monthly basis and would be achieved through deductions at source from the beneficiary's salary and subsequent payment of the amount by the employer or the self-employed person to the Board. There would be no interest, but a service charge of one percent per year cumulative over the period of the loan, would be paid after the first 4 years of the repayment period.

<sup>6</sup> Republic of Ghana, *Students' Loan Scheme* . . . loc. cit. p. 10.

and to expand more rapidly secondary and vocational education. University students, whose starting salaries would be considerably larger than those of students from the other levels, should make some contribution and thus "partially repay the generosity of their country in educating them. . . ." <sup>7</sup>

Other views were, of course, expressed. During a 1970 parliamentary debate one member said he believed that the children of privileged parents, who could afford a special secondary education for them, would win the scholarships, rather than children of poor parents from small villages dependent upon their "ordinary education," even though some of their parents could afford to pay for a university education. He questioned whether the child of poor parents who, he said, would eventually earn a lower salary than the child of exceptional talents, or his parents could face the ordeal of taking a loan, going to the university, and later starting to pay off the debt before he was on his feet.<sup>8</sup>

However controversial, the new system went into effect in academic year 1971-72. It was subsequently abandoned by the National Redemption Council in 1972.

#### *Current Sources*

*Parents.*—Today education is tuition free at all levels of the public system, and in addition all Ghanaian students in the universities receive funds for their living and other expenses as well.

Parents pay textbook fees at the primary, middle, and secondary (including technical) levels. As of 1970-71 the parental contribution toward textbooks, for one pupil for one full school year, was ₵1.50 at the primary level, ₵3 at the middle school level, and ₵10 at the secondary level, the latter amount having been raised from ₵6 the previous year. They must also pay examination fees in secondary schools (where the cost is approximately ₵15 and ₵23 for Ordinary- and Advanced-Level examinations, respectively) and technical institutions.

Boarding fees must be paid by boarding students in secondary schools, and technical institutions. A few boarding students in the basic secondary school course leading to the School Certificate receive bursaries to cover these costs. Students in the Sixth Forms receive bursaries ranging from ₵160 to ₵170 a year, which meet part of their boarding expenses. They must find part of their boarding expenses and also part of the cost of their books.

*Local Authorities.*—Local Authorities contribute to the financing of primary and middle school education. Except in northern Ghana, they are responsible for providing and maintaining the buildings and furniture

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<sup>7</sup> *Ibid.*

<sup>8</sup> *Daily Graphic*, Sept. 11, 1970, p. 9.

for all public elementary schools, including the schools managed by Educational Units. (Until 1971-72, when the Central Government took over the responsibility, the Local Authorities also had to provide equipment grants to cover such items as chalk.)

That many rural Local Authorities are not viable bodies and that the financial responsibilities assigned to them have proved a heavy burden seems to have been well-recognized for many years. The Central Government budget documents for certain years in the late 1960's point out that, with the growth in the school population following the implementation of fee-free and compulsory education and the scheme of free supply of textbooks and school materials, "these responsibilities do and will continue to constitute a very considerable financial burden on the local councils." The documents also state: "It is hoped that voluntary bodies and communal labour will continue to assist Local Authorities in this matter."<sup>9</sup>

The Education Review Committee's report, published in 1968, said most Local Authorities had failed to discharge their responsibilities in full.

... there are at present many schools that are very poorly housed, maintained and equipped. The shift system of school attendance is the direct result of the shortage of school buildings. Some of the worst maintained schools are those under the religious Educational Units. Even when development funds are available, some local authorities prefer to spend them on projects like market stalls, which yield revenue. Education is thus given low priority.

The appalling condition of many elementary school buildings and their equipment reflects discredit on Ghana.<sup>10</sup>

In northern Ghana—the Northern and Upper Regions and parts of Brong-Ahafo Region—the Central Government has provided funds for buildings, furniture, and equipment for all public elementary schools. Since some areas of the north, such as the rice-growing ones, are not poor and some areas in other parts of Ghana are as poor as some in the north, this arrangement has been questioned and might conceivably be changed.

*The Central Government.*—The bulk of expenditures at all levels of the public system—all those expenditures not met by parents, the Local Authorities, or external assistance—are met by the Central Government. It provides a great part of the expenditures on primary and middle school education. It meets the full cost of teachers' salaries in all public primary and middle schools and has done so since the early 1960's. It also pays other staff salaries and general administrative expenses, including the cost of postings and nondisciplinary transfers of certificated teachers. In addition, it gives the religious Educational Units (but not the Local Authorities) grants to maintain their offices and pay the salaries of their supervisory,

<sup>9</sup> Ghana. *The Annual Estimates for 1966-67*, I:VIII:14. and Ghana. *The Annual Estimates for 1967-68*, I:VIII:15.

<sup>10</sup> Republic of Ghana. *Report of the Education Review Committee* . . . Accra-Tema: Ministry of Information, State Publishing Corporation, 1968, p. 57.

administrative, and clerical personnel. It still makes a sizeable contribution to the cost of textbooks. Since the beginning of 1971-72, it has provided funds for expendable equipment, not only in the North, which had long received such funds, but in the South as well. And, as it has for many years, it also makes grants for constructing new school buildings and extending schools in the Northern and Upper Regions and parts of Brong-Ahafo Region.

The Central Government also supports secondary education, meeting all the approved capital and recurrent expenses except (1) the cost of maintaining boarding facilities, which the schools must meet through collecting boarding fees; (2) a portion of the cost of textbooks; and (3) examination fees. It also spends large sums of secondary bursaries, which cover at least part of the boarding expenses of some students; provides all the financial support for technical education, except for the boarding, textbooks, and examination fees paid by the students, and meets virtually all the costs of teacher training.

For the university institutions, the Central Government has always provided both development subventions for their physical development and recurrent subventions for their operating expenses that in effect have met the cost of tuition-free higher education for Ghanaian students. It still does so. And, except during the brief period when nonscholarship students were to pay all but tuition, it has provided funds to meet the living and personal expenses of all Ghanaian students in Ghana's university institutions.

### Central Government Expenditures on Education

#### *Expenditures: 1952-70*

The great expansion of the public educational system placed a growing and eventually very heavy burden on the national budget. Central Government recurrent (operating) expenditures on education - which had totaled less than £1.6 million in 1949-50 and about £2 million in 1951-52 - reached almost £6.5 million in 1956-57 (the last fiscal year of the extended 5-year development plan and the fiscal year in which independence was achieved) and more than £67 million in 1958-59 (the second and final fiscal year of the consolidation plan). Having more than tripled during the 1951-59 period, expenditures rose to about £610 million in 1960-61, and then, largely as a result of the measures to introduce fee-free compulsory elementary education and the assumption of financial responsibility for the Ghana Educational Trust secondary schools, rose to an annual rate of about £613 million in the 15-month 1961-62 financial year. In 1965, the last full fiscal year of Nkrumah's rule, recurrent expenditures on education and related activities exceeded 67 million Cedis (equivalent

to more than £G28 million and to more than N¢56.3 million).<sup>11</sup> They were almost 14 times the expenditures in 1951-52.

The Ghanaian pound remained the basic unit of Ghana's currency until July 19, 1965, when a new decimal currency was introduced. The unit of the new currency was the "cedi," which was equivalent to 8 shillings, 4 pence (i.e., one pound was equivalent to 2.40 cedis). The "new cedi," equivalent to 1.2 cedis (or 10 shillings), was introduced on February 23, 1967, to replace the cedi. Having changed several times as the result of various currency devaluations and revaluations, the exchange rate, as of 1972, was 1 new cedi (N¢ = U.S. \$.78).

Large sums had also, of course, been spent on education from the development (capital) budget. Total (both recurrent and development) expenditures had grown from approximately £3.4 million in 1951-52 to about £7.5 million in 1956-57, about £15 million in 1960-61, and to the equivalent of £33 million in 1965. These total expenditures had more than doubled between 1951-52 and 1956-57, doubled between 1956-57 and 1960-61, and more than doubled again between 1960-61 and 1965. In 1965 they were about 10 times the total in 1951-52.

Under the post-coup policies of fiscal restraint, educational expenditures continued their general upward trend, but at a slower rate than under the previous regime. Total (recurrent and development) educational expenditures increased from the equivalent of about N¢66 million in 1965 to a total of about N¢101 million in 1970-71, or by 54 percent, while recurrent expenditures increased from approximately N¢56 million to approximately N¢92 million in 1970-71, or by 63 percent. Further details on the growth of educational expenditures through 1970-71 will be found in table 3 and also in tables 4, 5, and 6.

In 1973 the Ministry reported that the total education budget had increased by the following amounts (in millions of new cedis):<sup>12</sup>

	1970-71	1971-72	1972-73
Recurrent	58.5	69.1	80.1
Development	7.6	12.5	5.2

The reported figures for 1970-71 and presumably the others—are those for the Ministry of Education, Culture and Sports only and do not include the provisions for higher education and scholarships.

#### *Educational Expenditures and the National Budget*

Since the early 1960's (see table 3, p. 68) rising educational expenditures have taken an extremely high percentage of the national budget. Up

<sup>11</sup> From 1912 until July 1958 the unit of currency was the West African pound whose value depended upon the value of the pound sterling. In July 1958 a national currency was introduced; the unit was the Ghanaian pound, which was officially equal to the pound sterling and, like the latter, equal to \$2.80 in U.S. currency.

<sup>12</sup> *Report on Organization of Education in 1971-1973*. Processed report to the 1973 International Conference on Education. P. 1.

through fiscal year 1961-62 expenditures on education had rarely constituted more than 15 percent of either total (recurrent and development) Central Government expenditures or of recurrent Central Government expenditures. In the following 4 fiscal years the percentages moved upward, as the rate of increase in educational expenditures outstripped the growth in the national budget, and by the time of the 1966 coup education was claiming 21 percent of all the Central Government's expenditures and more than 27 percent of its recurrent expenditures. It had become the largest single item in the nation's budget. Thereafter, education's share of the budget at first (in 1966-67) went up even more but then gradually declined to pre-1966 levels. For both 1969-70 and 1970-71 approximately 19 percent of the total budget and about 22 percent of the recurrent budget were allocated to education. Although lower than in previous years, these Ghanaian figures were still very high--certainly among the highest in the world. With the exception of "financial services," education remained the largest single item in the 1969-70 budget, receiving a considerably larger share (19 percent) than defense (11 percent), construction (10 percent), the Ministry of Finance (7 percent), and the Ministry of Agriculture (6 percent).

#### *Distribution of Expenditures*

Available data on distribution of educational expenditures by level or type of schooling are neither plentiful, complete, nor entirely consistent. This is particularly true for the 1950's and early 1960's. Department or Ministry of Education annual reports for the years up through 1961-62 give complete or partial data. The reported data appear in table 4. The *Two-Year Developmental Plan* published in 1968 contains a table showing total (recurrent and development) educational expenditures, by purpose, over the period 1960-61 through 1967-68. Most of this is reproduced in table 5. Unfortunately, for purposes of analysis, the table does not present separate figures for higher education and teacher training or for recurrent and development expenditures. It also excludes figures for one fiscal year and for a portion of two fiscal years. More detailed and complete data are available for the period 1965 through 1970-71. These appear in table 6.

Although these data for the 1950's and 1960's are incomplete and may not be strictly comparable, they do reveal some striking and persistent characteristics of the financing of education in Ghana from 1951 through 1966 and the changes that have occurred since the coup of 1966.

*1951-66.*--Expenditures on all levels of the system increased greatly between 1951 and 1966 and, with one exception, at approximately the same rate. As of 1965 recurrent expenditures on higher education, secondary education, primary and middle school education (excluding textbooks), and teacher training were respectively 14, 14, 12, and 13 times what they had been in 1951-52, while those on technical education were

86 times the extremely small 1951-52 total. There were of course periods in which the rate of increase in expenditures on one level exceeded the rate for others but the years of great differences were rare. Consequently dramatic changes in the distribution of expenditures were both rare and temporary from 1951 through 1966.

Throughout this period, higher education consistently took an extremely large share of educational expenditures. In most years of the 1950's the higher educational institutions received between 18 and 21 percent of the total recurrent expenditures. (In several years the University College alone received 11 percent or more.) Their share of recurrent expenditures apparently dropped to 17 percent in 1960-61 and 11 percent in 1961-62, a year when increased percentages went to middle and secondary education. By 1965, however, the last full fiscal year before the 1966 change of government, higher education was again receiving about 18 percent of the recurrent educational budget and the three university institutions alone almost 16 percent.

The C.P.P. government also spent large amounts on scholarships for higher education students at home and abroad. Recurrent expenditures on higher educational institutions and these scholarships, taken together, accounted for 22 or 23 percent of the recurrent educational expenditures in at least 3 fiscal years of the 1950's and for 26.5 percent (higher education - 18.2 percent; scholarships - 8.3 percent) in 1965.

The available data suggest that a very high percentage of the *development* expenditures on education also went to the higher educational institutions. Data for the period 1952-53 through 1958-59 indicate that about 57 percent of such expenditures were allocated to higher education during this period, and, in 1965, 60 percent of such expenditures went to higher education. In this fiscal year more than 31 percent of total (both recurrent and development) expenditures on education went to the higher educational institutions and scholarships for higher education.

Not surprisingly, the elementary level - primary and middle school education - also consistently received a very considerable portion of educational expenditures. It appears from the available data that this level received 40 percent or more of *recurrent* educational expenditures in most of the years from 1951 through 1966 and that its share of *total* educational expenditures ranged between 30 and 43 percent during the period extending from independence to the 1966 coup. In fiscal year 1965 expenditures on primary and middle schools accounted for nearly 36 percent of recurrent educational expenditures and 30 percent of total educational expenditures.

These figures do not include the large amount spent by the C.P.P. government on the free textbook scheme it initiated in 1963. In 1965 expenditures on textbooks accounted for 6.4 percent of recurrent educational expenditures and 5.5 percent of all educational expenditures.

In addition, the Government had each year throughout the decade from 1951 to 1961 spent between 12 and 14 percent of both its total and



recurrent educational budgets on teacher-training colleges devoted mainly to training teachers for the primary and middle school levels. Highest in the mid-1950's and early 1960's, the proportions devoted to this sector of the system had declined to about 11 percent of both the total and recurrent educational budgets in 1965.

With the exception of a year or two, secondary education had received a surprisingly small proportion of educational expenditures. From 1951-52 through 1959-60, the proportion of annual recurrent educational expenditures devoted to secondary education (including scholarships for secondary education) ranged between 9 and 12 percent. In fact in each year of the 1950's for which data are available the University College (later the University) of Ghana seems to have received more from the Central Government than the entire secondary school system. The proportion of recurrent educational expenditures devoted to secondary education rose to 14 percent in 1960-61 and 19 percent in 1961-62, but in 1962-63 fell back again to about 11 percent.

The percentage of *total* (recurrent and development) educational expenditures devoted to secondary education ranged between 9 and 13 percent in the late 1950's. In 1960-61, a year of unusually heavy development expenditures on secondary education, it reached the unusually high figure of about 33 percent and fell back only to 19 percent in 1961-62, a year of unusually high recurrent expenditures on secondary education. The figures for the fiscal years 1962-63 through 1966, which range between 8 and 13 percent, merely repeat the pattern of the 1950's.

*Since 1966.*—The Two-Year Development Plan published in 1968 states: "One important weakness of the educational system as it has developed, has been the *growing* imbalance between the different levels of education." Referring to the data for the years 1960-61 through 1967-68 which are reproduced in table 5, the plan noted that the components of educational expenditures during this period showed sharply different trends. "By 1967-68, the proportion of educational expenditures on secondary schools had fallen to under half its 1960-61 level, while the proportion spent on colleges and universities had nearly doubled."<sup>13</sup> As indicated above, however, 1960-61 was a year of exceptionally high expenditure on secondary schools and, except for this year, secondary education had over a period of many years consistently received a small proportion of educational expenditures. Its meager share was not a post-1960-61 development.

Regardless of the way in which the figures were analyzed and the conclusion reached, the National Liberation Council clearly recognized by 1968 the need for redistributing expenditures on the different levels of the system. Secondary education had received too little and higher education, too much.

<sup>13</sup> Republic of Ghana, *Two-Year Development Plan . . .*, Accra-Tema: State Publishing Corporation, 1968, p. 81.

The policy of reducing the proportion spent on higher education and increasing the proportion devoted to other levels—and particularly the secondary level—of the system seems to have remained a consistent policy of all recent governments. The efforts to hold down expenditures on higher education has taken various forms. Fairly soon after the 1966 change of government, steps were taken to reduce expenditures on overseas scholarships. The cost of scholarships for higher education students was brought down well below the 1965 level—presumably as a result of steps taken concerning overseas scholarships—and the proportion of recurrent educational expenditures devoted to them fell from more than 8 percent in 1965 to less than 4 percent in 1970-71.

Efforts were also made to hold in check the rate of increase in subventions to the universities for their recurrent and capital expenditures. Although recurrent expenditures on higher education continued their upward trend, the annual increase was fairly moderate until 1970-71. The universities were not living within these limits, however. The University of Ghana, for example, by May 1969 had accumulated a recurrent deficit of Nc3.3 million, which the Government later took over completely. In 1972 the vice chancellor reported a remaining balance of deficits on the University's expenditure during 1968-69 and 1969-70, amounting to Nc2,660,835, financed by overdrafts from the University's bankers.

An exercise was carried out "to ascertain more accurately the financial obligations to which the universities have actually committed themselves and to make adequate provision for these in the budget so as to avoid the haphazard emergence of financial crises which plagued university administrations."<sup>14</sup> Mainly because of the results of this review (not the limited expansion envisaged in student numbers or in fields of instruction and research), the 1970-71 budget provided for a very large increase in the subventions to the three university institutions proper. These were to rise from Nc9.9 million the previous year to Nc12.8 million, and all recurrent subventions to higher education (including grants to the institutions' constituent schools and institutes) from Nc13.3 to Nc16.9 million. The budget statement of the Minister of Finance and Economic Planning declared:

It is expected that with the high levels of allocation that have been made to them, the universities will be able, in the coming years, and starting from now, to manage their finances more systematically and thereby to avoid the accumulation of arrears and the disruption of programmes.<sup>15</sup>

The percentage of all recurrent educational expenditures devoted to higher education (excluding scholarships) had twice in the post-coup

<sup>14</sup> Republic of Ghana, *Budget Statement for 1970-71* by Hon. J. H. Mensah, M.P., Minister of Finance and Economic Planning, Accra: Ministry of Finance and Economic Planning, 1970, p. 28.

<sup>15</sup> *Ibid.*

years fallen below the 1965 level, but in 1970-71, as a result of the larger subventions, this percentage—almost 19 percent—was again higher than in 1965.

It would appear that the budgetary burden of large recurrent grants to the higher education institutions will continue.

Reducing development (capital) subventions to the universities proved easier than reducing the recurrent ones. By 1970-71, higher education's share of all development expenditures on education—which had stood at about 60 percent up through 1966-67—had been cut back severely to 23 percent. As the result of cuts in both scholarship and development costs, the percentage of the total educational expenditures devoted to higher education (including scholarships) had dropped from 31.3 percent in 1965 to 22.5 percent in 1970-71.

Before the voting of the 1970-71 budget the vice chancellors of both the University of Ghana and the University of Science and Technology had more than once described the effects on their institutions of the country's difficult financial situation and the budgetary restraints on both their recurrent and capital expenditures.

Speaking in March 1969, the University of Ghana's vice chancellor declared that the Government's recurrent subvention to the University increased by only 46 percent between 1961-62 and 1968-69, during which time its enrollment nearly quadrupled. The money available per student place had dropped precipitously over the 7 years while the cost of living index was rising by more than 70 percent.<sup>16</sup>

The following year he said: "The academic buildings . . . were built for a student population of a thousand. Now we have more than exhausted this capital investment and the main academic departments, with the exception of a few, are now all hopelessly overcrowded and urgently require new buildings." Only three permanent buildings had been constructed since 1962 and various new departments had been housed in temporary buildings.<sup>17</sup>

Having earlier in the decade doubled up its students in their residence halls and built low-cost attached annexes, the University had residential places for 2,400 students and could admit beyond this number only non-residential students—mostly graduate students. At the beginning of 1969-70 the University turned away 150 applicants who met its minimum requirements and the vice chancellor explained:

We simply have not, in spite of the considerable sums of money spent by Government on this institution, adequate financial resources for both the capi-

<sup>16</sup> "Vice-Chancellor's Address to Congregation 15th March, 1969." *University of Ghana Reporter*, 8:17:174, May 23, 1969.

<sup>17</sup> "Vice-Chancellor's Address to Congregation 14th March, 1970." *University of Ghana Reporter*, 9:22:506, June 5, 1970.

tal and recurrent expenditure to provide the appropriate accommodation in the teaching and research departments and in the halls of residence.<sup>18</sup>

The vice chancellor of the University of Science and Technology stated in February 1970 that his university was at "a stage of limited growth" and was in no hurry to increase its student numbers (then 1,500), partly because of "rising costs on one hand and increasing cuts in our recurrent subvention on the other." He said, further, that "physical development on this campus has been at a virtual standstill over the past few years."<sup>19</sup>

In addition to trying to hold down the cost of higher education, the Government also cut back the large Central Government recurrent expenditures on the free textbook scheme (at the pre-university level); parents were now required to contribute to the cost of the books. Such expenditures dropped from Nc3.6 million in 1965 to about Nc2 million in 1970-71, and the percentage of total recurrent educational expenditures devoted to the scheme dropped from 6.4 to 2.2 percent.

During the same period recurrent expenditures on the middle schools had doubled and those on primary and middle schools together had increased by more than 80 percent. The percentage of recurrent educational expenditures devoted to elementary education had increased from almost 36 percent in 1965 to almost 40 percent in 1970-71. As a result, the percentage of recurrent educational expenditures devoted to elementary education and the textbook scheme together remained the same as in 1965—42 percent.

In the years following the 1966 change of government, secondary education received a considerably higher proportion of educational expenditures than it had in the past. The proportion of the development expenditures on education devoted to this level—less than 14 percent in 1965—shot up to 30 percent in each of the years during the period 1967-69 through 1970-71. Recurrent expenditures on secondary education, including those on scholarships, rose from 11 percent of the recurrent educational expenditures in 1965 to 15 percent in 1970-71. The overall effect was an increase in the percentage of total educational expenditures (both recurrent and development) devoted to this important middle level from 11 percent in 1965 to 17 percent in 1970-71.

#### *Summary: 1970-71*

To sum up, as of 1970-71 Ghana's Government was spending on the formal educational system a total of Nc92 million in recurrent expenditures alone and a total of Nc101 million in recurrent and development expendi-

<sup>18</sup> "Matriculation Address Delivered by the Vice-Chancellor . . . 29th November, 1969." *University of Ghana Reporter*, 9:8:10B-9, Jan. 16, 1970.

<sup>19</sup> "Vice-Chancellor's Congregation Address February 28, 1970." *Annual Report 1968-69*, University of Science and Technology, Kumasi, p. 13.

tures. Education was taking 22 percent of the recurrent budget and 19 percent of the total (recurrent and development) budget.

By Level or type of schooling the recurrent expenditures were distributed approximately as follows:

	<i>Amount</i> (millions of new cedis)	<i>Percent</i>
<i>Total</i> -----	91.6	100.0
Primary -----	24.0	26.2
Middle -----	12.4	13.6
Secondary <sup>1</sup> -----	14.1	15.3
Teacher training -----	9.7	10.6
Other pre-university general education <sup>2</sup> -----	5.6	6.1
Technical -----	1.9	2.1
Higher Education <sup>1</sup> -----	20.6	22.5
Other -----	3.3	3.6

<sup>1</sup> Including scholarships.

<sup>2</sup> Including expenditures on textbooks.

Speaking in 1971, the then Prime Minister presented the following approximate costs per pupil, which had been calculated on the basis of the Central Government's 1969-70 budget.<sup>20</sup>

	<i>Amount per pupil</i> (new cedis)
Primary -----	20
Middle -----	20
Secondary -----	199
Teacher training -----	443
Technical -----	317
University -----	2,962

<sup>20</sup> Republic of Ghana. *Students' Loan Scheme* . . . . loc. cit. P. 9.

**Table 3.—Total Central Government expenditures, Central Government expenditures on education,<sup>1</sup> and percent of the latter to the former: Fiscal years 1953-54—1970-71**

[Amounts in millions of New Cedis.<sup>2</sup>]

Year	All Central Government expenditures			Expenditures on education			Expenditures on education as percent of all expenditures			
	Total	Recurrent	Development	Total	Recurrent	Development	Total	Recurrent	Development	Total
1953-54	90.4	59.9	30.5	13.1	8.9	4.2	14.4	14.8	13.7	14.4
1954-55	95.4	66.7	28.7	14.5	9.7	4.8	15.2	14.6	16.8	15.2
1955-56 <sup>3</sup>	140.2	93.0	47.2	18.9	13.4	5.5	13.5	14.4	11.7	13.5
1956-57	120.6	86.6	33.9	14.9	12.9	2.0	12.4	14.9	5.8	12.4
1957-58	127.6	94.4	33.2	17.9	13.5	4.4	14.0	14.3	13.3	14.0
1958-59	161.8	110.0	51.9	18.6	14.8	4.0	11.5	13.4	7.44	11.5
1959-60	176.0	115.8	60.1	22.8	14.9	7.9	12.9	12.9	13.1	12.9
1960-61	<sup>4</sup> 233.0	151.5	81.5	29.9	20.4	9.5	12.9	13.5	11.7	12.9
1961-62 <sup>5</sup>	<sup>5</sup> 284.5	205.8	78.7	<sup>6</sup> 37.0	<sup>7</sup> 31.5	<sup>8</sup> 5.5	13.0	15.3	7.0	13.0
1962-63	<sup>6</sup> 268.3	159.6	105.8	45.7	36.9	8.8	17.0	23.2	8.3	17.0
1963-64 <sup>10</sup>	<sup>7</sup> 414.2	236.1	141.3	69.9	59.3	10.6	16.9	25.1	7.3	16.9
1965	<sup>8</sup> 369.5	219.8	141.8	66.0	56.6	9.4	17.9	25.8	6.6	17.9
1966 <sup>11</sup>	<sup>9</sup> 160.2	113.4	46.7	33.5	31.1	2.4	20.8	27.4	5.1	20.8
1966-67	302.3	226.9	75.4	68.5	62.7	5.7	22.7	27.7	7.6	22.7
1967-68 <sup>12</sup>	359.2	284.6	74.6	<sup>10</sup> 80.8	<sup>11</sup> 72.8	<sup>12</sup> 8.0	22.5	25.6	10.7	22.5
1968-69 <sup>13</sup>	369.8	310.0	59.8	<sup>11</sup> 75.9	<sup>12</sup> 71.6	<sup>13</sup> 4.3	20.5	23.1	7.2	20.5
1969-70 <sup>14</sup>	468.6	346.1	122.6	<sup>12</sup> 88.3	<sup>13</sup> 77.5	<sup>14</sup> 10.8	18.8	22.4	8.8	18.8
1970-71 <sup>15</sup>	519.7	382.2	137.5	<sup>13</sup> 97.1	<sup>14</sup> 84.8	<sup>15</sup> 12.3	18.7	22.2	8.9	18.7

chives) were as follows (in millions of New Cedis): Total—71.8; recurrent—65.1; development—6.7.

<sup>11</sup> Actual expenditures on education (excluding the Academy of Sciences and the Archives) were as follows (in millions of New Cedis): Total—75.8; recurrent—71.5; development—4.6.

<sup>12</sup> Figures are from the original estimates (budget). They are not actual expenditures.

<sup>13</sup> A more recent source (The Annual Estimates for 1970-71) indicates that the 1969-70 budget provided for the following expenditures (in millions of New Cedis) by the Ministry of Education, Culture and Sports, the National Council for Higher Education, and the Scholarships Secretariat: Total—84.0; recurrent—77.3; development—6.7. These figures exclude expenditures by the Academy of Sciences and the Archives. Actual expenditures on education (excluding the Academy of Sciences and the Archives) were as follows (in millions of New Cedis): Total—88.1; recurrent—81.7; development—6.4.

<sup>14</sup> Includes only expenditure by the Ministry of Education, Culture and Sports, the National Council for Higher Education, and the Scholarships Secretariat. Excludes expenditures by the Academy of Sciences and the Archives. Actual expenditures on education (excluding the Academy of Sciences and the Archives) were as follows (in millions of New Cedis): Total—101.2; recurrent—91.6; development—9.6.

Note.—Because of rounding detail may not add to totals.

Sources: (1) For 1953-54—1961-62: Ghana, Seven-Year Development Plan 1953-64 to 1969-70, Accra: Government Printing Department, 1964, p. 253. (Amounts in the source were in millions of Ghanaian pounds. These have been converted to amounts in millions of New Cedis at the rate 2 New Cedis = 1 pound.) (2) For 1962-63—1966: Republic of Ghana, Central Bureau of Statistics, 1965-66 Statistical Year Book, Accra-Tema: Ghana Publishing Corporation, 1969, pp. 189-93. (3) For 1966-67: Republic of Ghana, Central Bureau of Statistics, Quarterly Digest of Statistics, XVII: 2, 49, 50, June 1968, Republic of Ghana, Two-Year Development Plan, Accra-Tema: State Publishing Corporation, 1968, p. 8. (4) For 1967-68: Ghana, The Financial Statement 1968-69, Accra-Tema: Ghana Publishing Corporation, 1968, p. 3. (5) For 1968-69 and 1969-70: Ghana, The Financial Statement 1968-70, Accra-Tema: Ghana Publishing Corporation, 1969, pp. 3, 13. For 1970-71: Ghana, The Annual Estimates for 1970-71, XVIII: 1 and 2: XIV: 118, 128, 140, Ghana, The Financial Statement 1970-71, Accra-Tema: Ghana Publishing Corporation, 1970, p. 15.

The sources used for this table, those presenting both total Government expenditures and educational expenditures, do not define the term "education" by means of a listing of the activities covered by the term. Expenditures on "education" for some years may include expenditures on activities or organizations that do not form part of the formal educational system (such as the Academy of Sciences or the Archives) but, at times, have been the responsibility of the Ministry of Education or have been included in the education sector budget. Those for other years may exclude such expenditures. Thus expenditures on "education" presented in the table may not be strictly comparable from year to year. They may also differ from expenditures on education presented in other sources and in the more detailed tables in this study.

<sup>15</sup> The New Cedi (N¢), the unit of Ghana's present currency replaced the Cedi early in 1967. The Cedi in turn had replaced the Ghanaian pound in July 1965 when the country shifted to a decimal currency system. Figures given in the sources in pounds or Cedis have been converted into New Cedis at the following rates: £ 1 = 2.4 Cedis = 2.0 New Cedis.

<sup>16</sup> 15-month period ending June 30, 1956.

<sup>17</sup> A more recent official source gives a smaller figure, 227.3 million New Cedis (113.7 million pounds), Ghana, Two-Year Development Plan, p. 82.

<sup>18</sup> 15-month period ending Sept. 30, 1962.

<sup>19</sup> A more recent official source shows total 1961-62 recurrent and development expenditure of 309.7 million New Cedis (154.8 million pounds) and recurrent and development expenditure on education of 44.5 million New Cedis (22.25 million pounds), or 14.4 percent of the total. 1965 Statistical Year Book, p. 190.

<sup>20</sup> This figure is smaller than the figure given in a Ministry of Education report and shown in table 4 (31.7 million New Cedis). It may exclude certain educational expenditures.

<sup>21</sup> This figure is considerably higher than the one given in a Ministry of Education report and shown in table 4 (1.9 million New Cedis). It may include expenditures on other than the formal educational system.

<sup>22</sup> Includes, in addition to total recurrent and development expenditure, an expenditure for "financial claims."

<sup>23</sup> 15-month period ending Dec. 31, 1964.

<sup>24</sup> 6-month period ending June 30, 1966.

<sup>25</sup> Figures are from the revised estimates (budget). None represents actual expenditures.

<sup>26</sup> Actual expenditures on education (excluding the Academy of Sciences and Ar-



Table 4.—Central Government recurrent and development expenditures on the formal education system and related activities, as presented in Department or Ministry of Education reports, by purpose of expenditure: Fiscal years 1949-50 and 1951-52—1961-62

(Amounts in thousands of Ghanaian pounds.)

... Under "AMOUNT" means source gave no figure; under "PERCENT" means that percent could not be calculated because of insufficient data.)

Purpose of expenditure	1949-50	1951-52	1952-53	1953-54	1954-55	1955-56 <sup>a</sup>	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62 <sup>a</sup>
	2	3	4	5	6	7	8	9	10	11	12	13
	AMOUNT											
All expenditures	1,728.8	3,353.6	6,533.9	6,567.5	7,306.3	.....	7,451.6	8,842.5	9,197.1	.....	.....	16,783.2
Total	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Primary and middle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Secondary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Teacher training	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Technical	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Higher education	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
University College	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
College of Technology	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scholarships	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Higher education	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Secondary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

See footnotes at end of table



	1,577.7	2,012.9	3,779.9	4,507.2	4,905.6	(*)	6,471.8	106,641.5	117,178.9	127,334.6	139,011.7	145,847.4
<b>Recurrent</b>												
<b>Total</b>	1,577.7	2,012.9	3,779.9	4,507.2	4,905.6	(*)	6,471.8	106,641.5	117,178.9	127,334.6	139,011.7	145,847.4
Primary	443.7	859.4	1,467.2	1,561.4	1,612.3	2,139.7	2,095.0	2,359.1	2,547.7	2,707.0	3,485.7	5,541.9
Middle	85.8	146.4	330.2	329.3	348.4	486.1	469.5	543.5	513.2	595.0	788.3	2,094.4
Secondary	155.5	234.2	460.8	609.1	660.2	1,007.4	879.4	819.3	898.6	975.0	1,028.0	2,779.2
Teacher training	36.8	67.0	99.6	96.3	107.2	36.1	154.7	151.6	165.0	334.5	115.3	177.9
Technical	212.4	366.1	558.0	910.0	950.8	.....	1,313.4	1,361.0	1,505.6	.....	1,497.6	1,765.0
Higher education	.....	316.1	.....	.....	.....	.....	733.4	749.1	910.0	850.0	865.0	865.0
University College	.....	50.0	.....	.....	.....	.....	580.0	611.9	595.6	.....	632.6	900.0
College of Technology	71.5	119.1	189.4	172.5	193.3	113.5	206.4	214.5	251.5	480.5	214.6	237.1
Scholarships	.....	79.3	155.9	122.8	129.4	.....	126.9	130.0	130.0	330.6	.....	.....
Higher education	.....	29.2	31.5	49.7	64.0	.....	95.0	83.5	120.0	130.0	201.2	276.4
Secondary	.....	11.3	.....	.....	.....	.....	4.5	1.0	1.5	20.0	13.4	20.7
Other	572.0	220.1	355.9	458.7	502.6	756.5	673.4	574.3	639.4	664.8	655.8	993.9
Other	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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	151.1	1,340.7	2,754.1	2,060.1	2,400.7	(**)	979.7	12,201.0	15,928.2	(**)	109,935.8	
<b>Development</b>												
<b>Total</b>	151.1	1,340.7	2,754.1	2,060.1	2,400.7	(**)	979.7	12,201.0	15,928.2	(**)	109,935.8	
Primary and middle	.....	.....	872.8	1,299.9	793.1	658.3	175.3	26.9	51.9	166.3	271.6	75.7
Secondary	.....	.....	.....	.....	.....	.....	119.4	132.0	168.0	610.5	3,758.3	104.7
Teacher training	.....	.....	.....	.....	.....	.....	47.7	237.0	240.7	96.0	42.6	191.9
Technical	.....	.....	.....	.....	.....	.....	48.7	93.0	81.7	613.1	143.4	37.0
Higher education	.....	.....	1,686.0	602.5	1,543.5	.....	423.1	1,563.5	1,207.3	.....	.....	526.5
University College	.....	.....	.....	530.0	1,193.5	.....	240.0	1,240.5	1,182.3	.....	.....	202.2
College of Technology	.....	.....	.....	72.5	350.0	.....	183.1	323.0	25.0	.....	.....	324.3
Scholarships	55.0	.....	195.3	157.7	64.1	.....	84.9	.....	.....	.....	.....	.....
Other	.....	.....	.....	.....	.....	.....	80.6	.....	.....	150.0	.....	.....

Table 4.—Central Government recurrent and development expenditures on the formal education system and related activities, as presented in Department or Ministry of Education reports, by purpose of expenditure: Fiscal years 1949-50 and 1951-52—1961-62—(Continued)

Purpose of expenditure	1949-50	1951-52	1952-53	1953-54	1954-55	1955-56*	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62*
1	2	3	4	5	6	7	8	9	10	11	12	13
	PERCENT											
<b>All expenditures</b>												
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary and middle .....							36.8	33.1	34.2			46.0
Secondary .....							10.7	8.5	9.1			17.2
Teacher training .....			54.3	65.0	55.5		12.4	11.9	12.5			14.2
Technical .....							2.7	2.8	2.7			1.3
Higher education .....			34.3	23.0	34.1		23.3	33.1	29.8			13.7
University College .....							13.1	22.5	23.0			6.4
College of Technology .....							10.2	10.6	6.8			7.3
Scholarships .....							3.9	2.4	2.8			1.8
Higher education .....			5.9	5.0	3.5		2.8	1.5	1.4			1.7
Secondary .....			5.4	4.3	2.6		1.0	.9	1.3			.1
Other .....			.5	.8	.9		.1	(?)	(?)			5.9
Other .....			5.4	7.0	6.9		10.1	6.5	7.0			

	Recurrent										100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0											
<b>Total</b> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Primary</b> .....	28.1	42.7	38.8	34.6	32.9	32.4	35.5	35.5	35.5	35.5	36.9	36.9	36.9	36.9	36.9	38.7	38.7	35.0	35.0	35.0	35.0
Middle .....			9.0	7.3	7.1	7.3	8.2	8.2	7.2	7.2	8.1	8.1	8.1	8.1	8.1	8.8	8.8	8.8	13.2	13.2	13.2
Secondary .....	5.4	7.3	8.2	8.2	10.8	10.5	9.3	9.3	9.2	9.2	9.9	9.9	9.9	9.9	9.9	11.4	11.4	11.4	17.5	17.5	17.5
Teacher training .....	9.9	11.6	12.2	13.5	13.5	13.6	12.3	12.3	12.5	12.5	13.3	13.3	13.3	13.3	13.3	13.6	13.6	13.6	13.9	13.9	13.9
Technical .....	2.3	3.3	2.6	2.1	2.2	2.4	2.3	2.3	2.3	2.3	4.6	4.6	4.6	4.6	4.6	1.3	1.3	1.3	1.1	1.1	1.1
Higher education .....	13.5	18.2	14.8	20.2	19.4	20.3	20.5	20.5	21.0	21.0	.....	.....	.....	.....	.....	16.6	16.6	16.6	11.1	11.1	11.1
University College .....	.....	15.7	.....	.....	.....	11.3	11.3	11.3	12.7	12.7	11.6	11.6	11.6	11.6	11.6	9.6	9.6	9.6	5.5	5.5	5.5
College of Technology .....	.....	2.5	.....	.....	.....	9.0	9.2	9.2	8.3	8.3	.....	.....	.....	.....	.....	7.0	7.0	7.0	5.7	5.7	5.7
Scholarships .....	4.5	6.0	5.0	3.8	3.9	3.2	3.2	3.2	3.5	3.5	6.6	6.6	6.6	6.6	6.6	2.4	2.4	2.4	.....	.....	.....
Higher education .....	.....	3.9	4.1	2.7	2.6	2.0	2.0	2.0	1.8	1.8	4.5	4.5	4.5	4.5	4.5	.....	.....	.....	.....	.....	.....
Secondary .....	.....	1.5	.....	.....	.....	1.1	1.3	1.3	1.6	1.6	1.8	1.8	1.8	1.8	1.8	2.2	2.2	2.2	1.7	1.7	1.7
Other .....	.....	.6	.9	1.1	1.3	.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other .....	36.3	10.9	9.4	10.2	10.2	10.4	8.7	8.7	8.9	8.9	9.1	9.1	9.1	9.1	7.3	7.3	7.3	6.3	6.3	6.3	6.3
<b>Development</b> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Total</b> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Primary and middle</b> .....	63.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.1
Secondary .....	.....	.....	31.7	63.1	33.0	17.9	6.0	6.0	8.7	8.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.2
Teacher training .....	.....	.....	.....	.....	.....	12.2	10.8	10.8	12.5	12.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.5
Technical .....	.....	.....	.....	.....	.....	5.0	4.2	4.2	4.2	4.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.0
Higher education .....	.....	.....	61.2	29.2	64.3	43.2	71.0	71.0	62.6	62.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	56.3
University College .....	.....	.....	.....	25.7	49.7	24.5	56.4	56.4	61.3	61.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.6
College of Technology .....	.....	.....	.....	3.5	14.6	18.7	14.7	14.7	1.3	1.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.7
Scholarships .....	36.4	.....	7.1	7.7	2.7	8.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other .....	.....	.....	.....	.....	.....	8.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

- <sup>1</sup> Ghana's unit of currency until 1965. One Ghanaian pound equals two New Cedis.
- <sup>2</sup> Fifteen-month period ending June 30, 1956.
- <sup>3</sup> Fifteen-month period ending Sept. 30, 1962.
- <sup>4</sup> Includes small amount of development expenditures not shown in column and possibly incomplete recurrent expenditure figure.
- <sup>5</sup> Sum of detailed recurrent expenditures given by the source. Excludes expenditures by the Scholarships Secretariat on scholarships for university education and overseas courses, grants to statutory bodies, and, possibly, other items.
- <sup>6</sup> Includes planned rather than actual development expenditures.
- <sup>7</sup> Excludes expenditure by the Scholarships Secretariat on scholarships for university education and overseas courses, for which £1,034,970 had been budgeted.
- <sup>8</sup> Excludes expenditure by the Scholarships Secretariat for which £1,668,330 had been budgeted.
- <sup>9</sup> Source gave no figure, but indicated that recurrent expenditures, excluding expenditures on higher education and certain administrative expenses, totaled £5,118,700. Another official source gave a total recurrent expenditure figure of £6.7 million or ₵13.4 million, shown in table 3.
- <sup>10</sup> Sum of detail expenditures given by the source. Possibly excludes certain expenditures. Another official source gave the higher figure £6.75 million or ₵13.5 million, shown in table 3.
- <sup>11</sup> Sum of detail expenditures given by the source. Possibly excludes certain expenditures. Another official source gave the higher figure £7.39 million or ₵14.8 million, shown in table 3.
- <sup>12</sup> Sum of detail expenditures given by the source. Excludes grant to Kumasi College of Technology and, possibly, other items. Another source gives the figure £7.45 million or ₵14.9 million, shown in table 3.
- <sup>13</sup> Sum of detailed expenditures given by the source. Excludes expenditures by the Scholarships Secretariat, grants to statutory bodies, and, possibly, other items. Another official source gives the figure £10.21 million or ₵20.4 million, shown in table 3.
- <sup>14</sup> Sum of detailed expenditures given by the source. Excludes expenditures by the Scholarships Secretariat, grants to statutory bodies, and, possibly, other items. Another official source gives the figure £15.76 million or ₵31.5 million, shown in table 3.
- <sup>15</sup> The cost of administration (including staff salaries, travel and transport, and other expenses) and, for certain years, various other items.
- <sup>16</sup> Source gave no figure. Another official source gave figure £2.76 million or ₵5.5 million, shown in table 3.

<sup>17</sup> Total given by the source. Includes small amount not included in detailed figures in the column.

<sup>18</sup> Source gave no figure. The total of the detailed figures given in the source and presented in this column—a total which excludes expenditures on higher education—is £4,215,900. Another official source gave the total figure—£4.76 million or ₵9.5 million, shown in table 3.

<sup>19</sup> Sum of the detailed expenditures given by the source and presented in this column. Possibly excludes certain items. Another source gives the considerably higher figure £2.71 million or ₵5.5 million, shown in table 3, but this may include expenditures on other than the formal education system.

<sup>20</sup> Source indicated this figure was the estimated provision for this item rather than actual expenditure. The 5 figures of this type in this column add to £1,635,900, but the source that indicated expenditures on the same items totaled £1,477,200. Another source indicates that total development expenditures on education were £3.93 million or ₵7.9 million, as shown in table 3, but this figure may include expenditures on other than the formal education system.

<sup>21</sup> Before 1959-60, development funds were used to provide scholarships for higher education and professional training, both at home and overseas.

<sup>22</sup> Less than 0.1 percent.

Note.—Amounts from the cited sources. Percentages calculated by author.

Sources: (1) For 1949-50: Gold Coast. Report on the Education Department for the Year 1949-50. Accra: Government Printing Department, 1951. pp. 17, 32, 33. (2) For 1951-52: Gold Coast. Report on the Education Department for the Year 1951. Accra: Government Printing Department, 1953. pp. 17, 18, 35, 36. (3) For 1952-53: Gold Coast Government. Annual Report of the Education Department for the Year 1952. Accra: Government Printing Department, 1954. pp. 21, 22, 46. (4) For 1953-54: Gold Coast Government. Annual Report of the Education Department for the Year 1953-54. Accra: Government Printer, 1956. pp. 20, 21. (5) For 1954-55: Gold Coast Government. Annual Report of the Education Department for the Year 1954-55. Accra: Government Printer, 1956. pp. 18, 19, 40. (6) For 1955-56: Ghana, Ministry of Education. Education Report for the Year 1956. Accra: Government Printer, 1957. pp. 1, 13. (7) For 1956-57: Ghana, Ministry of Education. Education Report for the Year 1957. Accra: Government Printer, 1960. pp. 5, 6, 34. (8) For 1957-58, 1958-59, and 1959-60: Ghana, Ministry of Education. Education Report for the Years 1958-1960 (January 1959 to August 1960). Accra: Ministry of Information and Broadcasting on behalf of the Ministry of Education, 1962. pp. 12-15, 50. (9) For 1960-61 and 1961-62: Ghana, Ministry of Education. Education Report 1960-62. Accra: Ministry of Information and Broadcasting on behalf of the Ministry of Education, 1963. pp. 3-5, 33.

Table 5.—Central Government expenditures on education, by purpose of expenditure: Fiscal years 1960-61—1967-68<sup>1</sup>

(Amounts in thousands of New Cedis.)

Item	1960- 61	1961- 62 <sup>2</sup>	1962- 63	1963- 64 <sup>3</sup>	1965	1966- 67	1967- 68 <sup>4</sup>
AMOUNT							
Total .....	29,947	34,410	45,731	56,562	66,003	68,460	80,586
Administration .....	1,557	1,601	1,997	2,429	3,281	2,553	4,509
Primary and middle schools .....	9,070	11,516	17,419	24,062	23,922	27,144	28,386
Secondary schools .....	9,990	6,648	3,839	7,555	7,903	8,576	11,431
Teacher-training colleges and universities .....	6,491	10,974	16,502	19,164	28,262	26,924	32,333
Technical training institutions ..	1,086	937	1,234	1,566	1,393	1,864	2,261
Adult education, libraries, and museums .....	1,246	1,444	891	1,526	1,082	1,187	1,394
Other .....	507	1,291	3,849	260	161	213	272
PERCENT							
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Administration .....	5.2	4.6	4.4	4.3	5.0	3.7	5.6
Primary and middle schools .....	30.3	33.5	38.1	42.5	36.2	39.7	35.2
Secondary schools .....	33.4	19.3	8.4	13.4	12.0	12.5	14.2
Teacher-training colleges and universities .....	21.7	31.9	36.1	33.9	42.8	39.3	40.1
Technical training institutions ..	3.6	2.7	2.7	2.8	2.1	2.7	2.8
Adult education, libraries, and museums .....	4.2	4.2	1.9	2.7	1.6	1.7	1.7
Other .....	1.7	3.8	8.4	.5	.2	.3	.3

<sup>1</sup> Two of the fiscal years, 1961-62 and 1963-64, actually covered 15 months. The figures given by the source for both of these years pertain to 12 months of the 15-month fiscal year. Source gave no figures for the 6-month fiscal year 1966, which ended June 30, 1966; this fiscal year is excluded.

<sup>2</sup> Fiscal year 1961-62 actually covered the 15-month period ending Sept. 30, 1962. The figures given by the source and presented in this column apparently pertain to 12 months of this year.

<sup>3</sup> Fiscal year 1963-64 actually covered the 15-month period October 1963—December 1964. Figures given by the source and presented in this column are for the 12-month period October 1963—September 1964.

<sup>4</sup> Figures in this column were estimated. They are not actual expenditures.

Source: Republic of Ghana. Two-Year Development Plan; From Stabilisation to Development: A Plan for the Period Mid-1968 to Mid-1970. July 1968, p. 82.

**Table 6.—Central Government expenditures on the formal education system and related activities, by purpose of expenditure: Fiscal years 1965—1970-71**

(Amounts in thousands of New Cedis.)

... indicates that source gave no figure.)

Purpose	1965	1966*	1966-67	1967-68	1968-69	1969-70	1970-71
<b>A M O U N T</b>							
<b>Recurrent and Development</b>							
Total .....	65,863.0	33,333.7	68,049.3	71,753.4	75,829.7	88,071.7	101,181.9
General education .....	39,857.0	19,101.6	42,873.2	45,346.7	47,300.5	57,840.2	66,682.3
Primary and middle .....	20,330.2	10,633.5	24,242.0	25,531.9	27,188.5	33,867.8	38,730.1
Secondary .....	5,692.9	2,231.8	5,694.4	6,759.6	7,169.8	8,847.5	11,852.7
Teacher training .....	7,207.2	4,076.9	7,988.5	9,162.7	9,046.4	10,253.7	10,268.1
Textbooks .....	*3,593.1	*1,425.7	*2,915.7	1,691.2	1,675.4	1,742.9	1,994.0
Other .....	3,033.7	733.8	2,032.9	2,201.6	2,220.8	3,129.2	3,837.5
Technical education and vocational training	1,393.0	1,934.6	1,664.7	1,763.5	1,906.0	2,499.9	2,782.0
Higher education .....	15,949.2	6,904.9	13,928.9	15,036.2	15,475.9	16,310.3	19,355.6
Scholarships .....	6,590.2	4,271.8	7,760.9	7,709.2	8,388.6	8,353.3	9,191.1
Higher education .....	4,649.4	2,534.7	4,505.5	4,073.0	4,439.3	4,963.3	3,458.3
Secondary education .....	1,697.3	1,661.7	3,155.1	3,473.4	3,844.8	4,151.2	5,151.2
Other .....	2,073.6	1,120.7	1,821.7	1,897.9	2,758.5	3,067.9	3,171.1
<b>Recurrent</b>							
Total .....	56,336.6	30,904.4	62,279.3	65,088.6	71,270.0	81,671.2	91,617.6
General education .....	36,498.9	18,549.3	41,131.2	42,529.2	45,252.6	54,742.2	60,637.4

See footnotes at end of table

Primary .....	14,102.3	7,571.2	17,607.3	18,568.3	19,860.9	24,288.6	24,048.2
Middle .....	6,014.1	3,055.5	6,327.6	6,695.1	7,164.6	9,459.9	12,416.5
Secondary .....	4,396.4	1,969.0	4,806.6	4,698.9	5,782.2	6,894.7	8,907.7
Teacher training .....	6,046.0	3,797.6	7,687.0	8,800.9	8,639.9	9,373.7	9,703.5
Textbooks .....	* 3,593.1	* 1,425.7	* 2,915.7	1,691.2	1,675.4	1,742.9	1,994.0
Other .....	2,347.1	730.3	1,787.0	2,075.1	2,130.0	2,983.4	3,567.5
Technical education and vocational training	1,134.1	1,494.2	1,110.0	1,131.2	1,455.1	1,767.8	1,906.4
Technical education .....	1,134.1	1,494.2	1,110.0	978.6	1,236.1	1,616.1	1,717.0
Vocational training .....	.....	.....	.....	152.5	219.0	151.6	189.4
Higher education .....	10,262.9	* 5,468.4	* 10,525.5	11,923.9	13,556.2	14,245.3	17,142.1
University of Ghana .....	4,126.0	2,281.0	4,763.0	4,994.0	6,554.0	6,461.4	7,296.6
University budget .....	3,236.0	1,489.0	2,836.0	3,081.0	4,208.0	4,128.9	4,608.0
Institute of—							
Adult Education .....	240.0	131.0	236.0	200.0	291.0	285.0	350.0
African Studies .....	240.0	143.0	265.0	285.0	321.0	304.0	359.0
Statistical, Social and							
Economic Research .....	50.0	34.0	119.0	100.0	120.0	116.0	116.0
Medical School .....	.....	278.0	915.0	917.0	1,175.0	1,200.0	1,403.6
School of Administration .....	* 360.0	206.0	392.0	411.0	439.0	427.5	460.0
University of Science and Technology .....	2,815.0	1,669.0	3,020.0	3,895.0	3,674.0	4,187.3	5,140.0
University budget .....	2,815.0	1,500.0	2,851.0	3,696.0	3,447.0	3,933.9	4,850.0
College of Art .....	.....	169.0	169.0	199.0	227.0	253.4	290.0
University College of Cape Coast .....	1,920.0	956.0	2,287.0	2,452.0	2,800.0	2,701.3	3,300.0
Other organizations, activities <sup>a</sup> .....	1,374.0	650.0	348.0	527.0	487.0	864.6	1,357.4
Administration <sup>b</sup> .....	27.9	12.4	78.0	56.2	40.8	30.8	48.1
Scholarships .....	6,590.2	4,271.8	7,760.9	7,709.2	8,388.6	8,353.3	9,191.1

Table 6.—Central Government expenditures on the formal education system and related activities,<sup>1</sup> by purpose of expenditure: Fiscal years 1965—1970-71—(Continued)

(Amounts in thousands of New Cedis.)

1 . . . indicates that source gave no figure.<sup>1</sup>

Purpose	AMOUNT						
	1965	1966 <sup>2</sup>	1966-67	1967-68	1968-69	1969-70	1970-71
Higher education .....	4,649.4	2,534.7	4,505.5	4,073.0	4,439.3	4,063.3	3,458.3
Secondary education .....	1,697.3	1,661.7	3,155.1	3,473.4	3,844.8	4,151.2	5,151.2
Other <sup>3</sup> .....	243.5	75.4	100.4	162.7	104.5	138.8	581.6
Other .....	1,850.4	1,120.7	1,751.7	1,795.2	2,617.4	2,562.4	2,740.7
Bureau of Ghana Languages .....	89.9	255.8	75.0	100.1	105.7	131.6	158.7
Art and cultural affairs and sports .....	237.8	262.7	234.3	310.6	937.1	923.0	1,095.4
General administration <sup>4</sup> .....	1,522.7	602.2	1,442.4	1,384.5	1,574.6	1,507.8	1,486.6
<b>Development</b>							
Total .....	9,526.5	2,429.2	5,770.0	6,664.8	4,559.6	6,400.6	9,564.3
General education .....	3,358.1	552.3	1,742.0	2,817.5	2,047.9	3,098.0	6,044.9
Primary and middle .....	213.8	6.8	307.1	268.5	163.0	119.3	2,265.4
Secondary .....	1,296.5	262.8	887.8	2,060.7	1,387.6	1,952.9	2,945.0
Teacher training .....	1,161.2	279.3	301.5	361.8	406.5	880.0	564.6
Other .....	686.6	3.5	245.9	126.5	90.8	145.8	270.0
Technical education and vocational training	258.9	440.4	554.7	632.3	450.9	732.1	875.6
Higher education .....	5,686.3	1,436.5	3,403.4	3,112.3	1,919.7	2,065.0	2,213.5
University of Ghana .....	1,410.0	238.8	1,016.8	936.4	540.9	713.5	869.2
University budget .....	1,178.0	90.0	485.5	534.1	215.6	397.5	532.7



Institute of —									
Adult Education .....	58.5					42.6	38.8	160.4	24.0
African Studies .....	9.0					14.7	18.5		
Statistical, Social and Economic Research .....			32.5			59.9			
Medical School .....		81.8	269.8			221.6	268.0	155.6	312.5
School of Administration .....	164.5	67.0	229.0			63.5			
University of Science and Technology .....	1,725.3	788.7	952.5			554.0	227.9	639.7	688.3
University College of Cape Coast .....	1,772.6	403.2	1,309.5			1,578.8	1,104.3	526.9	635.9
Other .....	778.4	25.8	124.6			43.1	46.6	184.9	20.0
Other .....	223.2		70.0			102.7	141.1	505.5	430.4
Art and cultural affairs and sports .....	217.2		9.3			66.7	141.1	505.5	430.4
General administration .....	6.0		60.7			36.0			

PERCENT

Recurrent and Development									
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General education .....	60.5	57.3	63.0	63.0	63.2	62.4	65.7	65.9	65.9
Primary and middle .....	30.9	31.9	35.6	35.6	35.6	35.9	38.5	38.5	38.3
Secondary .....	8.6	6.7	8.4	8.4	9.4	9.5	10.0	10.0	11.7
Teacher training .....	10.9	12.2	11.7	11.7	12.8	11.9	11.6	11.6	10.1
Textbooks .....	5.5	4.3	4.3	4.3	2.4	2.2	2.0	2.0	2.0
Other .....	4.6	2.2	3.0	3.0	3.0	2.9	3.5	3.5	3.7
Technical education and vocational training .....	2.1	5.8	2.4	2.4	2.5	2.5	2.8	2.8	2.7
Higher education .....	24.2	20.7	20.5	20.5	21.0	20.4	18.5	18.5	19.1

Table 6.—Central Government expenditures on the formal education system and related activities,<sup>1</sup> by purpose of expenditure: Fiscal years 1965—1970-71—(Continued)

(Amounts in thousands of New Cedis.)

1... indicates that source gave no figure.]

Purpose	1965	1966 <sup>2</sup>	1966-67	1967-68	1968-69	1969-70	1970-71
	AMOUNT						
Scholarships .....	10.0	12.8	11.4	10.7	11.1	9.5	9.1
Higher education .....	7.1	7.6	6.6	5.7	5.9	4.6	3.4
Secondary education .....	2.6	5.0	4.5	4.8	5.1	4.7	5.1
Other .....	3.1	3.4	2.7	2.6	3.6	3.5	3.1
<b>recurrent</b>							
<b>Total</b> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General education .....	64.8	60.0	66.0	65.3	63.5	67.0	66.2
Primary .....	25.0	24.5	28.3	28.5	27.9	29.7	26.2
Middle .....	10.7	9.9	10.2	10.3	10.0	11.6	13.6
Secondary .....	7.8	6.4	7.7	7.2	8.1	8.4	9.7
Teacher training .....	10.7	12.3	12.3	13.5	12.1	11.5	10.6
Textbooks .....	6.4	4.6	4.7	2.6	2.4	2.1	2.2
Other .....	4.2	2.4	2.9	3.2	3.0	3.7	3.9
Technical education and vocational training	2.0	4.8	1.8	1.7	2.0	2.2	2.1
Higher education .....	18.2	17.7	16.9	18.3	19.0	17.4	18.7
Scholarships .....	11.7	13.8	12.5	11.8	11.8	10.2	10.0
Higher education .....	8.3	8.2	7.2	6.3	6.2	5.0	3.8

Secondary education .....	3.0	5.4	5.1	5.3	5.4	5.1	5.6
Other .....	5.3	3.6	2.8	2.8	3.7	3.1	3.0
<b>Development</b>							
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General education .....	35.3	22.7	30.2	42.3	44.9	48.4	63.2
Primary and middle .....	2.2	.3	5.3	4.0	3.6	1.9	23.7
Secondary .....	13.6	10.8	15.4	30.9	30.4	30.5	30.8
Teacher training .....	12.2	11.5	5.2	5.4	8.9	13.7	5.9
Other .....	7.2	.1	4.3	1.9	2.0	2.3	2.8
Technical education and vocational training .....	2.7	18.1	9.6	9.5	9.9	11.4	9.2
Higher education .....	59.7	59.1	59.0	46.7	42.1	52.3	23.1
Other .....	2.3	.....	1.2	1.5	3.1	7.9	4.5

<sup>1</sup> Excluding the National Academy of Sciences and the National Archives, which were included in the education budgets for certain years. Expenditures by the Academy of Sciences have been sizable. For example, its recurrent and development expenditures totaled ₵4.9 million (₵2.35 million recurrent and ₵1.5 million development) in 1965 and ₵5.4 million (₵4.0 million recurrent and ₵1.4 million development) in 1970-71.

<sup>2</sup> 6-month period ending June 30, 1966.

<sup>3</sup> Includes small amount for school materials.

<sup>4</sup> Total given by source. Items add to 5,568.4.

<sup>5</sup> Total given by source. Items add to 10,496.0.

<sup>6</sup> Includes the Institute of Public Administration, University Press, Science Museum, and, in 1965 and 1966, the Ideological Institute.

<sup>1</sup> Administrative expenses of the Central Government agency responsible for university affairs.

<sup>2</sup> Includes scholarships for foreign nationals and administrative expenses of the Scholarships Secretariat.

<sup>3</sup> Includes general administrative expenses of the Ministry of Education and the much larger subventions to various organizations, including the Ghana Library Board and the West African Examinations Council.

Note:—Because of rounding, details may not add to totals.

Sources: For 1965 through 1968-69: Republic of Ghana, Ministry of Education. National Statistics 1968-69, Accra: 1971, pp. 99, 101-07. For 1969-70 and 1970-71: Processed tables supplied by Ministry of Education, Culture and Sports, 1972.

**PART IV.  
Schools and  
Programs of Study**

## I. OVERVIEW

### The Current Structure

Ghana's formal educational system consists of primary, middle, secondary, and commercial schools, technical institutions, teacher-training "colleges," and universities. There are public institutions of all kinds and private primary, secondary, commercial, and technical institutions. In 1971-72 there were about 150 private primary and about 124 private secondary schools. The number of public institutions of each type, together with their enrollments, was as follows:

	<i>Number of institutions</i>	<i>Number of pupils</i>
Primary	6,715	960,403
Middle	3,608	455,398
Secondary	139	56,801
Commercial	9	4,615
Technical	15	8,345
Teacher training	74	19,221
Universities	3	5,064

Like the systems in other former British colonies in Africa, Ghana's is modeled on the English system. It is unique, however, even among the systems of the English-speaking countries of middle Africa, primarily because of its middle schools.

Today, as for many years, the public system of pre-university general education consists largely of three categories of schools: Primary schools, middle schools, and secondary schools.

The 6-year primary and the 4-year middle schools together offer, as they always have, 10 years of elementary education. These 10 years (formerly divided into 6- and 4-year courses) are (as of 1972-73) divided into a basic 8-year course<sup>1</sup> designed to prepare students for secondary school entry at the end of the eighth year and a further 2-year cycle consisting of a 2-year "continuation" course and a 2-year middle school course.

The official policy calls for instruction in a Ghanaian language throughout the first 3 years of the basic course and, where possible, in the subse-

<sup>1</sup> Proposals to reduce the length of the basic course from 8 to 6 or 7 years were under consideration during school year 1972-73.

quent 3 years as well. English is taught as a subject from the first year, and it becomes the sole language of instruction in the upper elementary grades and all schools at a higher level.

In addition to the vast majority of public elementary schools that offer the above courses there are also a few public and private 6-year English-medium primary schools that prepare students to enter secondary school at the end of their sixth year.

Selection of students for secondary school entry is based largely on the Common Entrance Examination taken by students in the final year of the basic 8-year course or the first and second years of the 2-year middle school course. Students in the seventh year of the 8-year course in selected schools and students in the sixth year of the 6-year English-medium primary schools are also allowed to take the examination.

Students who complete the 2-year middle school course without having been selected for secondary school and also students who complete the 2-year continuation course take the Middle School Leaving Certificate Examination.

The general secondary schools offer a basic 5-year course leading to the examination for the School Certificate of the West African Examinations Council, and some give an additional 2-year "Sixth Form" course leading to the General Certificate of Education Advanced-Level examinations. Adequate performance in these examinations constitutes the basic entry requirements for university degree courses.

The public secondary level commercial schools, a comparatively new sector of the public system, also offer a 5-year course and a further 2-year course, each leading to a special commercial examination.

The universities give a great variety of first degree courses, most of which are 3 or 4 years in length; postgraduate degree, diploma, and certificate courses; subdegree level diploma and certificate courses of varying entry levels and lengths; and a few predegree courses offered at "Sixth Form" level.

From the central general education trunk of the structure most students entering teacher training and other vocational courses do so at two major points: At the completion of the 10th year of education (the end of middle school) and at the completion of the basic 5-year course of general secondary education. The majority of teacher-training colleges give the 4-year post-middle school "Certificate A 4-year" course and/or the 2-year post-School Certificate "Certificate A Post-Secondary" course to provide initial training of elementary school teachers. The technical institutions (technical institutes, polytechnics, and training centers), which constitute a comparatively small sector of the system, offer a great variety of vocational and technical courses between the middle school and university level.

Until 1960 the school year in pre-university level schools ran from January to December (the month in which the overseas examination body conducted the School Certificate examination), whereas the university

academic year began in September. Since then both have run from about September to June or July. Previously delayed because the overseas examination body was unable to conduct the School Certificate examination in June and July, the changeover in the school year became possible only in 1960 when the West African Examinations Council was itself able to offer the examination. At that time the 1960 school year was shortened and the 1960-61 school year began in September 1960.

### Length of the Pre-University Program

In the pre-1962-63 structure in which elementary program (6 years primary and 4 years secondary) led to admission for secondary school only from the 8th, 9th, and 10th years, the process through the pre-secondary, secondary, and university programs could be an interminably long process. A student could spend 8 to 10 years in the primary and middle schools, 5 years completing the basic secondary school course, and 2 more years in the Sixth Form—a total of 15 to 17 years—before reaching the point at which he or she might be selected for a university degree course. As of 1960, according to the census data of that year, the largest proportion of students in the fourth year of the basic 5-year secondary school course were already 20 years of age or older, and students in this fourth year still had 3 years to complete before they could enter the university.

For many years, shortening the total program of pre-university studies had been a consistent official goal, but the first major step was not taken until the 1960's, when the new telescoped 8-year program was introduced to prepare students for secondary education in 8 years. The C.P.P. government also shortened the 5-year secondary course to 4 years,<sup>2</sup> but this decision was soon reversed and the course was extended again to 5 years.

Despite introduction of the 8-year course and the new provisions of the 1960's allowing certain sixth- and seventh-year students to take the C.E.E., students are still (as of 1972-73) allowed to take the examination in their 9th and 10th years. Thus, within the structure existing in 1972-73, the pre-university program covers 13 to 17 years, depending upon the point at which the student gains admission to a secondary school. The official or nominal primary school entry age is 6; in fact, in 1971 more than half of the children in Primary Class 1 were 6 years of age. Barring a reform of the structure, children entering school at 6 will be 14, 15, or 16—or in

<sup>2</sup> These changes formed part of a radical reform of the entire structure that the C.P.P. had proposed in the early 1960's. It's draft program for 1963-70, entitled *For Work and Happiness* and approved by the C.P.P. congress in 1962, called not only for reducing elementary education from 10 to 8 years and the secondary course from 5 to 4, but also for replacing the Sixth Form by a 1-year program at the beginning of the university course. *West Africa*, June 23, 1962, p. 1, and Aug. 18, 1962, p. 903.

some cases 12 or 13—when they enter secondary school and 19 to 23 when they enter a university. A reform of the educational structure, including (as indicated above) reduction in the length of the basic primary course from 8 to 6 or 7 years, was under consideration in early 1973.

### **Academic Curriculum of General Education**

The educational system has been highly selective, at certain points retaining only a minority of the students and thus sending out into society the remaining majority with only a general education. The problem of the middle school leaver who has received only this general education and drifts to the towns in a futile search for employment is well known in Ghana, and has been growing as larger numbers have come through the elementary schools and the economy's demand for middle school leavers has declined. The unemployed elementary school leaver—a common and serious problem in many African areas—has become one of Ghana's basic problems. There is apparently a growing problem of the unemployed secondary school leaver as well.<sup>3</sup>

Although it is evidently recognized that a reform of the content of education—i.e., achievement of a relevant curriculum—cannot alone solve these problems, there seems to be a conviction that by instituting in the general education schools programs oriented towards employment the problems will be eased. Efforts have been made in recent years to diversify the curriculum at the upper elementary level by introducing the continuation courses—prevocational programs related to employment opportunities in the students' own areas of residence. Other efforts have been made to diversify the curriculum at the secondary level. Despite the real beginnings that have been made at both levels, the programs of study for most students in the general education schools remain largely academic, preparing the pupil more for the next cycle than for leaving school, even though a much higher percentage of the school-age population is in school today than in the past and most of these students will never be able to go on to higher education or high-level positions.

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<sup>3</sup> These problems are more fully discussed in part V, chapter 2.



## II. ELEMENTARY EDUCATION

As of 1971-72 the elementary school system consisted of 6,715 6-year public primary schools enrolling more than 960,000 children, 3,608 4-year public middle schools enrolling more than 455,000, and about 150 6-year private, fee-charging primary schools.

With the implementation of fee-free public primary school education in 1952, most of the private primary schools then in existence were absorbed into the public system, and with the implementation of fee-free public middle school education in 1961, most of the private middle schools then in existence were similarly absorbed into the public system. Since then, private middle schools have almost disappeared or almost disappeared from the educational scene.

Private fee-charging primary schools, on the other hand, although comparatively very small in number and enrollments, have continued to play a significant role. Apparently well staffed, these schools give a 6-year English-medium course and seem to prepare their students well in the 6-year period for the Common Entrance Examination. Attended by children whose parents can afford it and who do not want them to spend 8 or more years before entering secondary school, they constitute an important secondary preparatory sector of the total system. The following pages describe the much larger system of public primary and middle schools.

### Structure

Ghana's public elementary school system consists (as it has for decades) of 6-year primary schools and 4-year middle schools, and these still, as in the past, offer a total of 10 years of elementary education. Since 1962, however, major changes in the structure of the 10 years of elementary education and its content have been effected.

#### *Reform of the 1960's*

*The Problems.*—Before school year 1962-63, the primary schools offered a 6-year course (Primary Classes 1-6) and the middle schools a further and entirely separate 4-year course (Middle Forms I-IV)<sup>1</sup> devoted, like

<sup>1</sup> Until 1951 the primary schools were called infant junior schools and gave a 6-year course of primary education (Infant Classes 1, 2, 3 and Standard Classes 1, 2, 3). The middle schools were called senior primary schools and gave the 4-year senior primary course (Standards 4, 5, 6, and 7). In 1951 the infant junior schools were redesignated primary schools; Infant Classes 1-3 became Primary Classes 1-3, and Standard Classes 1-3 became Primary Classes 4-6. The senior primary schools were renamed middle schools, and Standards 4-7 became Middle Forms I-IV.

the primary course, to general elementary school subjects. Pupils from Middle Forms II, III, and IV (the 8th, 9th, and 10th years of schooling) were selected for admission to secondary school on the basis of an externally administered selection examination. Thus the entire middle school course was a secondary preparatory course—a link between the primary and secondary school. At the same time that it prepared some students for entry to the academic secondary school, technical institutions, and teacher-training colleges, it provided terminal education for the majority of the pupils who would not continue their education. The course presented little in the way of scientific or prevocational training, and large and increasing numbers of middle school leavers—pupils who had completed it and had not been selected for further education or training—were coming out of the elementary school structure into the world of work having received only a general elementary education. The time when all middle school leavers could be absorbed into white collar clerical jobs had passed. This was one problem.

Another was the excessive duration of the total pre-university program. The proposal for changing the presecondary program to 8 or 6 years and lowering the secondary school entry age had been consistently expressed in official documents over a long period that began even before internal self-government was achieved in 1951. The persistent barriers to such a reform were the low quality of teaching in the primary and middle schools, in which the proportion of untrained pupil teachers was often high, and the fact that, in these circumstances, students could not achieve in a shorter presecondary course the standard of English required to receive their secondary school education in the English language.<sup>2</sup>

*Decisions of the early 1960's.*—Early in the 1960's the Government decided to replace the 10-year program of general elementary education—the 6-year primary and 4-year middle courses—with a new 8-year program of elementary education. The Minister of Education was reported as saying that in view of the pressing need for trained manpower in Ghanaian

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<sup>2</sup> For example, the Accelerated Development Plan for Education, 1951 stated:

It is an object of policy to reduce the present ten-year period preparatory to secondary education until it eventually becomes possible to admit selected pupils directly from the top of the six-year primary course to the first secondary form without any intervening step . . . . Unfortunately it is not possible to raise the age of entry to secondary schools until (a) the quality of the primary course has been improved by a considerable increase of trained teachers, and (b) the standard of English has sufficiently improved in the primary schools to enable younger pupils to follow the instruction in Form I of the secondary schools through this medium.

Gold Coast. *Accelerated Development Plan for Education, 1951*. Accra: Government Printing Department. 1951. p. 4.

children could not afford to spend too long a time in primary, middle, and secondary schools and that this was the reason the Government had decided to cut down the period of primary and middle school education from 10 to 8 years.<sup>3</sup> At the end of the new 8-year course some students would be selected for direct entry into secondary schools while those not selected—the majority—would receive a terminal course preparing them for school leaving. There would be no course that was, like the old middle school course, both secondary preparatory and terminal.

In the later Seven-Year Development Plan, the Government spelled out its idea of the entirely new type of terminal elementary education for the majority of students not selected for secondary school entry at the end of the basic course. It proposed that such students be required to take 2 years of "continuing" education "designed specifically to fit them to enter the labour force." For boys the continuing school curriculum would include "various trades related to the industrial and construction sectors of the economy; modern agricultural techniques; typing and shorthand together with simple office routine; elementary book-keeping and accountancy." Girls would learn "some of the commercial and manipulative skills taught to the boys" and in addition receive "training in such specialised fields as domestic science and handicrafts."<sup>4</sup>

The Government declared that the nature of the terminal segment of education offered in the elementary school system had "to undergo radical changes" of this type.

Formerly, when only a small fraction of the children in Ghana went to school, the elementary schools' products were trained in such a way that they could be fitted into mainly white-collar jobs in which the ability to read and write was required. Other jobs, especially all those operative jobs requiring training in manipulative and technical skills, were filled with people who had not had any schooling. The coming of universal elementary education has changed all that; we must now envisage a situation where all the entrants into the labour force, whatever the occupations they are going into, will have had some schooling. Therefore the purpose of elementary education will no longer be to fit youths to enter white-collar occupations but to fit them for all the jobs that need to be done in the economy. The curriculum, the content, and the whole orientation of the elementary schools have to be changed in the light of the new circumstances.<sup>5</sup>

<sup>3</sup> *West Africa*, June 2, 1962, p. 608. The subsequently approved Seven-Year Plan, which proposed a further shortening of the basic elementary course to 6 years, declared that, unless the course was shortened, nearly 2 million additional pupils would enter elementary school during the plan period and none would be available to the labour force before 1970. The increase in the size of the elementary school population would hardly be supported by the economy" at the same time that an attempt was made to implement a rapid program of economic development. The proposed reductions in length of the educational cycle were expected to make available 300,000 additional employees with varying levels of education before 1970. It was also, the plan stated, "generally agreed that it should not be necessary to take as long as is now taken over the teaching of elementary skills of literacy and comprehension." Ghana, *Seven-Year Plan for National Reconstruction and Development*. Accra: Government Printing Department, 1963, pp. 230-51. *Ghana News*, April 1964, p. 8.

<sup>4</sup> Ghana, *Seven-Year Plan for National Reconstruction and Development*, loc. cit. p. 152.

<sup>5</sup> *Ibid.* p. 151.

*Implementation.*—Part of this overall proposal for restructuring elementary education was implemented. During the period from 1962 through 1968, an entirely new 8-year elementary school program was progressively introduced in the primary and middle schools, so that by 1969 the old 10-year program had been phased out. In 1962–63 the Ministry of Education introduced the new program simultaneously in Primary Classes 1, 2, and 3, for which it issued new subject syllabuses. In subsequent years the children in these classes continued with the new program and the first group to complete the new 8-year course (those in Class 3 in 1962–63) finished it at the end of school year 1967–68 after the 1966 coup. Students in Primary Classes 4–6 and Middle Forms I–IV in 1962–63 continued with the old primary and middle school programs. Thus from 1962–63 through 1968–69 Ghana's elementary schools were offering two different programs of general elementary education—the old 10-year and the new 8-year programs. The old program was finally phased out when the last group of students taking it completed their 10th year at the end of school year 1968–69.

The second part of the original proposal—provision of a 2-year terminal prevocational “continuation” program to all children completing the new 8-year elementary course without being selected for secondary school—has not been fully implemented. Since the first students completed the new 8-year elementary course at the end of school year 1967–68, it fell to the first of the post-coup governments—the National Liberation Council—to make the first decision as to the type of program to be given to graduates of this course. The Education Review Committee, which it appointed, regarded the idea of 2 years of prevocational work “patterned on the farming and industrial needs of the country” a sound one, and proposed that it should in due course become general in the public schools; but since the suitable equipment and specially trained staff that “continuation classes” would require were generally unavailable, it considered it premature to require all middle schools to give these classes and recommended instead that two “continuation schools” be started in each Region, one in a rural and one in an urban area, to serve as a pilot scheme. All middle schools lacking facilities for the continuation classes, it was proposed, should “offer the ordinary middle school subjects” in the 9th and 10th years with “as practical an orientation as possible.”<sup>6</sup> The Government in its White Paper on the Committee's report stated that pupils who do not go to secondary schools should attend for 2 years continuation classes or “middle school classes with as practical an emphasis as possible,” and declared its intention to “increase progressively the facilities for the continuation classes so that eventually all pupils who do not proceed to secondary or equivalent level

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<sup>6</sup> Republic of Ghana. *Report of the Education Review Committee Appointed by the National Liberation Council*. Accra-Tema: Ministry of Information, State Publishing Corporation, 1968. pp. 51, 52.

schools may be able to attend the continuation classes and be pre-disposed thereby to suitable occupations."<sup>7</sup> Both the Two-Year Development Plan published the same year (1968) and the One-Year Development Plan that followed it<sup>8</sup> called for increasing the number of continuation classes, and this general policy has remained in effect.

The number of middle schools having terminal continuation classes has increased very rapidly. According to the Ministry of Education, the number rose to 20 in 1969 and 123 in 1970-71<sup>9</sup> and by the middle of 1972, a year in which their popularity seemed to be surging along with that of the national program "Operation Feed Yourself," had reached a total of 187.<sup>10</sup> It was expected that their number would continue to increase.

At about the time the new 8-year program was first introduced in 1962-63, the Ministry took the first steps toward establishing a new type of primary school within the public elementary system. Evidently because of an intention to shorten the basic course of elementary education even further to 7 or 6 years and a desire to experiment with teaching in English from the first year, a few public primary schools were selected to become "experimental schools" offering on a pilot basis a 6-year English-medium course. They have since become an integral part of the system.

#### *Current Structure: 1972-73*

At present (1972-73) public primary and middle schools give four different programs. The basic course of elementary education taken by most children extends over 8 years (Primary Classes 1-8).<sup>11</sup> The first 6 classes are given in the primary schools and the 7th and 8th (Primary 7 or Middle Form I and Primary 8 or Middle Form II) in the middle schools. The expected or nominal age of entry is 6. The course covers subjects formerly taught in the 10 years of primary and middle education. A Ghanaian language serves as the initial medium of instruction. It is later replaced by English. Students in all schools take the Common Entrance Examination in their final year (Class 8). Students in selected middle schools may also take it in Class 7.

<sup>7</sup> Republic of Ghana. *White Paper on the Report of the Education Review Committee*. W.P. No. 9/68. Accra: Ministry of Information - State Publishing Corporation, 1968. pp. 2, 8.

<sup>8</sup> Republic of Ghana. *Two-Year Development Plan . . .* Accra-Tema: State Publishing Corporation, 1968. p. 83. and Republic of Ghana. *One-Year Development Plan July 1970 to June 1971*. Accra-Tema: Ghana Publishing Corporation, 1970. p. 168.

<sup>9</sup> The Editors. "Recent Developments in Ghana Education," *Ghana Journal of Education*. 2:4:16, October 1971.

<sup>10</sup> Information provided to the author by Ghana's Ministry of Education, July 1972.

<sup>11</sup> The consistent objective has been to make this basic course even shorter. The Seven Year Plan approved by the Nkrumah Government and scrapped after the 1966 coup provided for a 6-year course. *The Two-Year Development Plan* published in 1968 stated: "It is hoped as a long-term policy and as qualified teachers and improved material become more available, that this period of the basic course will be reduced to six years." Republic of Ghana. *Two-Year Development Plan . . .* loc. cit., p. 83. Proposals for restructuring the system that were under consideration in 1972-73 provided for shortening the course to 6 or 7 years.

Two different courses are offered to students who complete the 8-year elementary course without having been selected for secondary school. The first, offered in the great majority of middle schools, is the 2-year middle school course (Middle Forms III and IV), a course of general education consisting mainly of the subjects previously taught in the middle schools. Students in this course take the Middle School Leaving Certificate Examination at the end of their 10th year (Middle Form IV). They may also take the Common Entrance Examination in both the 9th year (Middle Form III) and 10th year (Middle Form IV). The course therefore continues to be a secondary preparatory program. It also serves as preparation for vocational courses and as a terminal program for the many not selected for secondary or other programs.

The second course following the 8-year elementary course is the continuation course (Continuation Classes 1 and 2), which is offered in a comparatively small number of middle schools. It consists of general education subjects and prevocational work of some type. Students may take the Middle School Leaving Certificate Examination at the end of their 10th year (Continuation Class 2). No students from this course had taken the Common Entrance Examination as of 1972. It seems clear that the course is in fact a terminal one that offers no opportunity for entry to a secondary level institution other than a teacher-training college. For this reason it is surprising to learn that neither school staff nor parents have offered objections to the continuation class work.

In addition to the large number of public primary and middle schools offering these three courses, there are about 20 public 6-year primary schools in Accra and other parts of the country (the schools known until 1971-72 as experimental schools) which give a 6-year course in which English is the sole medium of instruction from the first year. Pupils in these schools take the Common Entrance Examination in their sixth year. If not selected for secondary school entry, they can go on to a middle school to continue their education.

### Language Policy and Practice

Few aspects of education in Ghana can be more important than language policy and practice in the elementary school, few on which such differing views have been expressed, and few subject to such major changes in Government policy. It is one of the most obvious heritages of British colonial rule (and of a situation in which many languages are spoken and no single language is spoken by the majority of the people) that English is the official language of Ghana. It is the language of government, administration, commerce. As the elementary school English syllabus puts it, "Citizens with little or no knowledge of English are handicapped, sometimes severely." Many Ghanaians naturally place a very high value on competency in the language. English is also, of course, the language of all higher levels of the educational system. The child's progress through school

depends to a large extent on his ability to use the language, and parents naturally want their children to learn the language well. Most children, however, begin school having heard only their own and, in some cases, another Ghanaian language.

In this situation, the general policy and practice over the years has been to teach all of the great majority of Ghanaian children first in a Ghanaian language, which for some children has not been their mother tongue, and to introduce English as the language of instruction at a later stage while continuing the study of Ghanaian languages as subjects. Differences of view and policy have revolved around the level of education at which English should be introduced as the medium of instruction and the general place to be given to the Ghanaian language in Ghana's school. (It is not the importance of English or the importance of the earliest possible start in that language that has been in dispute.) Some have advocated English-medium instruction from the first year, but over the years many have expressed the view that young children learn best—are better able to acquire knowledge—and are more capable of expressing their views and participating in the classroom if taught in their own language. And some have insisted:

... the full expression of the cultural identity and dignity of the nation demands the development of the vernacular languages and their assured and respectable place in our educational system. If the Ghanaian, and for that matter the African, is to have roots in the way of life into which he is born and in which his earliest emotional and social experiences have their setting, he must be taught an appreciation of the culture of his people and his mother tongue in which that culture finds its fullest expression. Otherwise, our educational system will only succeed in producing men and women who are linguistically, and, therefore, culturally, "displaced persons."<sup>12</sup>

#### *Changes in Policy: 1951-72*

Government policy, influenced undoubtedly by broader political or philosophical considerations as well as by educational objectives, has shifted over the years. Set forth in one of the rules made under the Education Ordinance of 1925, the policy before self-government in 1951 was that in the Infant Classes (the first 3 years of schooling) "the Vernacular shall be the medium of instruction whenever the nature of the subject permits its use."<sup>13</sup> The reason, stated in another document, was "to ensure that the reception of knowledge is not delayed by an unfamiliarity with the language in which such knowledge is imparted."<sup>14</sup>

With the coming of internal self-government in 1951 and independence in 1957, English received much heavier emphasis than in the past. The

<sup>12</sup> I. K. Chinebauh, "The Education Review Report and the Study of Ghanaian Languages," *Ghana Journal of Education*, 1:2:22, January 1970.

<sup>13</sup> *Ibid.* p. 22.

<sup>14</sup> *Ibid.* p. 29.

*Accelerated Development Plan for Education, 1951*, set forth the following policy:

At the beginning of the course [the 6-year primary course] instruction will be given through the medium of the local vernacular, with English taught as a new language. As soon as possible there will be a transition from the vernacular to English as the medium of instruction, and the upper classes will receive all instruction through the medium of English, except that throughout the whole course the vernacular will be used for special study.<sup>15</sup>

As interpreted in the new language syllabus published in 1953, it was intended that in all subjects other than the languages themselves the vernacular was to be the medium of instruction in Classes 1 through 3, English was to be introduced as the medium in Class 4, and by Class 6 all lessons were to be given in English.<sup>16</sup> The policy was also interpreted at the time as meaning that more attention was to be paid to English in the primary school course than in the past. The plan itself noted: "This policy will require the posting of additional Certificate A teachers to primary schools, and their present shortage will lead to difficulty in carrying out the policy immediately."<sup>17</sup>

Evidently the policy was implemented in only a small proportion of the schools. A Government-appointed committee that in late 1955 and early 1956 studied the feasibility of using English as the medium throughout the primary stage found that of the total 1,652 schools it surveyed at that time only about 8 percent were using English in the fourth year or earlier, 6 percent in the fifth, and 9 percent in the sixth. More than 76 percent never used it as the medium.<sup>18</sup>

As its own report explains, this committee had been established as the result of a radical change in Government policy.

In the latter part of 1954 there was a move in Government circles to make English the medium of instruction in all Primary Schools from 1957, or even possibly from an earlier date.<sup>19</sup>

<sup>15</sup> Gold Coast. *Accelerated Development Plan for Education, 1951*. loc. cit. p. 1.

<sup>16</sup> Gold Coast. *Report on the Use of English (as the Medium of Instruction) in Gold Coast Schools*. Accra: Government Printer, 1956. p. 7.

<sup>17</sup> Gold Coast. *Accelerated Development Plan for Education, 1951*. loc. cit. p. 1.

<sup>18</sup> Gold Coast. *Report on the Use of English (as the Medium of Instruction) in Gold Coast Schools*. loc. cit. p. 27.

<sup>19</sup> *Ibid.* p. 7. The committee's report continues: "No reasons for this abrupt change of policy were given publicly, and since the proposal became known many imaginary (or perhaps real) causes have been ascribed to it" Later, returning to the matter, the report states (p. 8):

... the reasons behind this suggested radical change have been much open to conjecture. It has been said that this is an attempt to produce, or legislate for, a lingua franca. We have not been made privy to the reasons that prompted the Ministerial pronouncement. It appears, however, that there is a universal dissatisfaction with the low standard of achievement by pupils in general and by those in particular who seek admission to Secondary Schools, Training Colleges,



When the Government was urged to give some time to investigating the situation, the committee was appointed to carry out this task.

It concluded that the use of English from the first year was not feasible. It was convinced that "the lack of uniformity of teaching standards and ability is so marked, as is also the standard of English, that any attempt to implement such a recommendation could only lead to chaos in many schools."<sup>20</sup> Elsewhere in its report it stated:

Generally one of the factors . . . which militate against the use of English as the Medium, is the inability of the teachers to cope. In addition to all other qualities the teachers' own English must be adequate and we have no hesitation in declaring that from all that we have ourselves seen, heard, read and been told there is an inadequacy which makes the mere consideration of a wholesale, country-wide change-over nonsensical. This does not deny the fact that there are some schools where the staff is competent.

Furthermore, if the terms of the Accelerated Development Plan are to be implemented, then the English of many teachers is still inadequate to cope with English as a subject in the early stages and likewise with the later change to its complete use as the Medium in Primary V and VI.<sup>21</sup>

The committee recommended implementation of the intention of the Accelerated Development Plan. It proposed that the fourth year should be the period of transition from the vernacular to English as the medium, the period of gradual increase in the amount of English used, and that by the fifth year English should be the medium for all subjects except, perhaps, religious knowledge. It also suggested that existing experimental schools in which English was being used as the medium from the first year should be allowed to continue and that in special circumstances other schools should be allowed to experiment.<sup>22</sup>

The report of the committee was published in 1956. Toward the end of 1957, after independence, the Government nevertheless decided that beginning in 1958 the teaching of English should be intensified and that from January 1959 English should be used as the medium of instruction for all subjects from Class 2 upward.<sup>23</sup> How completely this policy was implemented is not clear.

While English received a new emphasis under Nkrumah, the Ghanaian languages received less. In 1952 the new African government abolished the

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University and other forms of post-primary education. As English is the basis of such education it has been suggested that greater proficiency in that subject would help to improve the general standards, and further, the earlier the proficiency the better.

<sup>20</sup> Ibid. p. 36.

<sup>21</sup> Ibid. p. 38.

<sup>22</sup> Ibid. p. 37.

<sup>23</sup> Ghana, Ministry of Education. *Education Report for the Year 1957*. Accra: Government Printer, 1960. p. 8. and Ghana, Ministry of Education. *Education Report For the Years 1958-1960*. Accra: Ministry of Information and Broadcasting, 1962. p. 25.

rule first promulgated in 1937-38 that required all teachers in training to take a School Certificate examination in one of the Ghanaian languages. Ghanaian languages continued to be taught as a subject in the elementary schools, but the time devoted to them was progressively reduced, particularly in the upper elementary school classes.

After the 1966 coup the Education Review Committee recommended—

. . . that a Ghanaian language be used as the medium of instruction for the first three years of the primary school course; the change to English as a medium of instruction should commence in the fourth year whilst the Ghanaian language continues to be studied as a subject; in the metropolitan and other urban areas where children are generally more exposed to spoken English than in rural areas, the change to English as a medium of instruction may commence earlier than the fourth year of the course.<sup>24</sup>

The Committee's reason for its recommendation, which was in fact a proposal that Ghana return to its earlier policy, was quite similar: ". . . children learn more easily in their mother tongue and are more readily able to express their ideas and reactions in that language."<sup>25</sup>

The government at the time (National Liberation Council) rejected the Committee's recommendation and reaffirmed the policy in effect since 1958:

. . . Government considers . . . that a Ghanaian language should be used in the first year, and that a gradual change to English as the medium of instruction should begin in the second year with practical subjects such as number work, handwork, physical education and games. More and more subjects should be progressively taught in the English medium. In the cosmopolitan areas, however, English may be used as the medium of instruction as early as the first year in school.<sup>26</sup>

When the policy established under the Nkrumah government (which emphasized early instruction in English and gave less stress than in the past to the Ghanaian languages), had been in effect for more than 10 years, a Research Fellow in Linguistics at the Institute of African Studies, University of Ghana, made the following assessment, probably sometime in 1969, of the standards of teaching English as a subject and using it as the medium of instruction in the elementary schools.

. . . the task of teaching L2 [the second language] to young children, let alone using it as the medium of instruction, is skilled work, which requires of the teacher a high level of knowledge of the L2 and methodology of L2 teaching. This is why the Hamburg Conference recommended: 'All teachers of L2 should have good command of the language and be a good model for pronunciation. They should also have knowledge of the pupils' L1 . . .'

<sup>24</sup> Republic of Ghana. *Report of the Education Review Committee* . . . loc. cit. p. 55.

<sup>25</sup> *Ibid.* p. 54.

<sup>26</sup> Republic of Ghana. *White Paper on the Report of the Education Review Committee*. loc. cit. p. 6.

A realistic appraisal of the available human resources in our educational situation would seem to indicate that our primary school teachers do not measure up to this high standard. Examiners have been appalled by the glaring inability of our final-year Teacher Training College (4-year) students to write continuous English prose which is free from major errors of spelling, grammar and punctuation. Visitors to our schools report of grotesque mistake (sic) inadvertently taught by the teachers and poor language lessons. And it is common knowledge that a large proportion of our primary school teachers are quite untrained. Such resources as are available are inadequate to the demands of using L2 as a medium of instruction. Indeed experience shows that in the presence of education officers an attempt, albeit inefficient, is made to give instruction in the L2 and that the moment the education officer's back is turned teachers change into the L1, in which they feel more at home.<sup>27</sup>

On the teaching of Ghanaian languages he made the following comments:

Experience shows . . . that in our elementary schools the inadequate number of periods ear-marked for vernacular teaching are usually used for instruction in other subjects and any vernacular lessons that are taught are generally inefficient.

Inefficient vernacular teaching . . . is due largely to two causes. The standard of proficiency of the teachers themselves is generally low. For . . . in 1952 the educational rule made in 1937-38 which required all students in training as teachers to sit for the School Certificate Ghana Languages Examinations was abolished with the result that students in our Training Colleges do not now receive any systematic instruction in the Ghana languages nor are they taught methods of teaching the mother tongue. They can hardly, therefore, be expected to extend to any appreciable extent their pupils' knowledge of the vernacular languages. The second factor which does not make for efficient teaching of the Ghana languages is the present indiscriminate system of posting teachers to schools in a locality whose language they do not speak.<sup>28</sup>

#### *Current Policy and Practice*

The Busia government reversed the decision of the National Liberation Council and introduced an entirely new policy which contrasts sharply with that in effect during the latter years of the Nkrumah period (1958-66) and the first years after the 1966 coup. This current official policy on mediums of instruction is that the main Ghanaian languages provided for in the elementary curriculums should be used as the medium of instruction throughout the first 3 years of elementary education, and, where the subject makes it possible, in the fourth through the sixth years as well. English is to be taught as a subject from the first year but is not to be used as a

<sup>27</sup> I. K. Chinebuah, op. cit. p. 32.

<sup>28</sup> Ibid. p. 34. Elsewhere in the same article the author states: "There is an acute shortage of qualified teachers of the Ghanaian languages in our secondary schools and Training Colleges, most of whom usually call upon specialist teachers in other subjects, particularly Physical Education, Music and Art and Crafts Specialists, to teach the Ghanaian languages in order to eke out their insufficient teaching periods." Ibid. p. 36.

medium of instruction until the fourth year. The Ministry of Education's syllabus for English, which "does not show the method of introducing English to the pupils" but gives minimum goals only for each class,<sup>29</sup> makes it clear that reading and writing in English, as well as speaking and listening, should begin in the first year. It indicates that by the end of Class 1 the pupil should not only be able to understand orally and speak simple sentence patterns but should be reading aloud words, phrases, and sentences (normally accompanied by illustrations), and should be able to copy simple words, including his own name, under his own drawings.<sup>30</sup> Reading and writing the second language are not delayed until the child is well along in learning to read and write his own language. In the upper elementary classes in which English is the medium of instruction the appropriate Ghanaian language is to be properly taught as a school subject.

The Ministry of Education's policy, as reflected in its suggested timetables for 1971-72, calls for spending a good deal more time on the Ghanaian languages and less on English than in 1964-65 and the years immediately following. The contrast is clear in the following tabulation which shows the number of minutes per week the Ministry of Education recommended be devoted to English and the Ghanaian language in each of the first 10 years of schooling in its 1964 timetables, which remained in use up through 1969, and its 1971-72 timetables.

Year	Ghanaian language		English	
	1964	1971-72	1964	1971-72
1	110	250	290	240
2	110	250	290	240
3	165	270	310	270
4	165	270	390	260
5	165	270	390	260
6	165	270	390	
7	90	220	410	240
8	60	210	450	250
9	30	220	470	240
10	30	210	480	250

In addition, inservice meetings are encouraging teachers to teach the Ghanaian languages.

It cannot be assumed that practice in all the primary schools follows the established current policy. While many schools probably do follow the policy, many others may not teach in the Ghanaian language throughout the first 3 years, but may teach in English from the second year or as soon as possible. Some teachers are assigned outside their own language areas and cannot teach in the local language of the children in their schools.

<sup>29</sup> Republic of Ghana, Ministry of Education. *Suggested Elementary School English Syllabus*. 1969. p. 1.

<sup>30</sup> *Ibid.* pp. 29, 35.

Others are probably inadequately prepared to teach in the local language. It seems to be a well-recognized fact in Ghana that the teaching of the Ghanaian languages as subjects in the elementary schools—to say nothing of teaching *in* these languages—has not been of high standard in recent years.

Most of the pupils' textbooks, moreover, are in English rather than the Ghanaian languages. The Ministry of Education's list of recommended texts for 1972-73, however, does include a number of pupils' textbooks written in the Ghanaian languages for teaching Ghanaian languages. Among these are at least one textbook for each of the 10 years of the 8-year elementary course and the 2-year middle school course for each of 6 languages—Akuapem Twi, Asanti Twi, Ewe, Fante, Ga, and Nzema—and one for each of the first 3 years of the elementary course for a seventh language—Dangme (Adangme). Some of the religious instruction books listed are also written in Ghanaian languages. All of the pupils' texts listed for all the subjects in the curriculum other than the Ghanaian languages and religious instruction are, however, written in English. In addition to the books on history, civics, and geography that the pupil uses from Class 4 through Middle Form IV and books in experimental science that he uses from Class 7 through Middle Form IV, these include the textbooks in English and mathematics and the music readers that are used from the very first primary class on.

It would seem that full implementation of current policy would require, as a necessary first step, improved teaching of the Ghanaian languages as subjects, greater emphasis on the Ghanaian languages in the teacher-training colleges, training and hiring of specialist teachers of Ghanaian languages for these colleges, assignment of none but teachers with an adequate knowledge of the local language to the lower primary grades, and preparation of additional teaching materials in the Ghanaian languages.

### Curriculum

The Ministry of Education establishes the elementary programs of study. The Curriculum and Courses Branch, which is part of the Curriculum Development and Research Unit of the Ministry of Education, has issued a subject syllabus for each of several subjects in each of three elementary programs—8-year elementary, middle (Middle Forms III and IV), and continuation (Continuation Classes 1 and 2). Those for the subjects in the 8-year elementary course and the continuation course are new syllabuses issued since introduction of these programs. Those for Middle Forms III and IV are the syllabuses published in 1960 and used in the middle schools before introduction of the 8-year elementary course.

The Branch also issues suggested timetables for the elementary, middle, and continuation courses. These include timetables both for schools that use the regular full-day system and for the smaller number of primary and

middle schools, all located in urban areas, that operate on the shift system in which two different groups of children use the same school facilities each day, one in the morning and the other in the afternoon. The Branch also issues annual lists of recommended textbooks and school materials for Classes 1-8 and Middle Forms III and IV.

### *The Three Courses*

Table 7 shows the subjects of the curriculum of the 8-year elementary school course, the 2-year middle school course, and the 2-year continuation course. It also shows the amount of time the Ministry of Education recommends be devoted to each of the subjects in each of the years of these courses.

The 8-year elementary school course and the 2-year middle school course—the courses taken by most children—consist of languages (Ghanaian and English), mathematics, elementary social studies, nature study or experimental science, health education, art, crafts or needlework, music, physical education, and religious instruction. Throughout the first 6 years more than half the time devoted to all subjects in the curriculum (full time less that for assembly, registration, and breaks) in schools not on a shift system is devoted to language and mathematics. In the 7th through 10th years more than 40 percent of the time is devoted to these subjects. Social studies takes less than 10 percent of the time throughout the 10 years and nature study or experimental science 4 percent in the first 3 years, 8 percent in the 4th through 6th years, and 12 percent in the 7th through 10th years (in schools not taking woodwork and/or home science). Other subjects receive about 30 percent of the time in the 1st through 6th years and a higher percentage in the 7th through 10th years.

The continuation course (Continuation Classes 1 and 2) consists of the same general education subjects as those taught in the middle school course *and* prevocational work of some type. About one-fifth of the time for all subjects (excluding the time for registration, breaks, and assembly) is devoted to prevocational work. Less time is given to physical education, religious instruction, and arts and crafts, and a little less to the languages; but more time to social studies and science than in the middle school course. The Ministry of Education's "Notes to Teachers" attached to its suggested timetable states that, depending on local arrangements, the prevocational work "may take the form of agriculture, fishing, animal husbandry including poultry keeping; crafts, such as cane work, leather work, woodwork, cloth weaving, carving, pottery, etc."<sup>31</sup> The Ministry has reported such prevocational activities as clothmaking in selected schools in Ashanti; sea-fishing in coastal schools in the Central and Western Regions; poultry keeping and the sale of birds and eggs to the public; making and selling

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<sup>31</sup> *Continuation Class Time-Table—Notes to Teachers. Processed.*

doormats, floormats, and steel chairs; breadmaking; hairdressing; tailoring; shoemaking; and automobile mechanics.<sup>32</sup>

### *Science*

As shown in table 7, students in all 10 years of elementary education now take either nature study or experimental science, and some middle school students in the 4 years, Primary Class 7 through Middle Form IV, take woodwork or home science. The introduction of science and elementary technical subjects is a comparatively recent development in Ghana's elementary schools. Until 1961 elementary school pupils were taught only nature study, hygiene, and gardening, and this was the closest they came to the study of science.

In 1961 the Government decided that science and technical subjects should be taught in the primary and middle schools—at first in Middle Forms III and IV and later in the lower grades. The Ministry appointed a science organizer, and, in 1961–62 and 1962–63, established eight centers called "Primary Technical Schools" at Accra, Cape Coast, Sekondi, Tarkwa, Obuasi, Kumasi, Koforidua, and Ho. Each of these centers, which are the responsibility of the Technical Education Division of the Ministry, provides instruction in woodwork, metalwork, brickwork, and technical drawing to pupils from several middle schools in the same vicinity. Some of these Primary Technical Schools (Accra, Cape Coast, Ho, Kumasi, and Sekondi) since 1965–66 have had science centers to serve the middle school students. In addition, science rooms or science laboratories have been set up in many primary and middle schools, and the teaching of elementary science introduced into many individual primary and middle schools. A science unit in the Ministry of Education has been devoted entirely to developing science teaching in the elementary and secondary institutions. As of 1971 it was reported that 854 middle schools and 322 primary schools were involved in the elementary science scheme and that 1,673 middle school teachers and 453 primary school teachers had been briefed on the program.<sup>33</sup>

The Curriculum Development and Research Unit of the Ministry of Education has developed texts and materials for primary science.<sup>34</sup> The guides for elementary science teachers which the Ministry recommends for Classes 1–8 are materials prepared in Africa—principally at a series of summer workshops—as part of the African Primary Science Program. This program is assisted by the Education Development Center (Newton, Mas-

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<sup>32</sup> The Editors. "Recent Developments in Ghana Education." loc. cit. pp. 16–17. UNICEF has assisted in developing the continuation classes by providing equipment and tools for agricultural programs, including poultry raising, and also buses used for organizing courses and running programs. Ibid. p. 16.

<sup>33</sup> The Editors. "Recent Developments in Ghana Education." loc. cit. p. 14.

<sup>34</sup> Ibid. p. 13.

Table 7.—Number of minutes, per week, per subject in Primary Classes 1-6 in schools using the regular system and in schools using the shift system; in Classes 7 and 8 and Middle Forms 3 and 4 in middle schools taking and not taking woodwork and/or home science; all in continuation classes 1 and 2, as shown in the Ministry of Education's suggested timetables: 1971-72

Subject or period	Classes 1-2		Class 3		Classes 4-6		Classes 7-8 and Middle Forms 3-4			Continuation Classes 1 and 2
	Regular	Shift	Regular	Shift	Regular	Shift	Not taking woodwork/ home science	Taking woodwork/ home science	Continuation	
	2	3	4	5	6	7	8	9	10	
<b>Total</b>	1,600	1,300	1,600	1,300	1,600	1,300	1,600	1,900	1,925	
<b>Languages</b>										
Total	490	410	540	470	530	420	460	450	420	
English	240	200	270	200	260	220	240	240	270	
Ghanaian language	250	210	270	210	270	200	220	210	150	
<b>Mathematics</b>										
Mathematics	260	260	260	260	210	210	240	240	190	
<b>Social Studies</b>										
Total	120	90	120	90	100	90	150	150	180	
Centres of interest <sup>a</sup>	120	90	120	90	.....	.....	.....	.....	.....	
Geography	.....	.....	.....	.....	40	30	150	150	60	
History and civics	.....	.....	.....	.....	60	60	.....	.....	120	
<b>Science</b>										
Total	60	60	60	60	140	100	270	140	150	





Nature study and health education (or experimental science)	60	60	60	60					
Nature study and gardening and/or experimental science					40	70	100	130	150
Health education									
<b>Other Subjects</b>									
Total	420	300			70	100	130	150	150
Art	140	110		80					50
Crafts/needlework									
Woodwork/other building									
Prevocational work									
Music	60	60		60					60
Physical education and games	130	90		130					190
Religious instruction	90	90		90					120
<b>Other periods</b>									
Total	250	150		250				250	375
Assembly	50	50		50				50	50
Registration	50	25		50				50	100
Breaks (playtime)	150	75		150				150	275

1 This figure is for Class 7 and Form 3. The figure for Class 8 and Form 4 is 250.  
 2 This figure is for Class 7 and Form 3. The figure for Class 8 and Form 4 is 210.  
 3 Informal teaching of history, civics or citizenship, geography, and, sometimes hygiene and nature study, through discussion of or activities related to a series of topics based on central themes, such as "Our School and Other Buildings," "Our Food and Our Clothes," and "People Who Help Us."  
 4 Nature study and gardening or, in some schools, experimental science.  
 5 Experimental science, 70; gardening, 30.  
 6 General science.

7 No time is shown on the timetable itself, but the ministry's analysis of the timetable shows 30 minutes for health education.

Sources: Suggested Eight-Year Elementary School Timetable for Classes 1-3 1971/72, Suggested Elementary School Timetable for Classes 1-3, Using a Shift System—1971/72, Suggested Eight-Year Elementary School Timetable for Classes 4-6 1971/72, Suggested Elementary School Timetable for Classes 4-6, Using a Shift System 1971/72, Suggested Eight-Year School Timetable for Classes 7 & 8 1971/72, Suggested Timetable for Middle Forms 3 & 4 1971/72, Time-Table Contribution Classes 1 & 2. No date. (All sources processed.)

sachusetts), operating under a contract with the U.S. Agency for International Development, and involving seven elementary science units in Africa, including the science unit of Ghana's Ministry of Education.

### Middle School Leaving Certificate Examination

Students who complete their 10th year of elementary education (Middle Form IV or Continuation Class 2) without having been selected for entry to a secondary school take the Middle School Leaving Certificate Examination, just as 10th year students have for many years.<sup>35</sup> Held in August each year, this examination is conducted by the West African Examinations Council on behalf of the Ministry of Education. The Ministry lays down the syllabus on which the examination is based, determines the standards, and awards the Middle School Leaving Certificate to successful candidates. The examination consists of papers in arithmetic (60 minutes), English (45), history (45), geography (45), and home science (45), all of which consist of multiple choice objective questions; an English composition paper (60); and a practical home science test. A majority of the candidates pass the examination. In each year from 1961 through 1969, from 72 to 76 percent of the candidates were awarded the certificate.

It is undoubtedly not this examination but rather the Common Entrance Examination for admission to secondary schools (discussed in the next chapter) that most strongly influences elementary school teaching.

### Teachers

One of the prices paid for the rapid expansion of elementary education was (to use the term of official Ghanaian education reports) the "dilution" of the elementary school staff by untrained "pupil" teachers, most of them middle school leavers. To carry out its programs of expansion, the former (Nkrumah) regime employed large numbers of these pupil teachers. For a time it also conducted a crash program to train large numbers of Certificate B teachers, who received only 2 years of teacher training after completing middle school, for employment in the primary (not middle) schools along with Certificate A teachers who received 4 years of training after completing middle school.

With the initiation of the Accelerated Development Plan for Education in 1952, the proportion of trained teachers in public primary and middle schools dropped from more than 52 percent in 1951 to 28 percent in 1952. (See table 8.) During the 1950's the percentage of trained teachers inched

<sup>35</sup> The examination, originally conducted by the Department of Education of the Gold Coast, has been held every year since the 1940's except 1951-54.

upward as the training colleges turned out larger numbers of them, and in 1959, for the first time since 1951, trained teachers, many of whom were Certificate B teachers,<sup>26</sup> once again outnumbered the untrained ones in the public elementary (primary and middle) system as a whole. But in the primary schools alone, where the percentage of trained teachers had consistently been smaller than in the middle schools, only 43 percent of all teachers were trained, and about 71 percent of these trained teachers were Certificate B teachers. The position in the public elementary school system as a whole continued to improve until school year 1960-62. "Then, in spite of an unprecedented increase in the number of seminar-trained teachers, due both to training college expansion and to the more attractive conditions of service introduced in 1960, the balance began to swing back with the coming of compulsory education."<sup>27</sup>

The proportion of trained teachers fell to 35.5 percent in 1965-66 and 35.0 percent in 1966-67. In the primary schools alone the proportion was only 27 percent in 1966-67, and although the training of Certificate B teachers had been stopped several years earlier, there were probably still, among the 10,540 trained primary school teachers, about 6,000 Certificate B teachers.

The general policy in more recent years has been to replace as soon as possible untrained pupil teachers with trained teachers—Certificate A teachers who have completed 4 years of post-middle school teacher training and "Certificate A Post Secondary" teachers who have completed 2 years of training at post-School Certificate level. The policy has also been to increase the numbers and proportion of Certificate A Post Secondary teachers. Also in recent years a more stringent rule has applied to pupil teachers: they are now allowed to work only 3 years (instead of 5). If they do not gain admission to a teacher-training college in 3 years, they are no longer employed.

In the late 1960's and early 1970's—a period of declining or slowly rising primary school enrollments and a reduction in the elementary school staff—the situation has improved dramatically, as the data in tables 8 and 9 reveal. By 1971-72 the number of untrained pupil teachers employed in primary and middle schools had been more than halved since 1965-66, as more trained teachers came into the schools. The proportion of trained teachers in these schools increased from 35 percent in 1966-67 to 70.5 percent in 1971-72—and was expected to rise to 90 percent by 1976. During the same period, the percentage of Certificate A 4-year teachers had increased to 47.6 percent and the number and percentage of Certificate A Post

<sup>26</sup> In 1959 Certificate A teachers numbered about 5,400 and Certificate B teachers about 4,600. The ratio of Certificate A to Certificate B teachers had dropped significantly after 1952, a year in which the former had outnumbered the latter more than 2 to 1.

<sup>27</sup> Ghana, Ministry of Education, *Education Report 1960-62*. Accra: Ministry of Information and Broadcasting, 1963, p. 22.

Table 8.—Number of trained and untrained teachers in the public primary and middle schools and percent of each to the total: School years 1951-1971-72

School year	Total number of teachers	Trained teachers		Untrained teachers	
		Number	Percent	Number	Percent
	2	3	4	5	6
1951	7,200	70	52.4	3,430	47.6
1952	15,145	293	28.3	10,852	71.7
1953	15,952	592	29.4	11,260	70.6
1954	15,809	1,288	33.4	10,521	66.6
1955	16,551	1,192	37.4	10,359	62.6
1956	17,623	7,247	41.1	10,376	58.9
1957	18,492	3,164	43.1	10,328	55.9
1958	18,733	3,028	48.2	9,705	51.8
1959	19,402	10,003	51.6	9,401	48.4
1960	20,209	10,648	52.7	9,561	47.3
1960-61	20,963	11,160	53.2	9,803	46.8
1961-62	25,123	13,240	52.7	11,883	47.3
1962-63	31,653	14,171	44.8	17,488	55.2
1963-64	33,416	13,689	41.0	19,727	59.0
1964-65	40,234	14,973	37.2	25,261	62.8
1965-66	50,950	18,057	35.5	32,863	64.5
1966-67	48,510	15,976	35.0	31,534	65.0
1967-68	48,613	19,544	40.2	29,069	59.8
1968-69	47,877	22,502	47.0	25,375	53.0
1969-70	47,058	27,399	58.2	19,659	41.8
1970-71	46,960	30,350	64.6	16,610	35.4
1971-72	48,107	33,902	70.5	14,205	29.5

Sources: Gold Coast. Report on the Education Department for the Year 1951. Accra: Government Printing Department, 1953. p. 35. Gold Coast Government. Annual Report of the Education Department for the Year 1952. Accra: Government Printing Department, 1954. p. 44. Gold Coast Government. Annual Report of the Education Department for the Year 1953-54. Accra: Government Printer, 1956. p. 49. Gold Coast Government. Annual Report of the Education Department for the Year 1954-55. Accra: Government Printer, 1956. p. 38. Republic of Ghana. Central Bureau of Statistics. 1962 Statistical Year Book. Accra: Government Printing Department, 1964. p. 175. Ghana, Ministry of Education. Education Report 1960-62. Accra: 1963. p. 23. Ghana, Central Bureau of Statistics. 1964 Statistical Year Book. Accra: 1967. p. 191. Republic of Ghana, Central Bureau of Statistics. 1965-66 Statistical Year Book. Accra: Ministry of Information, 1969. p. 204. Ghana, Ministry of Education. Education Statistics 1967/68. Processed. Republic of Ghana, Ministry of Education. Educational Statistics 1968-69. Accra: 1971. pp. 20, 21, 42-45. Ghana, Ministry of Education. Education Statistics 1969/70. Processed. Ghana, Ministry of Education. Education Statistics 1970/71. Processed. Ghana, Ministry of Education. Digest of Educational Statistics: 1971/72. Processed.

Secondary teachers had more than tripled. In the primary schools alone, the percentage of trained teachers increased from 27.1 to 63.8. Moreover, in 1972 the proportion of trained primary school teachers who were Certificate B teachers was only about 18 percent (3,704 of 21,010). It was probably about 57 percent in 1966-67.

As of 1971-72, 70.5 percent of all primary and middle school teachers were trained. Most of them had received their certificates and were categorized as "qualified." A minority were not yet "certificated" and were

categorized as "unqualified." The remaining 29.5 percent were untrained teachers—also, of course, in the "unqualified" category. Most were middle school rather than secondary school leavers. A majority of the trained primary and middle school teachers were Certificate A teachers who had completed 4 years of teacher training after completing middle school. They made up 47.6 percent of the elementary school staff. Another 7 percent were Certificate A Post Secondary teachers who had completed 2 years of training at post-School Certificate level. Although the training of Certificate B teachers, who received 2 years of training at post-middle school level, was discontinued in the early 1970s, a considerable number of them were still employed—almost entirely in the primary (rather than middle) schools—and constituted almost 6 percent of the total elementary school teaching staff.

At the primary school level, a smaller percentage—about 64 percent—of the teachers were trained and only one-fifth of the trained teachers held a Certificate B. The primary schools remained rather heavily dependent upon the untrained teachers, who made up more than 36 percent of the teaching staff. The great majority of these teachers were middle school leavers. They still played an important role in the very first cycle of education in which the Ghanaian child is introduced not only to the three R's but to his second language as well.

Table 9.—Number and percent of public primary and middle school teachers, by qualification: School years 1966-67, 1968-69, 1970-71 and 1971-72

[... means that source gave no figure.]

Qualification	1966-67		1968-69		1970-71		1971-72	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9
Primary and Middle								
Total	48,510	100.0	47,877	100.0	46,960	100.0	48,107	100.0
Trained	16,976	35.0	22,502	47.0	30,350	64.6	33,902	70.5
Senior teacher			2,341	4.9	3,477	8.4	3,797	7.9
Certificate A Post Secondary			1,103	2.3	2,858	6.1	3,373	7.0
Certificate A (4-year or more)			14,145	29.5	19,292	41.1	22,909	47.6
Certificate B			4,710	9.8	4,120	8.8	3,739	7.8
Other			203	.4	150	.3	84	.2
Untrained	31,534	65.0	25,375	53.0	16,610	35.4	14,205	29.5
School Leaving Certificate of U.S. A-Level			2,872	6.0	3,664	7.8	2,937	6.1
Middle School Leaving Certificate			22,185	46.3	12,946	27.6	11,268	23.4
Other			318	.7				
Primary								
Total	38,897	100.0	36,317	100.0	32,828	100.0	32,943	100.0
Trained	10,540	27.1	14,122	38.9	19,094	58.2	21,010	63.8
Senior teacher			1,390	3.8	2,270	6.9	2,102	6.4
Certificate A Post Secondary			364	1.0	973	3.0	1,264	3.8
Certificate A (4-year or more) (B)			7,719	21.3	11,639	35.5	13,881	42.1

Certificate B .....	4,492	12.4	4,104	12.5	3,704	11.2
Other .....	157	.4	108	.3	59	.2
<b>Untrained</b> .....	<b>28,357</b>	<b>72.9</b>	<b>13,734</b>	<b>41.8</b>	<b>11,933</b>	<b>36.2</b>
School Certificate or G.C.E. A-Level .....	886	2.4	1,815	5.5	1,686	5.1
Middle School Leaving Certificate .....	21,329	58.7	11,919	36.3	10,247	31.1
<b>Middle</b> .....						
<b>Total</b> .....	<b>9,613</b>	<b>100.0</b>	<b>14,132</b>	<b>100.0</b>	<b>15,164</b>	<b>100.0</b>
<b>Trained</b> .....	<b>6,436</b>	<b>67.0</b>	<b>11,256</b>	<b>79.7</b>	<b>12,892</b>	<b>85.0</b>
Senior teacher .....	951	8.2	1,660	11.7	1,695	11.2
Certificate A Post Secondary .....	739	6.4	1,885	13.3	2,109	13.9
Certificate A (4-year or post-6) .....	6,426	55.6	7,653	54.2	9,028	59.5
Certificate B .....	218	1.9	16	.1	35	.2
Other .....	46	.4	42	.3	25	.2
<b>Untrained</b> .....	<b>3,177</b>	<b>33.0</b>	<b>2,876</b>	<b>20.4</b>	<b>2,272</b>	<b>15.0</b>
School Certificate or G.C.E. A-Level .....	2,006	17.4	1,849	13.1	1,251	8.3
Middle School Leaving Certificate .....	856	7.4	1,027	7.3	1,021	6.7
Other .....	318	2.8	.....	.....	.....	.....

<sup>1</sup> Includes 16 holding a U.K. training certificate.  
<sup>2</sup> Includes 8 holding a U.K. training certificate.  
 Note: Because of rounding, percentages may not add to totals.

Sources: Ghana, Ministry of Education. Education Statistics 1967/68. Processed. Republic of Ghana, Ministry of Education. Educational Statistics 1968-69. Accra: 1971. pp. 20, 21, 42-45. Ghana, Ministry of Education. Education Statistics 1970/71. Processed. Ghana, Ministry of Education. Digest of Educational Statistics—1971/72. Processed.

### III. GENERAL SECONDARY EDUCATION

#### The Common Entrance Examination

At three points of the pre-university general education structure—two within and one at the end—a minority of potential candidates is selected to proceed to the next cycle of general education. None of the selection instruments is more important than the examination for the selection of students to enter secondary schools.

This examination, the Common Entrance Examination (C.E.E.), administered by the West African Examination Council on behalf of the Ministry of Education, is in a sense at the heart of the pre-university system. Students are selected for all secondary schools largely on the basis of their performance in this examination. (Interviews are also required at some schools.) A student's opportunity to go on through the secondary structure and prepare for middle- and high-level occupations depends almost entirely on his performance in this single examination. Because of its great importance to the student and his or her parents, it would be surprising if teachers at the elementary school level did not concentrate excessively on preparing students for the C.E.E.

Pupils in Primary 8 (Middle Form II), Middle Form III, and Middle Form IV seeking admission to secondary schools may take the examination. (No student from Continuation Class 2 had entered for it as of 1972.) The Education Review Committee had recommended that Middle Form IV (10th year) students no longer be allowed to take the examination. But the recommendation, which had been accepted by the Government White Paper on the committee's report, was not implemented, in order to allow late developers in Middle Form IV the opportunity to gain admission to a secondary school. A special provision does, however, apply to Middle Form IV students: to gain admission to a secondary school they must obtain a higher mark on the examination than other students. In addition to Middle Form II, III, and IV students, students in Primary 7 (Middle Form I) of certain middle schools selected with the approval of the Ministry of Education<sup>1</sup> and pupils in the next year of the 6-year English-

<sup>1</sup> For both the 1965 and 1966 Common Entrance Examinations the middle schools were selected on the basis of their performance in the previous year's Common Entrance Examination. For the 1967 and 1968 examinations they were selected on the basis of their performance in the Middle School Leaving Certificate Examination 2 years earlier (in 1965 and 1966, respectively). The basis for the selection of schools for the 1969 and 1970 examinations is not indicated in the reports of the West African Examinations Council for these years.



medium primary schools (both the private fee-paying and the public schools of this type) may also take examination.

Selection of secondary school entrants from among Middle Form II, III, and IV students by means of an entrance or other examination is a very old characteristic of Ghana's system: the selection of sixth- and seventh-year students is a comparatively new development. Primary 7 (Middle Form I) students in selected schools have been allowed to take the C.E.E. since 1965 and Primary 6 students in the English-medium schools since about 1967.

The same Common Entrance Examination is used to select students for entry to the technical institutions. Students seeking admission to technical institutes must take the examination in Middle Form IV.<sup>2</sup>

The Common Entrance Examination consists of an objective test in English, an objective test in mathematics, an English composition paper, and verbal and quantitative aptitude tests.<sup>3</sup> The entire examination is in English and every part of it thus measures, directly or indirectly, competence in English.

The aptitude tests were first introduced in 1964 on an experimental basis. The results in these tests were not included in the individual's aggregate score until 1970. In other words, until that time the student's final mark in the Common Entrance Examination was based solely on achievement tests in English and arithmetic (which were given equal weight in computing the overall grade). When first taken into account in computing the overall score, the aptitude tests were allotted 100 of the total possible 300 points in the complete examination. A decision was made to weight them more heavily and in 1972 and 1973 they were allotted 200 of the total 400 points, as indicated below.<sup>4</sup>

<sup>2</sup> The present system in which the C.E.E. has been used for selecting students from several classes for all secondary schools and for selecting students for the technical institutes has been operating only since 1963. Previously, except possibly for the period 1955-1958, the C.E.E. was used for selecting students for entry to some of the secondary schools—the pre-1951 institutions—and one or more other instruments were used for selecting students for entry to other secondary schools and the technical institutions. Originally, before 1951, the C.E.E. was used for selecting students from the 8th through the 10th years for entry to the assisted schools. By 1953 and 1954, after self-government, the C.E.E., then taken only by students in the 8th and 9th years, continued to serve as the selection instrument for pre-1951 institutions. A second examination was used for selecting pupils for the schools brought into the system in or after 1952 (the day and encouraged schools), and a third examination was used for selection of students for technical courses. Between 1955 and 1958 the same examination was used for the three separate entrance competitions, and it was taken by pupils in the 8th, 9th, and 10th years. From 1959 through 1962 the C.E.E. was used only for selecting Middle Form II and Form III students for secondary schools. A part of the Middle School Leaving Certificate examination was used for selection of pupils from Middle Form IV for entry to the technical institutes (then the junior technical institutes) and to secondary schools whose entrants did not come from Forms II and III.

<sup>3</sup> A new "social studies" paper that was an objective test in geography, elementary general science, and history and civics was also given in 1972, but the results in this paper were not included in the aggregate mark, and the paper was not to be offered in subsequent years.

<sup>4</sup> Information provided to the author by the Ghana Office of the West African Examinations Council, July 1972.

	<i>Before 1972</i>	<i>1972 and 1973</i>
<i>Total points</i> -----	300	400
Objective English -----	60	80
English composition -----	40	40
Objective arithmetic -----	100	80
Aptitude -----	100	---
Verbal -----	---	100
Quantitative -----	---	100

The plan, as of 1972, was to weight the results in the aptitude tests even more heavily in subsequent years.

Apparently the value of the former pre-1970 examination, which was largely an achievement test and a test of competence in English, was increasingly questioned as a means of selecting the students most capable of benefiting from secondary education. A high percentage of the students so carefully selected for secondary school admission through the C.E.E. have not performed well in the Ordinary-Level examinations at the end of the basic secondary school course. (Details appear in part V.) Moreover, research by the West African Examinations Council showed that the correlation between 1962 C.E.E. marks and 1967 Ordinary-Level examination grades was not high.

There is also evidence suggesting that students from a high socioeconomic background, including students who have attended well-staffed, English-medium private schools where they have been drilled for the examination, have had an advantage over other students. The percentage of applicants from private primary schools gaining admission to secondary schools has been much higher than the national average, and although one study has shown that secondary students from private primary schools have performed slightly better on Ordinary-Level examinations than those from public schools, it has not been shown that the former are inherently more intelligent than the latter. Students whose fathers hold professional, administrative, and other white collar positions have been overrepresented in the secondary school population, but in many secondary schools they have not performed as well on the Ordinary-Level examination as students from other backgrounds, a fact suggesting that some of the former, because of background factors, have been able to perform well on the C.E.E. and get into the secondary system although they have been incapable of performing well in the basic secondary school course.<sup>5</sup>

Whatever factors motivated it, the plan to change the nature of the C.E.E. must be viewed as a major development intended to draw into the secondary structure pupils of the greatest potential.

<sup>5</sup> David A. Shiman. "Selection for Secondary Schools in Ghana: The Problem of Choosing the Most Capable," *West African Journal of Education*, XV:3:173-77, October 1971.

## The Secondary Schools

As of 1971-72, the system of general secondary education schools consisted of 139 public schools enrolling 56,801 students and about 124 private fee-charging schools. Over the years since 1951 a number of formerly private secondary schools have come into the public system, but private schools have continued to open—unquestionably responding to a demand for general secondary education that has not been satisfied by the public educational system. These private schools apparently offer an academic program similar to the one given in the public schools to prepare their students for the same Ordinary-Level examination, but, generally speaking, their standards are lower than those of the public schools and their students do not perform as well on the examination as public school students. The following pages pertain to the public secondary schools.

There were, as previously indicated, 139 of these public secondary schools in 1971-72. Four of them were secondary technical schools, which differ from the others only in the fact that their program emphasizes science and mathematics and includes handicraft (metalwork, woodwork, technical drawing) subjects. Most of the secondary schools, other than the secondary technical schools that bear this title, are called secondary schools (these words appear in the name of the school), but a few are called college, high school, academy, or grammar school instead.

Most of the secondary schools enroll between 300 and 700 students. About 10 enroll 700 or more. Of those enrolling less than 300, most are new institutions not yet offering the complete basic secondary school course. The majority are coeducational institutions. As of 1970-71, for example, 84 were coeducational, 27 boys schools, and 14 girls schools. Of the secondary schools about 50 are classified as boarding schools (some of these have some day students), about 40 as day and boarding schools, more than 20 as day-schools with hostel facilities, and fewer than 10 as purely day schools. Of the nearly 57,000 pupils enrolled in 1971-72, almost 42,000 were boarding pupils and more than 4,000 day pupils living in hostels. Fewer than 11,000 were day pupils.

All the secondary schools offer the same basic course leading to the same Ordinary-Level examination (described below), and, as the author of a recent article states, "in so far as all the pupils . . . sit the same examinations, it can be said that the schools offer equality of opportunity. It cannot, however, be denied that within the secondary school system there is a certain hierarchy of merit, and given a free choice parents and pupils would opt for certain secondary schools to the neglect of others."<sup>6</sup> They may

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<sup>6</sup> W. F. Barrett. "A Comparison of Ghanaian Secondary Schools on the Basis of the Ordinary Level Results for the Years 1966, 1967 and 1968." *Ghana Journal of Education*, 1:2:6, January 1970.

prefer a school because it is long established, because of the family's ties with it, or because of its record of academic performance.

Twelve of the public secondary schools trace their histories back to the period before self-government in 1951, and a number of them, perhaps for this and other reasons, seem to be regarded as among the institutions of highest prestige. These schools are the following:

Aburi Girls' Secondary School  
Accra Academy  
Achimota  
Adisadel College  
Holy Child College  
Mawuli Secondary School  
Mfantshipim School  
Prempeh College  
St. Augustine's College  
St. Monica's College  
Gbewaa Secondary School (until 1971-72 Government Secondary School, Tamale)  
Wesley Girls' High School

Another group of 13 schools are institutions that were brought into the public system when the Accelerated Development Plan was launched in 1952. All the rest—the overwhelming majority—have been established or brought into the public system since that date, many of them in the 1960's.

The article referred to earlier compares the secondary schools from the viewpoint of the success of their students in the Ordinary-Level examination over a 3-year period, 1966 through 1968, and reveals the great variations within the public system. In each of the 3 years more than half of the students in each of several secondary schools passed 5 or more subjects at Ordinary-Level while less than 10 percent of the students in each of a number of other schools did so. In each of the years some schools had absolutely no students who failed to pass even one subject at Ordinary Level while in some other schools more than half of the students failed to do this.

The article lists the 20 secondary schools with the highest percentage of students obtaining 5 or more Ordinary-Level passes in each of the 3 years from 1966 through 68 and also the 20 secondary schools with the lowest percentage of students obtaining no Ordinary-Level passes (failing completely) in each of these 3 years—in other words the schools of highest academic performance.<sup>7</sup> All schools that fall within either category for 2 or 3 of the years are listed below in alphabetical order, with an X indicating the category or categories into which each school fell.

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<sup>7</sup> It also lists the 20 schools having the lowest percentage of students obtaining 5 or more Ordinary-Level passes in each of the years 1966, 1967, and 1968 and the 20 schools having the highest percentage of candidates with no Ordinary-Level passes in each of these years.

School	Among 20 schools with highest percentage of candidates obtaining 5 or more "O-Level" passes in--		Among 20 schools with lowest percentage of candidates with no "O-Level" passes in--	
	1966, 1967, and 1968	2 of the years	1966, 1967, and 1968	2 of the years
Aburi Girls' Secondary School				X
Accra Academy		X		
Achimota Secondary School		X	X	
Adisadel College	X			X
Asankrangwa Secondary School				X
Bishop Herman	X		X	
Ghanata Secondary School		X		X
Government Secondary Technical School, Takoradi	X			
Manya Krobo Secondary School	X			X
Mawuli Secondary School	X			X
Mfantsipim School	X			X
Opoku Ware Secondary School	X		X	
Pope John Secondary School				X
Prempeh College	X			X
Seventh Day Adventist Secondary School, Bekwai				X
St. Augustine's College		X		
St. Francis Girls Secondary School			X	
St. John's College				X
St. Mary's Secondary School			X	
St. Peter's	X		X	
Tweneboa Kodua Secondary School		X		
Wesley Girls' High School		X		
Wenneba Secondary School		X		

Nine of these schools are pre-1951 institutions and two of them (Ghanata and Opoku Ware) date from 1952. In all but five the proportion of graduates on the staff (as of 1970-71) was higher than the national average (55 percent), and in the following 12 the proportion exceeded 65 percent: Aburi Girls', Accra Academy, Achimota, Adisadel, Bishop Herman, Mfantsipim, Opoku Ware, Prempeh, St. Augustine's, St. John's, St. Peter's, Wesley Girls'.

### Examinations and Program of Study

In Ghana, as in a number of African countries whose systems are modeled on the British system, the full secondary school program has consisted for many years of two cycles: a basic secondary course which has been 5 years in length (Forms I-V), except for the brief period before the 1966 coup when it was reduced to 4 years, and the further 2-year course known as the Sixth Form—a concentrated program in a few subjects that

may prepare the student for university admission. All secondary schools have offered all or part of the basic course; but only some of them (40 of the total 139 in 1971-72) have offered the Sixth Form.

Both courses have led to external examinations, i.e., examinations administered by an external (outside the school) examining body. The basic course has led to examinations at Ordinary-Level and the Sixth Form to examinations at Advanced-Level. Each of these end-of-course examinations has played a crucial role in the individual student's academic progress, because advancement to the next cycle of the system has depended entirely on his performance in the single final examination. And these external examinations and the regulations and syllabuses upon which they are based have largely determined the programs of study in the secondary schools. Formerly both the Ordinary- and Advanced-Level examinations were administered by an examinations body in the United Kingdom. The West African Examinations Council, established in 1952, assumed full responsibility for the Ordinary-Level examination in 1960. Later in the decade it began to take over responsibility for the Advanced-Level examinations, and by 1972 was conducting the Advanced-Level examinations in most subjects. The revision of syllabuses for individual subjects to bring them more closely into line with African needs has been going on over a period of years, both before and after the transfer of responsibility for conducting the examination from examining bodies in the United Kingdom to the West African Examinations Council.

#### *The Basic Course*

*The external examination.*— The basic 5-year secondary school course has always led to an external examination at "Ordinary-Level" administered by an external examinations body and has largely been determined by the regulations and the subject syllabuses issued by the examinations body for the examination. Over the years, Ghanaian students completing the course have taken various Ordinary-Level examinations in order to earn either a School Certificate, which requires examinations in a number of subjects selected from certain groups of subjects and adequate overall performance in a range of subjects, or a General Certificate of Education (G.C.E.), which can be awarded on the basis of adequate performance in a single subject.

Students completing the basic secondary school course originally took the examination for the Cambridge Overseas School Certificate administered by the University of Cambridge Local Examinations Syndicate (in the United Kingdom) and held in December each year. Later, after establishment of the West African Examinations Council in 1952, they took the examination for the West African School Certificate, which was held at the end of November each year and conducted by the Cambridge Local Examinations Syndicate in collaboration with the Council.

By 1960 the West African Examinations Council was able to assume complete responsibility for the Ordinary-Level examination, and in that year it conducted on its own the first examination for the new School Certificate—"The School Certificate of the West African Examinations Council." Held in June each year, the new examination was introduced to permit a changeover to a school year ending in June which would coincide with that of university institutions and to allow the local West African Council, which would have full responsibility for the scheme of the examination and subject syllabuses, to provide the most suitable examination for schools in Ghana and Sierra Leone.<sup>8</sup> The regulations for the examination and the syllabuses in individual subjects were initially those of the West African School Certificate that had been replaced.

In 1963 the name of the examination was changed to Joint Examination for the School Certificate and General Certificate of Education of the West African Examinations Council. Students taking the examination who failed to qualify for the award of the School Certificate but obtained the mark of "Credit" or better in at least one subject received the General Certificate of Education of the West African Examinations Council. Also in 1963 English language ceased to be a compulsory examination subject for Ghanaian candidates. Previously a number of candidates who had obtained 3, 4, or 5 credits had failed to gain a certificate and were unable to proceed with their schooling solely because of a failure in English.

In 1965 there was a more radical change. The examination for the School Certificate was replaced by the Council's examination for the General Certificate of Education Ordinary-Level. A candidate could enter in any combination of subjects he wished without any restrictions as to minimum number of subjects or subject grouping, and was awarded the General Certificate of Education (G.C.E.) of the West African Examinations Council if he obtained grade 6 or higher (a G.C.E. Ordinary-Level pass) in one or more subjects. This G.C.E. examination continued to be taken through 1969.

In 1970 the Joint Examination for the School Certificate and the General Certificate of Education of the West African Examinations Council was reintroduced in Ghana. Conducted by the Council in June of each year, the examination is taken by Form V students in both public and private secondary schools and may be taken also by private candidates, i.e., those not attending schools. Although candidates may enter this examination on a single subject basis (taking one or more subjects in any combination) to earn the General Certificate of Education, most students completing Form V take it to earn the full School Certificate.

<sup>8</sup>The West African Examinations Council. *School Examinations in West Africa 1954-1959, A Statistical Summary*. August 1959. p. 2.

To do this, the candidate must enter for at least 6 and not more than 9 subjects.<sup>9</sup> These must include subjects from each of groups I, II, III, and IV in the following grouping of subjects:

- I. Languages: English language, Latin, Greek, French, German, Italian, African languages, Arabic.
- II. General Subjects: English literature, Bible knowledge, Islamic religious knowledge, history, government, geography.
- III. Mathematical subjects: General mathematics, additional mathematics, modern mathematics, additional modern mathematics, mathematics (A-Level).
- IV. Science subjects: General science, additional general science, biology, chemistry, physics, agricultural science, health science.
- V. Arts and crafts: Art, music, needlework and dressmaking, cookery, home management.
- VI. Technical subjects: Geometrical and building drawing, geometrical and mechanical drawing, applied electricity, basic electronics, metalwork, woodwork.
- VII. Commercial and secretarial subjects: Commerce, principles of accounts, economics, shorthand, and typewriting (taken as a single subject).<sup>10</sup>

This is a new revised grouping effective for the 1972 examination. Formerly there were 6 groups. The first 5 were the same: the sixth was "Technical and Commercial Subjects." In the new grouping economics has been moved from Group II to Group VII and woodwork and metalwork from V to VI. Also the following subjects have been added: Applied electricity, basic electronics, modern mathematics.

The grading scale for each subject examination consists of Grades 1 through 9, Grade 1 being the highest and Grade 9 the lowest, and a corresponding scale of words ranging from "excellent" to "failure." The numbered grades appear on result sheets and the word grades (except for failure) on the School Certificate itself. Grades 1 through 3 are, respectively, marks of Excellence, Very Good, and Good; grades 4 through 6 are marks of Credit; Grade 7 and 8 are marks of Pass; and grade 9 is a mark of Failure. Each of the grades 1 through 6 (Credit or better) in a subject on the School Certificate examination is equivalent to a pass at Ordinary-Level in the corresponding subject of the General Certificate of Education examinations of the U.K. Examining Boards. "It is the lowest standard generally recognized for exemption from other examinations and for university entrance."<sup>11</sup>

The equivalencies between the numbered grades, School Certificate marks, and General Certificate of Education Ordinary-Level pass and fail grades are as follows:

<sup>9</sup> An optional oral English test may be taken in addition to the 6 to 9 subjects.

<sup>10</sup> The West African Examinations Council. *School Certificate and General Certificate of Education (Ordinary and Advanced Levels) Regulations and Syllabuses for the Examinations 1972*. pp. 18-19.

<sup>11</sup> *Ibid.* p. 22.



<i>Numbered grades</i>	<i>School Certificate grades</i>	<i>G.C.E. Ordinary-Level grades</i>
1 -----	Excellent	
2 -----	Very good	
3 -----	Good	Pass
4 -----	} Credit	-----
5 -----		
6 -----		
7 -----	Pass	
8 -----	Fail	Fail
9 -----		

An aggregate mark is calculated on the basis of the grades in an individual's best 6 subjects. For example, if the individual obtains Grade 5 in each of his best 6 subjects, his aggregate is 30. The lower the aggregate the higher the standard of overall performance.

To earn the School Certificate the candidate must at a single examination reach a satisfactory standard as judged by his aggregate performance in his best 6 subjects—specifically, an aggregate of not more than 45 in his best 6 subjects—and either pass in at least 6 subjects with credit in at least one of them, or pass in 5 subjects with credits in at least two of them.<sup>12</sup>

School Certificates are awarded in three Divisions. Division I Certificates are awarded to candidates who—

1. Pass in at least 6 subjects, including 1 subject from each of the Groups I through IV.
2. Pass with credit in at least 5 of these subjects, including English language.
3. Obtain an aggregate not exceeding 23 in the best 6 subjects.

Division I Distinction certificates are awarded to those who also obtain credit in some subject from each of the Groups I through IV and an aggregate not exceeding 12.

Division II certificates are awarded to those who—

1. Pass in at least 6 subjects, including English language, drawn from any 4 of the 7 groups.
2. Pass with credit in at least 4 of these subjects.
3. Obtain an aggregate not exceeding 33.

Division III certificates are awarded to those who obtain either one credit and five passes or two credits and three passes and an aggregate of not more than 45. A pass in English language is not compulsory.

A candidate who enters for the full School Certificate (a "full entry" candidate), fails to qualify for the award of a School Certificate, but passes

<sup>12</sup> In this and the following paragraphs "pass" refers to a School Certificate pass (grades 7 or 8 or better), not to a G.C.E. pass. "Credit" or "pass with credit" means obtain grade 6 or better (grades 1-6).

with credit in at least one subject is awarded a General Certificate of Education Ordinary-Level of the West African Examinations Council. Candidates who enter on a single subject basis and pass with credit in at least one subject are also awarded a General Certificate of Education.

*Curriculums.*—The examination regulations have always allowed students to include practical (commercial, technical, domestic) subjects in their final examination. Until recently, however, very few students were taking such subjects. For most students the basic secondary school course was a purely academic one. In recent years, however, the diversification of the secondary school curriculum has been proceeding steadily: Business studies and agricultural science have been introduced into an increasing number of schools. The number of secondary schools offering courses in agriculture increased from 8 in 1969–70 to 28 in 1970–71,<sup>13</sup> and then leaped to 65—about half of all the secondary schools—in 1972.<sup>14</sup> Only one or two of these schools, however, offered agricultural science as a School Certificate subject up through Forms IV and V. The number of secondary schools offering business studies increased to 26 in 1969–70,<sup>15</sup> 37 in 1970–71,<sup>16</sup> and 46 as of 1972.<sup>17</sup> (In addition the Government has in recent years been maintaining a separate group of secondary level commercial schools, which are discussed later in this chapter.)

In the first 3 years (Forms I–III) of the basic 5-year secondary course students take a broad general program including English language, a Ghanaian language—Twi, Fante, Ga, or Ewe—social studies, mathematics, and science (either general science or a pure science). Many schools offer home science for girls at this level and some, as indicated, offer agricultural science or business studies.<sup>18</sup> The program is expected to reflect the requirements of the School Certificate examination.

At the end of Form III a student selects, in accordance with these examination requirements, the subjects he wishes to take in the School Certificate examination. He takes these subjects in Forms IV and V, receiving instruction that follows the subject syllabuses for the School Certificate examination that are issued by the West African Examinations Council. As explained previously, to earn the School Certificate he will have to take an examination in at least 6 subjects, including at least one subject from each of the four groups: (1) Languages, which include English language, a subject evidently required of all students, Ghanaian languages, and others, (2) general subjects, which include Bible knowledge, English

<sup>13</sup> The Editors. "Recent Developments in Ghana Education," *Ghana Journal of Education*, 2:4:19, October 1971.

<sup>14</sup> Information supplied by Ghana's Ministry of Education, July 1972.

<sup>15</sup> The Editors. "Recent Developments in Ghana Education," loc. cit. p. 19.

<sup>16</sup> *Ibid.* p. 2.

<sup>17</sup> Information supplied by Ghana's Ministry of Education, July 1972.

<sup>18</sup> Students enrolled in business studies take only general education subjects in Forms I and II and general education subjects and two business education subjects—typewriting and commerce—in Form III. The Editors. "Recent Developments in Ghana Education," loc. cit. pp. 2, 3.

literature, and social studies subjects, (3) mathematical subjects, and (4) science subjects, which include health science and agricultural sciences as well as general science, physics, chemistry, and biology. He selects his other subjects from these or other groups of subjects. Students concentrate on either arts subjects, science subjects, or commercial subjects, and they are identified in the educational statistics as either arts, science, or commerce students.<sup>19</sup>

Today as in past years, arts students outnumber science students and both greatly outnumber commercial students. As of 1971-72, 53 percent of all Form IV students in public secondary schools were arts students; 39 percent, science students; and 8 percent, commerce students. With only one or two schools offering agricultural science and few offering technical subjects at the Form IV and V level, probably very few of the science students were taking these subjects.

The number of "full entry" school candidates<sup>20</sup> who took examinations in each of a number of subjects in the June 1969 G.C.E. Ordinary-Level examination was as follows:<sup>21</sup>

English language	9,092
Mathematics	6,748
Bible knowledge	4,898
History	4,802
English literature	4,731
Geography	4,049
General science	3,712
French	3,069
Biology	2,841
Ghanaian languages (Twi, Fante, Ga and Ewe)	2,076
Additional mathematics	2,006
Chemistry	1,806
Physics	1,703
Art	1,257
Additional general science	1,255
Economics	1,049
Health science	1,016

Much smaller numbers took technical, commercial or domestic subjects, and agricultural science.

The list suggests the subjects that have been and may still be taken by the largest number of Ghanaian students in Forms IV and V. Next to English language and mathematics, the most heavily enrolled subjects

<sup>19</sup> Students who take at least two science subjects are classified as science students. In Form IV and Form V, commerce students take, in addition to the one subject from each of the four groups required for the School Certificate examination, four business subjects: Typewriting, shorthand, commerce, and bookkeeping (principles of accounting) in Form IV; typewriting, shorthand or bookkeeping, commerce, and office practice in Form V. *Ibid.* p. 3.

<sup>20</sup> Candidates from all schools, public and private, who took 4 or more subjects.

<sup>21</sup> The West African Examinations Council. *Annual Report for the Year Ended 31 March 1970*. p. 77.

were Bible knowledge, history, and English literature. Students studying history now prepare for an examination in one of the following: History of West Africa A.D. 1000—Present Day; History of Africa in the Nineteenth and Twentieth Centuries; World History Circa 1750 to Date. Formerly the student could take his Ordinary-Level examination in European and British History 1763–1945 or History of the British Empire and Commonwealth. These two examinations were not replaced by the third subject, World History Circa 1750 to Date, until 1969. English literature includes Shakespeare, drama and prose (including writings of African authors), poetry (including West African verse), and classical English novels.

For many years Ghanaian students have been able to select one of four Ghanaian languages (Twi, Fante, Ga, and Ewe) as an Ordinary-Level examination subject. During the 1960's the percentage of students who did this declined steadily. In 1960, 51 percent of the candidates from a group of older secondary schools offered a Ghanaian language. By 1968 only 25 percent did so.<sup>22</sup> By the late 1960's, as the 1969 list above indicates, the number of students taking an examination in French was larger than the combined number taking Ghanaian languages. One concerned author explained:

... a number of secondary school entrants, particularly Ghanaian children from International Schools and Preparatory Schools for which the Ministry of Education has no direct responsibility, do not speak any Ghanaian language nor are they taught in their primary schools any Ghanaian language as a subject. And although in some secondary schools attendance at vernacular classes is compulsory for the first two or three years of the five-year secondary school course, the students tend to regard these vernacular periods as a rest-cure and do not pay much attention and, as a result of their weak foundation in the subject do not feel confident enough to offer it for the School Certificate Examination.<sup>23</sup>

Latin was once a heavily enrolled subject, but has virtually disappeared from the curriculum. In 1960 about 44 percent of the students taking the Ordinary-Level examination offered it as a subject. This percentage had fallen to about 4 percent in 1968.<sup>24</sup>

### *The Sixth Form*

The 2-year sixth form course (Lower Form VI and Upper Form VI) has always been a program of study in a limited number of academic subjects which has served primarily as a university preparatory program. The students have specialized in either arts or science.

<sup>22</sup> I. K. Chineduah, "The Education Review Report and the Study of Ghanaian Languages," *Ghana Journal of Education*, 1:2:24, January 1970.

<sup>23</sup> *Ibid.*, p. 35.

<sup>24</sup> *Ibid.*, p. 24.

Since 1960, when the new School Certificate examination taken in June was introduced, students have been selected for entry to the sixth form on the basis of their performance in the Ordinary-I-level examination—the School Certificate or the G.C.E. examination.<sup>25</sup> As of 1972 the minimum requirement for entry was a “pass with credit” or better (the equivalent of a General Certificate of Education Ordinary-Level pass) in five subjects, including English, and an aggregate in the five subjects not exceeding 23 (for boys) or 25 (for girls). Many Sixth Forms have, however, required an aggregate not exceeding 20.

The course has always prepared students for external examinations at “Advanced-Level” and has been based on the subject syllabuses for these examinations. Formerly students completing the course took subject examinations administered entirely by examining bodies in the United Kingdom, and their programs were based on subject syllabuses issued by those bodies. From January 1951 (when the first Ghanaian Sixth Form students completed their course at Achimota) through 1961, Sixth Form students took the Cambridge Higher School Certificate examination administered by the University of Cambridge Local Examinations Syndicate.<sup>26</sup> From June 1962 through June 1967 they took the University of London General Certificate of Education Advanced-Level examinations administered solely by the University of London School Examinations Department<sup>27</sup> and also a General Paper of the West African Examinations Council set for Advanced-Level candidates. When Ghana (and Sierra Leone and ~~Gambia~~) shifted to the University of London examinations, the university made a number of changes in its syllabuses and examinations for various subjects to adapt these to local West African needs,<sup>28</sup> but it evidently became clear that “. . . Only if West Africa establishes its own examination will it be able to have syllabuses specially suited to the requirements of its universities and secondary schools. The British examining bodies are, understandably, reluctant to introduce new syllabuses for comparatively small numbers of candidates and they cannot find examiners in Britain for syllabuses with a strong West African bias. . . .”<sup>29</sup>

<sup>25</sup> Previously students were selected through a special Sixth-Form entry examination, administered by the West African Examinations Council, which included English and 3, 4, or 5 other subjects.

<sup>26</sup> In 2 very early years, 1952 and 1953, the London University Intermediate Examination was also taken by some Sixth Form students.

<sup>27</sup> The change in Ghana's school year that took place in 1960 made it impossible to continue with the Cambridge examination that was offered late in the calendar year. A shift was therefore required to the University of London June examination.

<sup>28</sup> A syllabus in African history was approved as an optional subject for 1 of the 3 examination papers making up the history examination. A special syllabus in English literature was developed for the four West African countries. A new syllabus in economics required pupils to illustrate their answers by reference to the economies of West Africa and one in economic history provided that students would write one paper in West African economic history and one in British and European rather than write two papers in British and European economic history. Modifications in biology and zoology syllabuses were also made.

<sup>29</sup> The West African Examinations Council. *Annual Report for the Year Ended 31 March 1965*. p. 25.

The West African Examinations Council therefore decided in 1965 to establish its own Advanced-Level General Certificate of Education examinations for Sixth Form students.<sup>30</sup> Since then it has been issuing—a few at a time—its own Advanced-Level (A-Level) subject syllabuses. Beginning in June 1968 it has introduced each year one or more new General Certificate of Education Advanced-Level examinations of its own; i.e., examinations based on council syllabuses and conducted entirely (set and marked) by the council. It has thus been gradually taking over from the University of London complete responsibility for the A-Level examinations.

The tabulation shows the subjects for which the council had issued syllabuses, the dates on which council examinations based on these syllabuses were first taken in Ghana, and the school year in which Ghanaian secondary schools presumably began to use the new syllabuses in order to prepare their students for these examinations.

<i>Subject</i>	<i>Date of first examination</i>	<i>First school year new syllabus used</i>
Economics	June 1968	1966-67
Economic history	June 1968	1966-67
Government	June 1968	1966-67
Chemistry	June 1969	1967-68
Mathematics	June 1970	1968-69
Geography	June 1970	1968-69
Biology	June 1971	1969-70
Physics	June 1971	1969-70
History	June 1971	1969-70
English literature	June 1972	1970-71
Religious studies	June 1972	1970-71

By 1972 syllabuses issued by the council were being used for most of the subjects taken by any considerable number of Ghanaian Sixth Form students, and council G.C.E. Advanced-Level examinations had already been held in these subjects. Other subjects were still covered by University of London G.C.E. A-level syllabuses and examinations.

Seven grades are used in marking both the West African Examinations Council and the University of London Advanced-Level subject examinations. The first five, A, B, C, D, and E, are grades of pass in descending order of merit. The sixth grade in the University of London examination is Grade O, denoting an Ordinary-Level (O-level) pass. In the West African Examinations Council examinations the sixth grade is a "subsidiary pass" which is defined as "a standard below A-Level and above the O-Level."<sup>31</sup> The seventh grade in both West African Examinations Coun-

<sup>30</sup> Ibid.

<sup>31</sup> The West African Examinations Council. *School Certificate and General Certificate of Education (Ordinary and Advanced Levels) Regulations and Syllabuses for the Examinations 1972*. p. 17.

cil and London examinations is a failure. To qualify for the award of a General Certificate of Education Advanced-Level of the West African Examinations Council, the candidate need only attain Grade E in one subject.

In addition to the subject examinations, the West African Examinations Council administers a General Paper for Advanced-Level candidates. This is designed to test the student's intellectual ability rather than how much knowledge he has, to serve as a means of ensuring that he reads widely, and to test his use of language as a tool. It consists of two papers. The first covers (1) African and non-African cultures and art forms, (2) social, economic, and political issues of the modern world, including problems of philosophy and religion, and (3) the development and application of science and its results in the modern world, particularly in developing countries. The second paper tests comprehension of a passage in English, ability to interpret graphical, diagrammatical, or tabular presentation of facts, and ability to think clearly and detect illogical or emotional statements.

Each Sixth Form student specializes in arts or sciences throughout his course. In either case, he takes 3 or 4 subjects (usually 3) and also a general studies course to prepare for the General Paper. The subjects available include those on the list given previously and others examined by the University of London. Judging by the number of persons taking Advanced-Level examinations in each subject in 1968, the arts subjects taken by the largest number of students have been economics, history, English literature, and government; and the science subjects, physics, chemistry, and mathematics.

Presumably most Ghanaian students completing the Sixth Form take examinations at Advanced Level in three or four subjects and the General Paper of the West African Examinations Council set for Advanced-Level candidates. The General Paper is optional but a pass in it is required for university admission in Ghana. All of an individual's A-Level subject examinations will be examinations for the General Certificate of Education Advanced-Level of the West African Examinations Council administered by the council unless he has taken one (or more) subjects for which the council has not yet introduced an A-Level examination. If he has done so, he will take an examination for the University of London General Certificate of Education Advanced-Level in this subject (or subjects) and council examinations in the others.

### Teachers

As of 1971-72, 53.4 percent (1,710) of the total 3,199 staff members of the public secondary schools were university graduates and of the remaining 1,489 nongraduates, more than half (811) held diplomas or specialist qualifications (including those earned at the Advanced Teacher Training College, Winneba). The proportion of graduate staff in the secondary

schools varies, of course, from school to school and Region to Region. Published data<sup>22</sup> show that in 1968-69, when 52 percent of all secondary school teachers in the country as a whole were graduates, the proportion ranged from 37 percent in the Brong-Ahafo Region to 62 percent in the Central Region, where several of the oldest institutions are located, and 65 percent in the Northern Region, where there are comparatively few but well-staffed schools.

Ghana's secondary schools have drawn Ghanaian graduate staff not only from the University of Cape Coast but from the other two universities in Ghana and from overseas institutions. The schools have never received a sufficient number of Ghanaian graduate teachers, partly of course because university graduates have regarded school teaching as a last resort. Ghana has consequently had to rely rather heavily on foreign teachers to staff her secondary schools, particularly to provide graduate staff. As late as 1967-68, one-third of all the public secondary school staff members and well over one-half (57 percent) of all the graduate staff members were expatriates. Within a few years the situation had greatly improved. As of 1971-72, 83 percent (2,665) of the total staff was Ghanaian. The remaining 17 percent (534), came from the United States (214), Great Britain (130), Canada (54), and other countries (136). Of the total graduate staff, 70 percent (1,202) were Ghanaians and 30 percent (508) expatriates. Expatriates, however, made up a higher percentage of the total graduate teaching staff for certain subjects. About 46 percent of all graduate teachers of sciences and mathematics and about 43 percent of all graduate teachers of French were expatriates. The following tabulation presents details for certain subjects:

	<i>Number of graduate teachers</i>			<i>Non-Ghanaian teachers</i>
	<i>Total</i>	<i>Ghanaian</i>	<i>Other</i>	<i>as percent of total</i>
Biology	116	74	42	36
Chemistry	98	64	34	35
General science	53	17	36	68
Mathematics	174	88	86	49
Physics	95	47	48	51
Other sciences <sup>1</sup>	7	3	4	57
French	182	104	78	43
English language	297	220	77	26

<sup>1</sup> Agricultural science, geology, home science, health science.

Although the total number of Ghanaian graduates entering secondary school teaching is likely to increase rapidly in coming years, there may be continuing shortages of Ghanaian teachers of mathematics, French, and sciences.

<sup>22</sup> Republic of Ghana, Ministry of Education. *Educational Statistics 1968-69*. Accra: 1971. p. 54.



## Commercial Schools

In addition to the secondary schools previously discussed in this chapter, the public educational system includes nine assisted commercial (or business) schools. These are secondary schools that offer a more specialized commercial course than the regular secondary schools offering business studies.

In the commercial schools the students take general education subjects in Forms I and II, general education and business education subjects in Form III, and a specialized program of business education subjects in Forms IV and V. In Form V the student specializes in secretarial science or business administration, selecting at least six appropriate subjects, including English language and the four compulsory subjects for his option, from the following: English language, office practice, economics, business mathematics, business principles and management, typewriting, shorthand, bookkeeping, business engineering, and communications.

The courses in general education subjects are designed specifically for students in the business schools and are more practical than theoretical. The school itself prepares and administers its own examinations to determine whether students have covered the set content for a year and should be promoted to the next form. The courses in business education subjects follow the syllabuses for and lead to the examination for the new Ghana Business Certificate (Ordinary).

The Ministry of Education officially approved syllabuses for the Ghana Business Certificate (both Ordinary and Advanced) in 1970-71; the first of the examinations for the Certificate, which are to be conducted each year by the West African Examinations Council on behalf of the Ministry of Education, were held in July 1971. In order to earn the Ghana Business Certificate (Ordinary) the student must pass in six subjects, including the four compulsory subjects for his option (secretarial or administration). In order to obtain the Business Certificate (Advanced) he must pass in communications and three of the following subject areas: Accounting and finance, business management, quantitative methods, secretarial science.<sup>33</sup>

<sup>33</sup> The Editors. "Recent Developments in Ghana Education." loc. c. . pp. 3-7.

#### IV. TEACHER TRAINING

The "teacher-training colleges" provide all teacher training in Ghana, with two major exceptions—(1) preparation (which takes place in the universities) of graduate teachers for secondary schools and of one category of specialist teacher for these schools and the teacher-training colleges, and (2) training (which takes place in two technical teacher-training institutions) of technical, handicraft, and business teachers. As a group, the teacher-training colleges offer courses at post-middle and post-Ordinary level that provide the initial training of general teachers for the elementary (primary and middle) schools, the colleges also train, in smaller numbers, certain specialist teachers for the elementary schools, secondary schools, and teacher-training colleges.

This group of training colleges consists of (1) three specialist colleges training only specialist staff (the Advanced Teacher Training College and the Specialist Teacher Training College, both at Winneba, which train primarily personnel for secondary level institutions, and the Deaf Specialist Training College), and (2) a much larger number of "initial" training colleges, which give initial training for general elementary school teachers and a few of which also give specialist courses.

#### Background

The teacher-training sector has had a complex and often disappointing history. During the years of rapid elementary school expansion (the 1950's and early 1960's), the Government opened many new training colleges to turn out trained teachers for the elementary schools and instituted various changes in the program of study in these colleges.

Before self-government in 1951, the colleges of the Gold Coast gave three courses: A 4-year post-middle (then called senior primary) school Certificate A course, a 2-year post-School Certificate level Certificate A course, and a 2-year post-middle school Certificate B course, which was introduced about 1944, as an addition to the Certificate A courses, to train primary school teachers in greater numbers for rural schools.

In order to implement the Accelerated Development Plan the new government that came to power in 1951 not only hired large numbers of pupil teachers but also radically reduced the length of training for most students entering teacher training. It introduced this reduction in order to turn out

a much larger number of trained teachers for the elementary schools. The Certificate A 4-year course was eliminated. All students entering teacher training at post-middle school level (i.e., the great majority of all entering trainees) took the 2-year Certificate B course instead, and then went out to teach. New colleges were built to offer the course. A new 2-year Certificate A (Post-B) course was started in the Certificate A colleges to permit Certificate B teachers who had taught for 2 or 3 years and passed an entrance examination to earn the Certificate A, but less than half of the Certificate B teachers actually qualified for this further training. This system remained in effect for a decade (1952 through 1962). It did permit the training of more teachers than could otherwise have been produced, but it was increasingly recognized that in many cases 2 years of training were inadequate.

In 1961 the Government decided to eliminate the Certificate B course and replace it with the Certificate A 4-year course. The last of the Certificate B courses ended at the close of school year 1962-63. From the beginning of that year all those entering teacher training at post-middle school level took the Certificate A 4-year course.

The number of initial training colleges increased from 21 in 1951 to 46 in 1964-65. In the early 1960's, however, they had utterly failed to keep pace with elementary school expansion, and the deteriorating situation in the elementary schools, where almost two-thirds of the teachers were untrained in 1965-66, "caused the Nkrumah Government to panic belatedly with the sudden decision to open 35 new training colleges in September 1965."<sup>1</sup> With the opening of these colleges, the number of initial colleges shot up to 82—78 Certificate A 4-year or Certificate A (Post-B) colleges and only 4 Certificate A Post Secondary colleges. Moreover, their total intake increased from less than 3,800 in 1964-65 to almost 6,800 in 1965-66. Two of the 35 new colleges closed down in 1965-66 and two more the following year, mainly because of a lack of proper accommodation, and a temporary embargo was placed on the admission of new students to the new colleges because of their lack of facilities.

Soon after the 1966 coup the National Liberation Council decided to eliminate the Certificate A (Post-B) course for Certificate B teachers because it was "financially and administratively not possible to allow such teachers to do the course on study terms,"<sup>2</sup> to use the colleges that had offered it for Certificate A 4-year courses, and to provide in place of the Post-B course inservice training courses to permit Certificate B teachers to qualify for the Certificate A. The last students taking the Certificate A (Post-B) course completed it at the end of 1967-68. Since then the initial

<sup>1</sup> *Ghana Journal of Education*, 2:4:51-52, October 1971. The quotation is from an unsigned review of a Ministry of Education publication in the "Notes, News and Views" section of this issue.

<sup>2</sup> Republic of Ghana, Ministry of Education, *Education Report 1963-67*. Accra-Tema: Ghana Publishing Corporation, 1968? p. 11.

training colleges have given only two courses of initial training: the Certificate A 4-year course and the Certificate A Post Secondary course.

It was not until 1968 that teacher training received a new emphasis. In that year the N.L.C. decided to restore the intake into the training colleges, which had fallen off after the coup, to the 1965-66 level, and it also initiated a program, still underway, to consolidate the system of initial training colleges. Noting that a major obstacle to improving teacher education was the "large number of small colleges which are hardly viable at their existing levels of operation," the Two-Year Development Plan stated that the Government "intends to consolidate the teacher training college system on a rational basis and will increase the enrollment in each individual college."<sup>3</sup> Since then, under the "Teacher Training Consolidation Programme," aimed at having fewer and larger initial colleges, the total number of such colleges has been declining while at the same time the number of colleges giving the post-School Certificate level Certificate A Post Secondary course has been increasing. The total number of initial training colleges fell from 80 in 1968-69 to 73 in 1969-70 and to 71 in 1970-71 and 1971-72, while the number of initial training colleges offering the Certificate A Post Secondary course increased to 11 in 1968-69 and 12 in 1971-72. The objective is to reduce further the number of initial training colleges and to have all of them give only the Certificate A Post Secondary course by about 1975-76.

The three specialist colleges were established as separate institutions in 1965 and 1966. The section of the Winneba Training College that had been offering specialist courses in art, home science, music, and physical education since 1958 became the Specialist Teacher Training College, Winneba, in 1965-66. The Deaf Specialist Training College opened about the same time. Then, at the beginning of school year 1966-67, the National Liberation Council established the Advanced Teacher Training College at Winneba on the premises of the Ideological Institute that Nkrumah had established and that the N.L.C. had, of course, closed immediately after the coup of 1966.

## The Colleges and Their Staff

### *Colleges*

As of 1971-72, Ghana had these three specialist colleges and 71 initial training colleges. Of the latter, 12 were offering the 2-year Certificate A Post Secondary course. Of these 12, the following 6 were giving only the 2-year Certificate A Post Secondary course.

<sup>3</sup> Republic of Ghana. *Two-Year Development Plan* . . . . Accra-Tema: State Publishing Corporation, 1968, p. 85.

Bagabaga	<i>Region</i>
Akropong Presbyterian	Northern
Berekum	Eastern
Peki	Brong-Ahafo
Wesley	Volta
Winneba	Ashanti
	Central

The following three gave the Certificate A Post Secondary course and seemed to be phasing out the Certificate A 4-year course.

Foso	<i>Region</i>
Komenda	Central
St. John Bosco	Central
	Upper

The following were offering all years of both courses.

Akrokerri	<i>Region</i>
Holy Child, Takoradi	Ashanti
St. Francis	Western
	Volta

The remaining 59 colleges offered the post-middle school level Certificate A 4-year course, but of these only 38 were giving all 4 years of the course while the other 21 were apparently phasing out their work. Of these 21, 9 were offering only the fourth year, 6 the third and fourth, and 6 the second, third, and fourth. These figures suggest that the number of 4-year colleges was to be reduced to 50 in 1972-73, to 44 in 1973-74, and to 38 in 1974-75.

Two of the colleges named above, Bagabaga (formerly Government) Training College located at Tamale in the Northern Region and Holy Child Training College located at Takoradi in the Western Region, offered specialist courses in addition to their Certificate A courses, as did a third college, Aburi Presbyterian Training College located in the Eastern Region.

A majority of the colleges not phasing out their courses enrolled between 200 and 300 students in 1971-72. About 10 enrolled between 300 and 400, and 6—the Advanced Teacher Training College and the Akropong, Foso, St. Francis, Akrokerri, and Wesley “Post Secondary” colleges—enrolled more than 400. The very small Deaf Training College had only 21 students.

### *Staff*

In 1971-72 about 31 percent of the 1,275 staff members of the teacher-training colleges (including the three specialist colleges) were university graduates. Another 58 percent held specialist diplomas of various types, and the remaining 11 percent had other qualifications. In the three spe-

cialist colleges more than 60 percent were graduates; all of the rest held specialist diplomas.

Although the 134 non-Ghanaian teachers constituted only about one-tenth of the total staff of all the colleges, the 110 non-Ghanaian *graduate* teachers made up about 28 percent of the total *graduate* staff. Most (82) of these expatriate graduates were teaching English language, mathematics, and general science. Those teaching mathematics and general science outnumbered Ghanaian graduate teachers of these subjects.

## Courses

### *Initial Training Courses*

Since the close of school year 1967-68 the initial training colleges have given two courses of initial training for general (nonspecialist) elementary school teachers: (1) The 4-year post-middle school "Certificate A 4-year" course, (2) The 2-year "Certificate A Post Secondary" course. The first is to be phased out by about 1975-76.

The National Teacher Training Council, an organization representing a large number of organizations and institutions,<sup>4</sup> is charged by the Ministry of Education with advising the Ministry on all aspects of these initial training courses—selection of students, content of courses, and examinations.

To enter the Certificate A 4-year course the individual, who may be either a student successfully completing Middle Form IV or an untrained teacher, must hold the Middle School Leaving Certificate and be selected for the course on the basis of his performance in the Combined Examination for Entry to Four-Year Teacher Training Colleges and for Pupil Teachers' Selection. This examination consists of objective papers in English and arithmetic and an English composition paper, and is administered by the West African Examinations Council. To enter the 2-year Certificate A Post Secondary course he must have passed 5 subjects, including English, at the General Certificate of Education Ordinary-Level.

The required subjects for both Certificate A courses are English, mathematics, geography, history, music, arts and crafts, Ghanaian languages, and education. The syllabus for each subject is prepared by a subject panel established by the National Teacher Training Council. Panel members are drawn from teacher-training colleges and they coopt other members. Each college prepares its own timetable.

An internal college examination is taken in the third year of the 4-year course and in the first year of the 2-year course. An external examination

<sup>4</sup> The University of Cape Coast; the Advanced Teacher Training College, Winneba; the Specialist Teacher Training College, Winneba; the Ghana National Association of Teachers; the Association of Training College Tutors; the West African Examinations Council; the Ministry of Education; and all Educational Units and Local Authorities.

is taken in the final year of each course. Students completing the 4-year course take a final external examination in five subjects—English (2 papers), mathematics (1), education (1), geography (2), and history (2); those completing the 2-year course take one in three subjects—English (1 paper), mathematics (1), and education (1).

Both external examinations are conducted by the West African Examinations Council on behalf of the National Teacher Training Council. The latter provides the syllabuses and specimen papers on which the examination is based. The West African Examinations Council appoints examiners to prepare the examinations, arranges for marking, issues mark lists, and recommends pass standards to the National Teacher Training Council, which makes the final decision on these standards. On the basis of performance in the external examination (which some say is the most important factor) and in internal examinations, and also on the basis of an assessment of practical teaching ability by regional panels, the National Teacher Training Council makes recommendations to the Ministry of Education for the award of teachers certificates. The system has been criticized: for example, it is claimed that the Examinations Council has inadequate knowledge of college programs and objectives and sets examinations that are inadequately related to them and give the advantage to the academically oriented.<sup>5</sup> As of 1972, consideration was being given to a proposal that the National Teacher Training Council take over entire responsibility for the final examinations.

### *Specialist Courses in Certificate A Colleges*

Three of the Certificate A initial training colleges offer, in addition to the 4-year and/or 2-year Certificate A courses, specialist courses for training specialist teachers. The Aburi Presbyterian and Holy Child colleges give a further 2-year Certificate A Housecraft course to train certificated teachers as teachers of housecraft for the elementary schools.<sup>6</sup> The Bagabaga Training College (which was until 1971-72 the Tannale Government Training College) offers, in addition to the Certificate A Post Secondary course, a 1-year "Rural Science" course to prepare experienced Certificate A teachers to serve as specialist teachers of science (including agriculture, general science, and health science) in middle schools and a 2-year "Agricultural Science" course that began in 1964-65 to train experienced Certificate A Post Secondary teachers as specialist teachers of agricultural science for the secondary schools and the teacher-training colleges. The University of Cape Coast is the external examiner for the latter. (It reviews the syllabus and conducts the examination.)

<sup>5</sup> K. Asiedu-Akrofi, "Organization of Examinations for Teachers and Curriculum Development in Ghanaian Teacher Training Colleges," *Ghana Journal of Education*, 4:1:17-35, January 1973.

<sup>6</sup> Formerly these colleges gave an initial Certificate A 1-year Housecraft course to middle school leavers. The last students to take this course entered in September 1967. The current 2-year course began in 1969.

### *Courses in the Three Specialist Colleges*

The three specialist teacher training colleges—the Advanced Teacher Training College (A.T.T.C.), Winneba; the Specialist Teacher Training College (S.T.T.C.), Winneba; and the Deaf Specialist Training College, Mampong-Akwapim—offer a variety of programs. The first two colleges train nongraduate specialist teachers for the secondary schools and the teacher-training colleges; one of them, the Advanced Teacher Training College, also trains personnel for the elementary schools.

The Advanced Teacher Training College, Winneba, opened in school year 1966-67 on the premises of the former Ideological Institute and took over special advanced courses that several teacher-training colleges had been offering since the beginning of 1964-65 to prepare much-needed teachers of academic subjects for the secondary schools and teacher-training colleges.

The college gives a 2-year course in each of six fields: English, geography, history, general science, mathematics, and education. All except the education course take in Certificate A Post Secondary teachers who have taught for a few years and have the required Ordinary-Level qualifications, and train them as specialist nongraduate teachers of one of the basic school subjects for the secondary schools and teacher-training colleges. In other words, they are upgrading courses to enable trained experienced elementary school teachers to teach temporarily in the higher level institutions. During the 2-year course the teacher studies his special or major subject up to a standard that is equivalent to G.C.E. Advanced-Level and also receives advanced instruction in education and a general course in English. The specialist course in education, which started in 1968-69 and replaced the former Associateship course offered at the University College of Cape Coast, takes in both Certificate A 4-year and Certificate A Post Secondary teachers and trains elementary school supervisory and administrative personnel, including school principals.<sup>7</sup> The University of Cape Coast is the external examiner for all these courses. Successful students are awarded the Specialist Certificate.

Today, as for a number of years, the Specialist Teacher Training College, Winneba, trains nongraduate specialist teachers of art, home science, music, and physical education for secondary schools and teacher-training colleges, thus carrying on a specialist teacher-training activity that has a rather long history in Ghana.<sup>8</sup> All of its old 2- or 3-year certificate courses

<sup>7</sup> In 1969-70 the college also gave a post-G.C.E. Advanced-Level 1-year course in mathematics and another in science, but these were discontinued, although teachers of these subjects, especially science, are still very much needed.

<sup>8</sup> A course in each of the four fields began many years ago, between 1946 and 1950, at Achimota. In 1951 all four courses were moved to Kumasi to form the nucleus of the Kumasi College of Technology. In 1958 they were moved again to an institution then named the Winneba Training College. Since 1963-66, when the section of this college that gave the 2-year Certificate A Post Secondary course became a separate college, the Specialist Teacher Training College has been solely devoted to the specialist courses.



in these subjects had been discontinued by the beginning of school year 1968-69. The College since then has offered a 4-year course in each of the four fields. These courses lead respectively to The Diploma in Art Education, The Diploma in Home Science, The Diploma in Music Education, and The Diploma in Physical Education.

Most of the students beginning the diploma courses are teachers who have completed their initial teacher training and have taught for a few years, but some are direct entrants from the secondary schools. To enter the courses in art, music, and physical education, the individual must have the Teachers Certificate A (4-year or Post Secondary) and, except in music, have at least 3 years of teaching experience and pass an entrance examination for the course. To enter the home science course the individual must have (1) a Certificate A 4-year and a pass at G.C.E. Ordinary-Level in home science, or (2) a Certificate A Post Secondary and a pass at G.C.E. Ordinary-Level in general science (or any two science subjects), or (3) a School Certificate or General Certificate of Education with passes at Ordinary-Level in 4 subjects, including general science (or any two science subjects) and English and also pass the entrance examination. (Individuals who hold the General Diploma in Music of the University of Ghana are admitted to the fourth year of the 4-year music course.)

The University of Cape Coast is the external examiner for the courses in art and physical education and the University of Ghana for those in home science and music.

The Deaf Specialist Training College, Mampong-Akwapim, which was built and opened in 1965, gives a 2-year course to train specialist teachers of the deaf for Ghana's schools for deaf children, including the School for the Deaf, Mampong-Akwapim, and also to train teachers for schools in other countries. The college was recognized (probably in 1971) by the International Congress for the Deaf as a training center for teachers from developing countries and received Ministry of Education approval to admit its first foreign students during school year 1971-72.<sup>9</sup>

#### *Further Training for Certificate B Teachers and Pupil Teachers*

Further training of serving Certificate B teachers (those who received a 2-year post-middle school initial training course) was formerly provided through the 2-year full-time Certificate A (Post-B) course. The last of these courses ended in 1968. Subsequently the National Teacher Training Council gave three summer vacation courses for Certificate B teachers at selected teacher-training colleges: the teachers who attended these courses took the Certificate A examination in June 1972. Presumably part-time courses of this type will continue to be offered.

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<sup>9</sup> The Editors, "Recent Developments in Ghana Education," *Ghana Journal of Education*, 2:4:9, October 1971.

Untrained pupil teachers are encouraged to gain entry to a Certificate A 4-year college and earn their certificates. In recent years they have been allowed only 3 years in which to gain admission. If they do not succeed during this period, they are dismissed from their teaching positions.

## V. TECHNICAL EDUCATION

### Schools

In the late 1960's and early 1970's Ghana had within the public educational system a total of 15 technical institutions which, as a group, offered a wide variety of courses between middle school and university level. These are the three Polytechnics located at Accra, Kumasi, and Takoradi, each of which offers a range of full-time and part-time courses at post-middle and postsecondary level to more than 1,000 students; the Tarkwa School of Mines, a small institution closely related to the mining industry, sometimes classified as a Polytechnic; seven fairly small (150-600) Technical Institutes, located at Asuansi, Ho, Kikam, Koforidua, Kpandu, Sunyani, and Tamale, which give post-middle courses mostly on a full-time basis; two technical training centers that train employees in industry, the large Accra Technical Training Center and the small Tema Textiles Center; and two small technical teacher-training institutions, the Technical Teachers College, Kumasi, and the Mampong Technical Teachers Institute.

Of the total staff (422) of the 15 technical institutions in 1971-72, about 64 percent (271) were professionally qualified nongraduates, about 17 percent university graduates, and the remaining 19 percent other nongraduates. About 13 percent of the total staff and 40 percent of the graduate staff were expatriates.

The three Polytechnics, the Tarkwa School of Mines, and three of the Technical Institutes trace their histories back to the 1950's or earlier. The other institutions opened in the 1960's. When self-government came (1951), the Gold Coast had one Technical Institute at Accra and three Trade Training Centers (renamed Government Trade Schools in 1953) at Asuansi, Mampong, and Tamale, which gave 4-year courses to students who had completed 10 years of schooling or less. During the period of the Accelerated Development Plan another Trade School (Kpandu) and three other Technical Institutes (Kumasi, Takoradi, Tarkwa) came into operation. Thus by 1956 there were four Technical Institutes and four Trade Schools, which together gave courses in building and in mechanical and electrical engineering trades, as well as courses in commercial and domestic subjects and part-time (evening and day release) courses for apprentices.

A reorganization of courses began in 1957. The old 4-year trade courses gave way to a new program consisting of a prevocational course of about

18 months and 2-year specialized courses in specified trades, which followed City and Guilds of London Institute syllabuses. The first courses to train technicians started in September 1958 and the first Advanced craft courses a year later. In 1959 the Government Trade Schools that gave the prevocational courses were renamed Junior Technical Institutes to accord with the changed status of their new courses. The two technical teacher-training institutions, among the first in middle Africa, admitted their first students in 1960.

A further reorganization of technical education began in 1963. The Technical Institutes—except for the one at Tarkwa, which had been renamed the Tarkwa School of Mines in June 1961—were renamed Polytechnics and the Junior Technical Institutes—except for the one at Mampong which had earlier become the Technical Teacher Training Institute—were renamed Technical Institutes. The intention was that the Technical Institutes (including two new ones opened in 1963-64) would take over from the Polytechnics all programs at the post-middle school level while the Polytechnics would concentrate mainly on postsecondary (post-Ordinary-Level) technical, business studies, and domestic science courses and advanced craft courses. Later the two technical training centers, institutions of a new type in Ghana, opened in 1966-67, and two other Technical Institutes opened in 1967-68. The present system of technical institutions was then complete.

Divided by types of programs, the technical institutions fall into three categories: the Polytechnics, the Tarkwa School of Mines, and the Technical Institutes; the technical training centers; and the technical teacher-training institutions.

### **Programs of Study**

#### *Polytechnics, Technical Institutes, and School of Mines*

Taken together as a group, the Polytechnics, the Tarkwa School of Mines, and the Technical Institutes offer a great variety of full-time courses at post-middle school and post-Ordinary-Level. These courses, for many of which City and Guilds of London Institute syllabuses and examinations are used, include preparatory general education courses; courses to train craftsmen and technicians in mechanical, electrical, and mining engineering and building trades; commercial or business studies courses; and courses in domestic subjects, catering, and institutional management. These institutions also offer many of these and other courses on a part-time (day release, sandwich, and evening) basis to persons already employed.

The first course on the ladder of technical education (excluding business and domestic studies) is the 2-year<sup>1</sup> "Pre-Technical" course. The boys

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<sup>1</sup> A 1-year course up through 1964-65.

who enter it have completed Middle Form IV, have taken the Common Entrance Examination (the same examination used for selection of students for general secondary schools), and have been selected on the basis of their performance in this examination. A program of general education consisting of English, mathematics, science, technical drawing, metalwork, and woodwork, the Pre-Technical course is intended to prepare students for further technical or vocational courses or for apprenticeship training in industry. It is based on a Ministry of Education syllabus and leads to a Ministry of Education Examination.

The Pre-Technical course is followed by (1) two 2-year General Technical courses, the General Course in Engineering and the General Course in Building, and by (2) a variety of vocational (craft) courses in engineering and building trades, most of which are 2 years in length. Students who have completed the Pre-Technical course are selected on the basis of their ability and aptitude for one of the General Technical courses or for one of the craft courses; the "more academically endowed" proceed to general technical courses and those "with an aptitude for practical work" to the vocational craft courses. Students who have completed the 5-year basic general secondary course in a secondary school and wish to enter technical education are admitted to the second year of a general technical course.

Most of the vocational courses for craftsmen are 2 years in length. Most of them lead to a Craft (Intermediate) Certificate of the City and Guilds of London Institute although a few mining craft courses—fitting, machining, welding—are based on local syllabuses and lead to local examinations. The craft courses include mechanical engineering craft practice, electrical installation, mining mechanics, welding, motor vehicle mechanics work, carpentry and joinery, cabinetmaking and machine woodworking, brickwork, painting and decorating, plumbing, and agricultural mechanics. Students completing one of these vocational craft courses go directly into employment as apprentices. After 2 years they may qualify as "artisan." Some may later return to a Polytechnic to take an Advanced (Final) course in their trade.

The general technical course, which leads to City and Guilds of London Institute examinations, provides a grounding in mathematics and science with a technical bias to prepare students for subsequent technician courses at the Polytechnics and for specialized departmental inservice training with technical establishments or with the Army and Navy. The 4-year program consisting of the Pretechnical course and the general technical course is comparable to but narrower than the course of the secondary technical schools. It has been offered in the technical institutions because the secondary technical schools (from which many graduates go on to university courses) have not provided a sufficient number of candidates for post-secondary technical education.

Students completing the general technical courses and students from

secondary technical schools may be selected to enter post-Ordinary-Level technicians courses in electrical and mechanical engineering and construction. There are two types of such courses: technicians courses and Ordinary Technician Diploma (O.T.D.) courses.<sup>2</sup>

There are three technician courses, all 3 years in length: the Mechanical Engineering Technicians' course, the Electrical Engineering Technicians' course, and the Construction Technicians' Certificate course. Based on City and Guilds of London Institute syllabuses and leading to Institute awards, these are practical, terminal courses that prepare students to go directly into employment as technicians. The final Technician III certificates are comparable to the British Higher National Certificate.

There are two O.T.D. courses, each 2 years in length. They lead, respectively, to the following City and Guilds of London Institute awards: the Ordinary Technician Diploma in Mechanical and Electrical Engineering and the Ordinary Technician Diploma in Building and Civil Engineering. Both are comparable to the British Ordinary National Diploma. The Ordinary Technician Diploma in Mechanical and Electrical Engineering is the basic admission requirement for the 2-year higher diploma courses in mechanical and electrical engineering at the University of Science and Technology.<sup>3</sup> These lead to the University's diploma which is comparable to the British Higher National Diploma. Thus the Ordinary Technician Diploma course in mechanical and electrical engineering constitutes the first 2 years of a 4-year diploma program to prepare assistants to technologists. The higher diploma courses, which are not normally taught in universities, will presumably be transferred to the Polytechnics when they have adequate facilities to offer these courses.

The Tarkwa School of Mines gives a 3-year course in metalliferous mining engineering that is based on local syllabuses and leads to the Ministry of Education's Mining Engineering Diploma. Open to those who have C.C.E. Ordinary-Level passes (or the equivalent) in mathematics, physics, chemistry, and English and to selected Official Learners of the Mining Companies, this provides the training required for Mine Shift Boss and higher posts in the mining industry.

Commercial courses include the 3- and 4-year full-time post-Middle Form IV business studies courses, leading respectively to Royal Society of Arts and C.C.E. Ordinary-Level examinations; the 2-year full-time post-G.C.E. Ordinary-Level business studies course leading to R.S.A. exam-

<sup>2</sup> The Ordinary Technician Diploma (O.T.D.) courses replaced the Overseas Ordinary National Certificate courses of the City and Guilds of London Institute. The first O.T.D. course began in 1964-65. The last Ordinary National Certificate course ended in 1964-65.

<sup>3</sup> Holders of the Ordinary Technician Diploma (presumably in building) who also have three General Certificate of Education Advanced-Level passes may be admitted to the degree course in architecture of the University of Science and Technology (the B.Sc. Design course). Those who also have two Advanced-Level passes including one in mathematics may be admitted to the B.Sc. (Building Technology) course. Holders of the Ordinary Technician Diploma may also be selected to enter the university's Diploma in Physical Planning course.

inations; the 2-year part-time (Kumasi) post-Ordinary-Level courses in accountancy and secretaryship leading respectively to the Intermediate examinations of the Institute of Chartered Accountants, Ghana, and the Intermediate examinations of the British Chartered Institute of Secretaries; and other full-time and part-time courses.

Courses in institutional management, catering (professional cooking), and domestic subjects are also offered. The Institutional Management Course is a 3-year full-time post-Ordinary-Level program in large scale catering and housekeeping to prepare students for positions in educational institutions, hospitals, hotels, and industry or for positions as teachers of catering subjects. Enrollees take City and Guilds of London Institute and other external examinations at the end of the first and second years but a local examination at the end of the third. The final award is the Institutional Management Certificate in Institutional Housekeeping and Catering awarded by the Ministry of Education.

The two catering courses are (1) a 2-year full-time basic course in professional cookery that is given at post-middle or post-Ordinary Level to prepare trained cooks for any catering establishment and diet cooks for hospitals, and (2) a further 1-year specialist course in professional cookery to prepare those who have completed the basic course and have 2 years of experience for supervisory positions in catering establishments.

Since the 1963 reorganization of technical education the objective has been a clear division of these courses between the Technical Institutes and the Polytechnics. On the one hand the Technical Institutes are to offer the Pre-Technical course, the intermediate-level craft courses, the general technical courses, and the post-middle school business studies courses. On the other hand the Polytechnics are to admit only students who have completed vocational or general technical courses in the Technical Institutes and those who have passed appropriate subjects at Ordinary Level. The Polytechnics are to offer on a full-time basis only the Ordinary Technician Diploma, Technicians Certificate, and Advanced craft courses together with postsecondary domestic and business studies courses.

As of 1971-72, the transfer of post-middle school courses from the Polytechnics to the Technical Institutes was not yet complete. The Polytechnics no longer offered the Pre-Technical course except on a part-time basis, but still offered the 2-year general technical courses in engineering and building and intermediate-level craft courses, as well as the more advanced courses to which they are eventually to devote their efforts. All seven of the Technical Institutes offered the Pre-Technical course; five (Ho, Kpandu, Tamale, Sunyani, Asuansi) offered certain courses, one (Kpandu) the two general technical courses, and three (Ho, Kpandu, Sunyani) the 4-year business studies course.

A technical education system such as this—in which City and Guilds of London Institute (C.G.L.I.) courses designed originally as part-time programs for employees in industry in the United Kingdom are used exten-

sively for full-time courses—has been questioned on the grounds that the content of certain courses are irrelevant or provide for specializations not required in local conditions and that full-time courses provide more theoretical than practical instruction with the result that students emerge without the necessary practical ability. It is recognized in Ghana that some of the C.G.I.I. courses—catering, masonry, and dressmaking—do need revisions to relate the training more closely to local situations and needs.

#### *Technical Training Centers*

Established with external assistance, the two technical training centers, the Accra Technical Training Center and the Tema Textiles Center, provide training courses both for apprentices and for tradesmen in employment. Accra Technical Training Center, which opened in July 1966 as a joint Ghanaian-Canadian project, has offered a variety of training courses, including 6-month full-time preemployment courses in engineering and building trades; a 4-year "block release" training course for apprentices that consists of one 11-week session in each of the 4 years; 20-session evening courses for trade improvement; and 2- to 3-month "block release" upgrading courses for foremen or supervisors. The Tema Textiles Center, established as a joint Ghanaian-Japanese project, formerly gave a 2-year full-time preemployment course in textile technology and more recently has given day or "block release" courses.

#### *Technical Teacher-Training Institutions*

The two remaining technical institutions, the Mampong Technical Teachers Institute located at Mampong, Ashanti, and the Technical Teachers College, Kumasi, train teachers of technical subjects.

The Mampong Technical Teachers Institute (the former Mampong Junior Technical Institute, which began teacher training courses in 1960) gives the 3-year "Handicraft Certificate A" course. Following either the 2-year Pre-Technical course in a technical institute or the 1-year Pre-Technical course offered at the Mampong Institute itself, this course prepares teachers of metalwork, woodwork, and technical drawing for the continuation classes, the Pre-Technical course in the Technical Institutes, and the primary technical schools.

First established in 1960 as the Technical Teacher Training Centre at the Kumasi Polytechnic (then the Kumasi Technical Institute), which moved to the new college on the outskirts of Kumasi in June 1966, the Technical Teachers College, Kumasi, offers three courses to prepare teachers of technical or commercial subjects at the secondary level. Its technical teachers (or technical education) course, which leads to the Technical Teachers Certificate (Technical Education), is a 1-year program in education to prepare holders of a Higher Technician Diploma or an Advanced Craft certificate as technical teachers for the Technical



Institutes and the Polytechnics. Its advanced handicraft course, which leads to the Technical Teachers Certificate (Advanced Handicraft), is a 2-year program for those who have completed the 3-year Handicraft Certificate A teachers course at the Mampong Technical Teachers Institute and have had at least 2 years of teaching experience. It prepares handicraft teachers (teachers of woodwork, metalwork, and technical drawing) for the secondary technical schools. Some graduates have also gone to teach in the Pre-Technical course in technical institutions, the Mampong Technical Teachers Institute, continuation schools, and the National Service Corps.

The college's third course, the business education teachers course, is a 3-year post-G.C.E. Ordinary-Level program to train teachers of commercial subjects for secondary schools and technical institutions. Entry requirements are passes in 4 subjects, including English and mathematics, a General Certificate of Education Ordinary-Level or passes in 4 subjects in Royal Society of Arts (R.S.A.) Intermediate examinations. Regarded as a crash program covering work in 3 years which normally takes 4 years, the course includes both academic (including commercial) subjects and education and leads to R.S.A. Stage III (Advanced) examinations in three subjects, an internal examination in education, English and liberal studies, and a teaching practice examination. The final award for successful students is the Technical Teachers Certificate (in Business Education).<sup>4</sup>

<sup>4</sup> Under a proposal to establish an Institute of Technical Education at the University of Science and Technology, which was under consideration in 1972, the 1-year technical teachers course, the final year of the business education course, and the final year of the advanced handicraft course—all of which would be devoted solely to work in education—would be the responsibility of the institute. Other parts of the second and third courses would remain the responsibility of the Technical Education Division of the Ministry of Education.

## VI. UNIVERSITY EDUCATION

Ghana's already well-developed university system consists of three universities: The University of Ghana, located at Legon outside the capital, Accra; the University of Science and Technology, located at Kumasi; and the University of Cape Coast (University College of Cape Coast through 1970-71), located at Cape Coast approximately 100 miles west of Accra.

The University of Ghana was originally established as the University College of the Gold Coast in 1948. Renamed the University College of Ghana at independence in 1957, it became the independent University of Ghana in 1961.<sup>1</sup> The University of Science and Technology is the successor to the Kumasi College of Technology, established in October 1951 and opened in January 1952. It became an independent university under the name of the Kwame Nkrumah University of Science and Technology in 1961.<sup>2</sup> It was renamed the University of Science and Technology, Kumasi, after the coup of 1966. The University of Cape Coast first opened as the University College of Cape Coast in the fall of 1962. Reconstituted as the University College of Science Education in October 1964, it reverted to its original name, University College of Cape Coast, after the 1966 coup.<sup>3</sup> It remained in special relationship with the University of Ghana and offered courses leading to University of Ghana awards until the beginning of the 1971-72 academic year, when it became Ghana's third independent university.<sup>4</sup>

The University of Ghana has 11 faculties, schools, and institutes covering a wide range of fields. As its name indicates, the University of Science and Technology has been Ghana's technological institution of higher education although it is now beginning to branch out into other areas. Cape Coast has been a specialized institution charged, both by the 1967 decree establishing it as the University College of Cape Coast and by the 1971 act establishing it as the University of Cape Coast, primarily with responsibility for preparing teachers for the secondary schools, teacher-training colleges, Polytechnics, and Technical Institutes in Ghana.

<sup>1</sup> The University of Ghana Act, 1961 (Act 79) of Aug. 22, 1961.

<sup>2</sup> Kwame Nkrumah University of Science and Technology Act, 1961 (Act 83) of Aug. 22, 1961.

<sup>3</sup> It was incorporated by the University College of Cape Coast Decree of March 1967, which went into effect Oct. 1, 1966.

<sup>4</sup> The University of Cape Coast was established by The University of Cape Coast Act, 1971 (Act 390), which went into effect Oct. 1, 1971.

The largest of the three, the University of Ghana, had 2,530 students in 1971-72; the University of Science and Technology had 1,528; and the University of Cape Coast, 1,005. Together they had places for about 5,000 students. All are predominantly undergraduate and residential institutions.

The universities operate on an academic year that runs from late September or early October to late June or early July.

### **Background**

All very young institutions by world standards, the three universities already have a full and complex history.

Throughout the 1950's the then University College of the Gold Coast and the then Kumasi College of Technology provided all higher education in the country. In special relationship with the University of London, the University College offered courses leading to degrees of that university. By 1960 it had faculties of arts, social studies, physical sciences, biological sciences, and agriculture, and institutes of education and extramural studies. It offered courses leading to several London first degrees, master's degrees in arts and science, and a Postgraduate Certificate in Education, all under the scheme of special relationship.

By 1960 the Kumasi College of Technology—its teacher-training section (except for the art school) and commerce departments having been removed (to Winneba in 1958 and to Achimota in 1959, respectively)—had schools or departments of engineering (opened in 1952); pharmacy (1953); agriculture (1953); architecture, town planning, and building (1958); and art. In addition to courses (initiated in 1955) leading to University of London degrees in engineering, it offered various courses leading to examinations of British professional institutions or to college diplomas and also offered preliminary courses leading to the Higher School Certificate to prepare students for its own courses. As for several prior years, there were already in 1960 agricultural faculties or schools at both institutions—this has been the most obvious and most frequently commented upon duplication of facilities in Ghana's higher educational system.

Enrollment growth has been steady but not spectacular. In 1960-61 the University College of Ghana enrolled about 670 students and the Kumasi College of Technology some 500. The secondary schools were not turning out enough students qualified for higher education courses. Thus both institutions, well supported by government, had unfilled places for students.

#### *1961-66*

In December 1960, the Government of Ghana took the steps that foreshadowed the major reorganization and expansion of higher education that began in 1961. Having already proposed that the two existing institutions (the University College of Ghana and the Kumasi College of

Technology) be transformed into a single independent University of Ghana, and having already announced that a new university institution would be established at Cape Coast, it appointed an international Commission on University Education to advise it on university development in Ghana. Reporting early in 1961,<sup>5</sup> the commission recommended, in accordance with the most recent decision by the Government, that the two existing institutions should be reconstituted as separate independent universities awarding their own degrees; the commission also advised that the new Cape Coast institution should be a university college in special relationship with the University of Ghana. In its White Paper on the commission's report,<sup>6</sup> the Government stated its intention to implement these proposals by October 1, 1961. Legislation passed in August 1961<sup>7</sup> transformed the University College of Ghana into the University of Ghana and the Kumasi College of Technology into the Kwame Nkrumah University of Science and Technology. The new University College of Cape Coast opened in the fall of 1962 with a department of arts (transferred from Kumasi) and a department of science.

The new University of Ghana began with four faculties (Arts, Social Studies, Science, Agriculture) and three institutes including the new Institute of African Studies established at the beginning of 1961-62. A year later the Department of Law became a faculty; the former College of Administration, an autonomous institution at Achimota, was incorporated into the University as the School of Administration; and an Institute of Statistics was established. At the Kwame Nkrumah University of Science and Technology each of the five former departments or schools became faculties and a new Faculty of Science was established. Both universities added new departments as the years passed.

From 1961 on, both universities began to phase out all the old courses leading to University of London degrees and examinations of British professional institutions and some old diploma courses as well, and to introduce new first-degree courses leading to their own degrees, new diploma and certificate courses below the first-degree level, and new postgraduate degree and diploma courses.

During these years that followed the 1961 reorganization, the new universities achieved a remarkable growth in enrollment. At the University of Ghana enrollment almost tripled between 1961-62 (when fewer than 700 students were enrolled) and 1965-66 (when 2,000 were enrolled). The Kwame Nkrumah University doubled its enrollment during the same period, with most of the increase—from about 700 in 1961-62 to more

<sup>5</sup> Ghana. *Report of the Commission on University Education December 1960-January 1961*. Accra: Ministry of Information, Government Printing Department, 1961.

<sup>6</sup> Ghana. *Statement by the Government on the Report of the Commission on University Education December 1960-January 1961*. W.P. No. 5/61. Accra: Ministry of Information, Government Printing Department, 1961.

<sup>7</sup> See footnotes 1 and 2.

than 1,400 in 1965-66—occurring in 1964-65 and 1965-66. (Details on enrollments appear in part V.)

As indicated earlier on, in the years from 1961 through 1966 (as in previous years) the Government was financially very generous, giving the universities a high percentage of educational funds. And, generally speaking, during this period—in the absence of adequate oversight and coordination—each university was able to develop pretty much as it decided. At the same time, however, relations between the universities and the C.P.P. Government were deteriorating and becoming strained: the C.P.P. Government apparently felt the institutions were not contributing adequately to the country's needs or evidencing adequate loyalty to the Party, and the universities apparently came to feel that their organizational autonomy and academic freedom were being breached.

A major part of the story was the dramatic intervention by the President, to which reference has already been made. In mid-1964 President Nkrumah, by Presidential Command, assigned specific areas of study to each of the three institutions. The Kwame Nkrumah University of Science and Technology was assigned responsibility for degree courses in engineering, applied science, and technology; the University of Ghana was given responsibility for degree courses in pure science and in the arts and humanities; and the University College was to be responsible for training science teachers for the secondary schools and Polytechnics and was to serve as a national center for research and teaching in education. The college was reconstituted in October 1964 as the University College of Science Education. The Institute and Department of Education at the University of Ghana and the Science Research Unit at Kumasi were transferred to Cape Coast, and, according to statements made by Government leaders in early 1965, students in courses in pure science and arts at the universities in Kumasi and Cape Coast were transferred to the University of Ghana. The former Faculty of Science at Kumasi (including mathematics, chemistry, botany, physics, and zoology) was replaced by Departments of Applied Biochemistry, Applied Physics, and Chemical Technology, all of which were to provide a B.Sc. (technology) course, and by a Department of Science, which was to provide the preliminary science course and the first 2 years of the degree course.

The decision seems to have been more than a mere effort to eliminate duplication and thus achieve more economic use of the resources available. It seems to have grown out of a deep dissatisfaction with the contribution the institutions were making toward meeting national development goals and a conviction that certain fields of study would receive adequate attention and that development goals would be met only if Ghana had flexible single-purpose higher institutions, each of which could, of course, be dealt with individually by the Government. Speaking at the Congregation of the University of Ghana in March 1965—a year before

the coup—the then Minister of Education, who was also chairman of the University Council, seemed to be explaining the action along these lines:

Government is very much exercised by the continued imbalance between Arts and Science students in this University and elsewhere in this country . . . it is my conviction that this University can do much more in helping to solve this vital problem on which depends the success of the Government's policy to carry out in our country its programme of socialist reconstruction.

As part of this policy, the Government has decided to undertake a review of the various areas of specialisation by the Universities, so as to achieve a more rational and economic use of our human and educational resources. We have, therefore, had transferred from this University, for example, the Institute and Department of Education to help strengthen the University College of Science Education in Cape Coast and to bring from Cape Coast and Kumasi to this place students taking courses in the pure sciences and the humanities . . . . I should like to reiterate . . . some of the compelling reasons behind this policy of rationalising our higher institutions.

In general, the need for national planning in every country in the world is reinforcing the need for separate institutes for both training and research. Clearly in the case of a socialist country where planning is basic to the structure of the society, institutes of higher education must be flexible and responsive to planned social needs. Where these do not exist or where they exist as low priority departments in established Universities, there are strong grounds for setting up separate or mono-faculty institutions in order to produce a rate of growth which is related to the overall plan . . . . The needs of our society are obvious; the existence of our Seven-Year Development Plan is well known. Consequently our higher institutions must accept this challenge. In the words of the University Commission on Higher Education in Ghana: ' . . . Our higher institutions should be responsive to the sense of urgency that exists in a developing nation; to use their resources imaginatively and effectively to contribute to the economy and social progress; to interpret their studies for the benefit of the people and to learn from their problems.' Each higher institution must . . . have a claim to be considered in relation to its special circumstances; and the re-classifying of higher institutions for some purposes is necessary in our present-day conditions. This is in accord with our clear socialist objectives and ensures equal opportunity for our young in the disciplines for which they can best be suited. . . .

For Government . . . to frame an overall state policy in higher education by way of assigning areas of study to our Universities to achieve our stated goals in the interest of our people, is no evidence of any attack on academic freedom; on the contrary, it is to establish academic freedom in other fields of disciplines.<sup>6</sup>

On the same occasion, the vice chancellor of the University of Ghana said:

. . . no one at any of the universities would contest the Government's right to frame over-all State policy, in the sphere of higher education as in other spheres. We all agree that it is a legitimate concern of the Government to consider and ultimately make decisions on the assignment of major areas of study to the different institutions of higher education in Ghana. But if University

<sup>6</sup> "Address by the Chairman of the University Council, Mr. Kwaku Boateng, Minister of Education, to the Congregation on 27th March, 1965." *Annual Report by the Vice-Chancellor for 1964-65*. University of Ghana. pp. 87-88.

autonomy means anything at all, the universities should surely be consulted about such decisions and their views should receive careful consideration even though they may not ultimately prevail. Unfortunately the history of the present case shows that it is possible for the structure of the University to be changed without the opinion of the appropriate University organs being accorded the weight they deserve under the statutes."

The vice chancellor added that the University "was not in any way consulted in advance" about the decision to transfer the University's Institute of Education at Legon to Cape Coast.

He also said "... there are clear signs that influential elements in the community wish to turn the University from a centre of critical and independent thought into something quite different and that they are making some progress in the direction they desire." He referred to the setting up the previous November of a committee "... with powers to inspect publications in bookshops and in the libraries of schools, colleges and universities and ensure the removal from the country of all publications which do not reflect the Party's ideology or are antagonistic to its ideals," and also to the fact that at about the same time "... certain speakers and writers, enjoying a considerable measure of public favour began to incite our students to 'watch out for' and 'expose' those of their teachers in whom they might think they detected unsuitable ideological tendencies."<sup>10</sup>

In addition to assigning an area of responsibility to each institution in 1964, the Government decided early in 1965 to establish a new University College of Agriculture at Somanya, at an estimated cost of more than £G8 million, and to remove the existing Faculties of Agriculture from the two universities and integrate them into the new institution. A principal designate and some professors were actually appointed before the coup of 1966. Apparently the work of both of the existing agricultural faculties suffered considerably as a result of this decision and related restrictions placed on their programs.<sup>11</sup> In October 1965 a Cabinet directive made the former Faculty of Art of the Kwame Nkrumah University of Science and Technology an autonomous College of Art with its own council and separate Government grant. The college was to have been transferred to a site near Tema just east of Accra.

<sup>9</sup> "Vice-Chancellor's Address to Congregation on 27th March, 1965." *Annual Report by the Vice-Chancellor for 1964-65*. University of Ghana. pp. 103-4.

<sup>10</sup> *Ibid.*, p. 101.

<sup>11</sup> Shortly after the coup of 1966 the vice chancellor of the University of Ghana declared:

The Faculty of Agriculture is one of the faculties which has perhaps suffered most from the capricious policies of the previous regime. Of the 2,000 students in the University, only 42 are doing agriculture . . . The projected University College of Agriculture and such restrictions as were placed on the teaching curriculum, among others, have contributed to frustrating the work of this Faculty.

"Vice-Chancellor's Address to Congregation 26th March, 1966." *Annual Report by the Vice-Chancellor for 1965-66*. University of Ghana. p. 104.

In the meantime the Government had established Ghana's first medical school. In 1962 it had made arrangements to receive from the U.S. Government a loan for construction and other assistance in establishing a medical school that would have been a faculty of the University of Ghana. But the following year it decided to terminate these arrangements and to establish a medical school from its own resources. Planning had to start all over again with two classes of students (the first had entered in 1962) already enrolled in a 2-year premedical course at the University. The University's vice chancellor was later to state:

Politics and personalities played an unenviable role in the chequered fortunes of the Medical School and eventually the then Government decided that the Medical School should be established independently of the University of Ghana and award its own medical degrees and diplomas.<sup>12</sup>

Thus, in difficult circumstances, relying mainly on Ghanaian resources in men and money, and using limited facilities at Korle Bu Hospital, Accra, the new Ghana Medical School opened as an independent institution in October 1964, and the first class (those who entered their premedical course in 1962) began their medical program. At this time the school was under the administration of the Ministry of Health but very soon, in December 1964, it was transferred to the National Council for Higher Education and Research. For some months it had no connection with the university. "It was however obvious to any detached medical educator that such a complete divorce of the Medical School from the University was neither in the best interests of medicine nor of higher education in the Country."<sup>13</sup> In 1965, it was brought into a scheme of "special relationship" with the University of Ghana under which the university would award its degrees to students who successfully completed their course in the medical school.

#### *After 1966*

After the change of government in 1966, the new National Liberation Council reversed certain decisions concerning the organization of higher education made by the Nkrumah government during its last years in power. At the University of Science and Technology (which had, of course, been retained after the coup) the two former faculties affected by the reorganization of 1964 and 1965 were soon restored to their original status. At the beginning of academic year 1966-67, the College of Art, separated from the University in 1965, became once again a faculty of the university, its administration integrated with that of the university while its

<sup>12</sup> "Vice-Chancellor's Address at Special Congregation for the First Graduates of the Ghana Medical School." *Annual Report by the Vice-Chancellor for 1969-70*. University of Ghana, p. 8.

<sup>13</sup> *Ibid.*



considerable financial autonomy continued. The Faculty of Science was reconstituted through the amalgamation of the four departments set up in its place in 1964.

By March 1967, the Education Review Committee had recommended that the Ghana Medical School, an autonomous institution in special relationship with the University of Ghana, should be made a faculty of that university, while retaining its own separate budget. The Government had accepted this recommendation, the school had welcomed it, and the vice chancellor of the University of Ghana was able to announce on March 18, 1967, that the Ghana Medical School was to become the School of Medicine of the University of Ghana.<sup>11</sup> The school was incorporated into the university, with the status of a faculty, in October 1969.

The transfer of the University of Ghana's Department and Institute of Education (at Legon) to the University College of Cape Coast was allowed to stand. The latter reverted after the coup to its original name, the University College of Cape Coast. The 1967 decree of the National Liberation Council, which legally established the University College of Cape Coast, stated that its primary purpose was to produce graduate teachers in arts and science subjects for secondary schools and other institutions. The University College was thus to continue in its special role as an institution of teacher education.

The former regime's proposal to establish a new University College of Agriculture was "suspended indefinitely."<sup>12</sup> The post-coup Education Review Committee agreed that the "decision, if it had been implemented, would have done a grave disservice to Ghana," and strongly recommended that the proposal be "completely abandoned."<sup>13</sup>

Quite different from the previous one, the period since the coup of 1966 has been one in which the Government has held down expenditures on higher education and the universities have not received all they requested; in which growth in physical facilities and student numbers has been small; and in which efforts have been made toward achieving a greater measure of continuing governmental oversight and coordination of the universities' activities. And, evidently, it has also been one in which the universities have been much more responsive than in the past to governmental and national needs and government-university relations have greatly improved. The University of Ghana established the goal of having 40 percent of its degree students in scientific programs. Both the University of Ghana and the University of Science and Technology introduced, evidently at Government request, new diploma courses to train much needed middle-level personnel

<sup>11</sup> "Vice-Chancellor's Address," *Annual Report by the Vice-Chancellor for 1966-67*, University of Ghana, p. 131. (The address was given at the Congregation of the University, Mar. 18, 1967).

<sup>12</sup> Republic of Ghana, Ministry of Education, *Education Report 1963-67*, Accra-Tema: Ghana Publishing Corporation, 1968, p. 44.

<sup>13</sup> Republic of Ghana, *Report of the Education Review Committee . . .* Accra-Tema: Ministry of Information State Publishing Corporation, 1968, p. 99.

in such fields as agriculture, home science extension, pharmacy, and statistics. All three institutions have undertaken research projects obviously relevant to the country's development.

### Faculties, Schools, and Institutes

#### *The University of Ghana*

Today the three institutions together constitute a complex and well-developed higher education system. The largest, the University of Ghana, has Faculties of Agriculture, Arts, Law, Social Studies, and Science; Schools of Medicine and Administration; and Institutes of African Studies, Adult Education, Journalism and Communication Studies,<sup>17</sup> and Statistical, Social, and Economic Research. Also established at the university is the new Regional Institute for Population Studies, which was set up jointly by the Government of Ghana and the United Nations to serve English-speaking African countries through research, training, and advisory programs in demography and related fields.<sup>18</sup>

The university's faculties consist of 28 departments grouped as follows:

Agriculture: Agricultural Economics and Farm Management,<sup>19</sup> Animal Science,<sup>20</sup> Crop Science,<sup>21</sup> Home Science

Arts: Classics, English, Linguistics, Modern Languages, Philosophy, Study of Religions

Law: Law

Science: Biochemistry,<sup>22</sup> Botany, Chemistry, Geology, Mathematics, Nutrition and Food Science, Physics, Zoology

Social Studies: Archaeology, Economics, Geography, History, Library Studies, Political Science, Post-Basic Nursing, Psychology, Sociology.

As the list shows, the Faculty of Agriculture includes a Department of Home Science and offers courses in both agriculture and home science. In addition to its teaching programs it operates—as it has since the 1950's

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<sup>17</sup> The establishment of this institute was announced in January 1972, and it was to begin operating in October 1972. *University of Ghana Reporter*, 11:8:116, Jan. 28, 1972; and 11:14:213, Apr. 28, 1972.

<sup>18</sup> *University of Ghana Reporter*, 10:23:596, May 21, 1971; 11:14:213, Apr. 28, 1972; and 11:16:220, May 12, 1972. The institute began operating and took in its first 15 students early in 1972.

<sup>19</sup> Includes 3 divisions: Agricultural economics, agricultural and biological engineering, and agricultural extension.

<sup>20</sup> Includes animal health, nutrition, and production.

<sup>21</sup> Includes 2 divisions: Soils and crops.

<sup>22</sup> The former Department of Biochemistry, Nutrition, and Food Science was divided into a Department of Nutrition and Food Science and a Department of Biochemistry (including the former biochemistry department of the Medical School) as of Oct. 1, 1971. The new Department of Biochemistry, although established within the Faculties of Science, Medicine, and Agriculture, was placed for administrative purposes under the Faculty of Science. The Department of Nutrition and Food Science was established within the Faculties of Science and Agriculture.

—three research stations located at Nungua, Kpong, and Kade.<sup>23</sup> In addition to the usual departments, the Faculty of Social Studies has a Department of Library Studies, which offers a postgraduate course; a Department of Post-Basic Nursing, which trains nurses for supervisory and teaching positions in nursing; and, within its Department of Sociology, a social administration unit, which trains social welfare personnel.

Not appearing on the list is the new Language Research Centre of the Faculty of Arts that (although established in October 1970) began operating in 1971-72. Its purpose is not only to deal with one of the University's own problems—the inability of some university students to use the English language with adequate efficiency—by providing remedial instruction but also, through research and other activities, to assist other levels of the educational system. In 1971-72 it organized a test for almost all freshmen, followed up with a remedial English course for some 80 freshmen, and gave intensive training courses to two groups of language organizers who then went out to train elementary school teachers in teaching Ghanaian languages.

An integral part of the university, operating on earmarked Government grants, the School of Administration offers courses not only in public administration, business administration, and accounting to train individuals for positions in central and local government and commerce and industry but in hospital administration as well.

Formerly the Ghana Medical School, an independent institution in special relation with the University of Ghana, the School of Medicine became a part of the university in October 1969. With the status of a faculty, it has its own administration, which gives it greater freedom of action, and it operates on an earmarked grant from the Government. Pending availability of funds for construction of the proposed medical center on a site south of the university, it is still housed at Korle Bu, Accra, where it uses Korle Bu Hospital for clinical instruction and where its facilities limit the intake to 60 students a year.

Established in 1961, the Institute of African Studies conducts research in African languages and literature, arts, history, and society and in addition organizes introductory courses in African Studies for first year students at the three universities, gives courses leading to an M.A. in African Studies, and offers various subdegree courses in the performing arts.

The Institute of Statistical, Social, and Economic Research (I.S.S.E.R.), established in 1969, is the former Institute of Statistics, renamed, enlarged,

<sup>23</sup> Nungua Research Station, 8 miles from Accra, conducts research in animal breeding, particularly development of dairy cattle by crossbreeding local breeds with others, and also in animal nutrition, veterinary medicine, and pasture improvement. University agriculture students receive their long vacation practical training here. Kpong Research Station, 50 miles north of Accra, conducts research in mechanized irrigation agriculture on the Accra Plains and is running a pilot irrigation settlement scheme emphasizing rice production. Kade Research Station, 70 miles northwest of Accra, concentrates on perennial and other forest zone crops.

and reorganized to carry out a broader mandate. The Institute of Statistics, which opened in 1962, had conducted research and provided advisory services in statistics and had trained statisticians—first (from October 1964) at the postgraduate level and then, following the October 1966 merger of the United Nations Statistical Center with the Institute, at the subdegree certificate level as well. The urgent need for socioeconomic research led the university, in consultation with the Government, to enlarge the institute so that it could undertake, in addition to its former functions, interdisciplinary research on social and economic problems bearing on Ghana's development and to give it its present name. The institute's broad areas of research have included factors of agricultural growth and cocoa economics. It continues to offer both postgraduate and subdegree level courses in statistics and to serve as a West African center for training both middle- and high-level statisticians.

The Institute of Adult Education was originally established in 1949 as the Department of Extra-Mural Studies of the University College of the Gold Coast. Retaining this name, it remained a part of the University College and then of the university until July 1962, when it was transformed by President Nkrumah into an enlarged Institute of Public Education and largely taken out of the University's control. In 1966, after the coup, it was renamed and reorganized as the Institute of Adult Education to carry out the extramural adult education activities of the University of Ghana.

In addition to short residential courses and public lectures, it has given various part-time courses for working adults at the Accra, Kumasi, Sekondi-Takoradi, and Tamale Workers College and other facilities throughout the country. These have included (1) General Certificate of Education Ordinary- and Advanced-Level courses and nonexaminable courses in liberal studies throughout the country, (2) vocational and professional courses at the Workers Colleges and a few other centers, and (3) part-time courses for the degrees in law, administration, and arts of the University of Ghana at the Accra Workers College. In 1970-71 it inaugurated an experimental agricultural extension service in the Ho area and its first correspondence education program (a G.C.E. course). As of 1971, approximately 4,000 were taking part-time or correspondence courses. The institute also has an Adult Learning Research Unit, established in 1968, which conducts research into its own program and Ghana's adult education needs. Having performed its third function—teaching of its own specialization—only sporadically through brief training courses, the institute hoped to introduce an internal university diploma course in adult education in 1973-74.

#### *The University of Science and Technology*

From its reorganization after the 1966 coup (at the beginning of the 1966-67 academic year) until the beginning of the 1971-72 academic year,

the University of Science and Technology had six full faculties—of Agriculture, Architecture, Art, Engineering, Pharmacy, and Science—and also a Department of Liberal and Social Studies that provided service lectures in languages, social sciences, and law for other faculties. This department was replaced in October 1971 by the new Faculty of Social Sciences, established both to offer its own degree courses and to strengthen the support the old department gave to the other faculties.

The seven faculties consist of the following departments:

- Agriculture: Agricultural Economics and Farm Management, Agricultural Engineering and Mechanization, Animal Production, Crop Production, Horticulture.
- Architecture: Architecture, Building Technology, Planning, Housing and Planning Research.
- Art: Painting and Sculpture, Industrial Art, Design and General Art Studies.<sup>24</sup>
- Engineering: Civil Engineering, Mechanical Engineering, Electrical and Electronic Engineering, Geodetic Engineering.
- Pharmacy: Pharmaceutical Chemistry, Pharmaceutics, Pharmacology, Pharmacognosy.
- Science: Biochemistry, Biological Sciences, Chemistry and Chemical Technology, Mathematics, Physics.
- Social Sciences: Economic and Industrial Management, General and African Studies, Land Economy and Estate Management, Languages.

#### *The University of Cape Coast*

The University of Cape Coast is organized in three faculties, each responsible for providing all courses within its field. The faculties, with their departments and schools, are as follows:

- Arts: School of Languages and Literature, consisting of Departments of Classics, English, and French; School of Social Studies, consisting of Departments of Economics, Geography, History, and Sociology; and the Social Studies Project.
- Science: Departments of Botany, Chemistry, Mathematics, Physics, and Zoology.
- Education: School of Education; Departments of Advanced Study of Education, Curriculum Development and Information Systems, Education, and Physical Education; Center for Educational Planning and Research.

The School of Education is a unique unit in that it conducts external examinations outside the university at three teacher-training colleges (The Advanced Teacher Training College, Winneba, The Specialist Teacher Training College, Winneba, and The Bagabaga Training College) and reviews the syllabuses for these courses. It also has provided a library service for training colleges in the area and has organized inservice programs for teachers.

<sup>24</sup> From October 1972. Previous departments: Painting, Sculpture and Design; Industrial Arts; Art Education.

## Staff

As of 1971-72 the University of Ghana (at Legon) had 490 teaching and senior administrative staff members holding the rank of lecturer or higher. (The statistics do not show the total teaching staff.) The university at Kumasi had a total teaching staff of 298 in 1972-73 and that at Cape Coast one of 160 in 1970-71.

According to figures presented in the 1970 Vick Committee Report, the ratio of the number of students to the number of academic staff members with the rank of assistant lecturer and above during the period from 1963-64 through 1968-69 ranged between 4.5 and 9.9 at Cape Coast, between 6.3 and 8.5 at Kumasi, and between 6.8 and 8.5 in the faculties at Legon.<sup>25</sup> In 1972-73 the ratio between students and *total* teaching staff was 5.9 to 1 at Kumasi and was probably about the same at Cape Coast. At Legon the ratio between students and academic and senior administrative staff members holding the rank of lecturer and above was about 5.2 to 1 in 1971-72.

Ghana's universities are considerably less dependent upon expatriate staff than a number of other universities in middle Africa. In 1971-72, 330, or 67 percent, of the University of Ghana's academic and senior administrative staff members holding the rank of lecturer or higher were Ghanaians, and exactly half of the 56 heads of departments, professors, and associate professors were also Ghanaians. At Kumasi the following year (1972-73) 166—or 71 percent—of the 234 members of the teaching staff with the rank of lecturer or higher and 229—or 77 percent—of the total teaching staff of 298 were Ghanaians. Only 13 of the 28 professors and associate professors were Ghanaians, however. At Cape Coast in 1970-71, Ghanaians made up about 58 percent both of the teaching staff of 123 holding the rank of lecturer or higher and of the total teaching staff of 160. But only 8 of the 21 senior lecturers and professors were Ghanaians.

## Programs of Study

After they were established as independent universities in 1961, the universities at Legon and Kumasi phased out their old programs leading to University of London degrees and examinations of professional institutions in the United Kingdom and some diploma programs as well, and introduced new courses leading to their own degrees. As time went on there was a tendency to introduce new specialized "honours" degree programs either in addition to or in place of the original ones. Diploma programs training middle-level personnel in scientific fields did not receive heavy emphasis. Preliminary courses preparing students for degree courses, on the

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<sup>25</sup> *Report of the Ghana Universities Visiting Committee 1969*. Report submitted to the Prime Minister of Ghana by F. Arthur Vick, Chairman, May 1970. pp. 53, 68, 78.

other hand, claimed many student places in the universities, particularly at Kumasi and Cape Coast.

Since the coup of 1966, Legon and Kumasi have introduced, apparently at Government request, a number of new diploma programs in such fields as agriculture, home science extension, pharmacy, statistics, and accounting in order to train much needed subprofessional personnel. Preliminary programs have been all but eliminated at Kumasi. The University of Ghana has decided to introduce a single program to replace its general and highly specialized honours degree programs in the nonscientific fields. Elsewhere the old trend toward specialized degree courses has continued.

### *Types of Programs*

Today the three universities as a group offer courses in a wide range of fields and at four different levels: First degree, postgraduate, subdegree diploma and certificate, and preliminary or predegree. Every faculty or school of the three universities offers one or more first degree courses, and all three institutions also give postgraduate degree and/or diploma and certificate courses. The University of Ghana and the University of Science and Technology offer diploma and certificate courses below first degree level, and these are available in considerable number in a variety of fields. Cape Coast and Kumasi offer preliminary or predegree courses—but to a far more limited extent than in the past.

A discussion of certain general characteristics of the first three levels follows.

#### 1. FIRST DEGREE

*Entry requirements.*—All first degree programs have characteristics that clearly reflect their British model. One of these is their high entry level. While some countries in former British Africa have instituted new 4-year degree courses with G.C.E. Ordinary-Level entrance requirements, Ghana has consistently maintained the entry level to first degree courses proper at all three of her higher educational institutions at Advanced- rather than at Ordinary-Level. And the Advanced-Level requirements have become stiffer as the years have passed.

The entry requirements for first degree courses have consisted of (1) the University's *minimum* entry requirements for all its degree courses and (2) additional requirements concerning the subjects to be passed and the level at which they should be passed that are established by the faculty or department concerned for each degree course.

Generally speaking, the *minimum* degree entry requirements are passes in 5 subjects, including English language, in General Certificate of Education examinations (or the equivalent), of which either 2 (University of Cape Coast and University of Science and Technology) or 3 (University of Ghana) must be passes at Advanced-Level.

The University of Ghana, which previously required two Advanced-Level passes, raised its minimum admission requirements in 1970-71.<sup>26</sup> Since then it has required (1) three Advanced-Level passes (out of the five passes), one of which must be Grade D or better,<sup>27</sup> and (2) a pass in the General Paper set by the West African Examinations Council for Advanced-Level candidates.

The minimum requirements of the University of Science and Technology are, as they have been since the university was established, that two of the five passes must be Advanced-Level. In fact, however, every one of its faculties except that of Art requires three Advanced-Level passes in specified subjects.

The minimum requirements of the University of Cape Coast are that, of the five passes, two must be Advanced-Level and of Grade D or better.

*The British model.*—The Education Review Committee, which reported after the 1966 coup, stated: "It is true that on the whole" the teaching programs and the teaching methods of the universities "have been fashioned on traditional British lines."<sup>28</sup> The Universities have made certain changes in these programs to meet Ghana's special needs. A first-year course in African Studies is required of all first degree students. They must pass an examination in the subject before obtaining their degrees.

And, as the Education Review Committee stated:

In important respects a great deal has been done to give the content in most subjects a sufficiently African orientation to make them relevant to local conditions without becoming parochial. It is a fair question to raise, however, whether the organization of certain courses, based closely on the systems inherited from British universities, is in fact the best to meet local needs.<sup>29</sup>

At the University of Science and Technology, students in various degree programs must spend their three long vacations receiving practical training in industry. This is a required integral part of their courses. At the University of Ghana, vacation training for some students began in 1971.

*Length of programs.*—Except for the medical degree (M.B., Ch.B), which usually requires 6 years, all first degrees require 3 or 4 years of

<sup>26</sup> Earlier, at the beginning of 1967-68, the university raised its minimum requirements slightly by requiring that at least one of the two Advanced-Level passes be above Grade E (the lowest passing mark). In 1969-70 it added to its minimum requirements a pass in the General Paper set by the West African Examinations Council.

<sup>27</sup> In exceptional cases, individuals who have taken 3 Advanced-Level subjects in the same examination and obtained 2 Advanced-Level passes with a grade of C or better may be considered for admission.

The average grades of students admitted has been considerably higher than the requirements suggest. The average grade of freshmen admitted in 1970-71 was 3 D's and that of freshmen admitted in 1971-72, 2 C's and 1 D. *University of Ghana Reporter*, 11:4:47, Nov. 19, 1971; and 11:14:211, Apr. 28, 1972.

<sup>28</sup> Republic of Ghana. *Report of the Education Review Committee*. . . loc. cit. p. 92.

<sup>29</sup> *Ibid.* p. 93.



study<sup>30</sup> after the student meets the Advanced-Level degree admission requirements. All University of Ghana first degrees other than the medical degree and two other degrees (the B. Sc. Honours and the B. Sc. (Honours) Agriculture) and all University of Cape Coast first degrees other than the B. Sc. Honours (Education) require 3 years. All the first degrees of the University of Science and Technology, except for the new B.A. (Social Sciences), require 4.

*Examinations.*—The student's progress depends to a large extent on his performance in the very important end-of-year examinations. At the University of Ghana, for example, students in many programs take the First University Examination in their subject or field at the end of the first year and the different parts of the final degree examination at the end of the subsequent years of their course. At Kumasi students take university examinations at the end of the first, third, and fourth year and progress or faculty examinations at the end of the second.

*General and honours programs.*—Until the beginning of the academic year 1972-73, when the University of Ghana introduced a new first degree structure in the "humanities" (arts, social studies, law, administration), the first degrees awarded by Ghana's universities were of two basic types: General and honours. Since then, the degrees toward which students have been working have fallen into three major categories: General degrees, honours degrees, and degrees that are neither honours nor general.

The difference between general and honours degrees lies in the type of program leading to the degree (not in the quality of the individual student's performance). Honours degree courses provide for a greater degree of specialization—for studying one subject (or, in a few cases, two) in greater depth or to a higher level—than do general degree courses.

General degree courses are 3 years in length. Most have a basic 4-3-3, 3-3-3, or 3-2-2 structure: The student studies three or four subjects (plus African Studies) in the first year and three in the second and third; or three subjects (plus African Studies) in the first year and two in the second and third. Among the general degrees are the B.A. General (3-3-3), which is being phased out, the B. Sc. General (3-2-2) and the B. Sc. (Home Science) General of the University of Ghana; the B. Sc. General (Education) (4-3-3) and the B.A. General (Education) (3-3-3) of the University of Cape Coast. The general degrees (except in home science) are awarded in two or three subjects.

The honours degree course structures vary considerably, but in every case the honours degree student concentrates on a single major subject (or in a few cases on a single major accompanied by a subsidiary subject) or on two related major subjects, at least during the latter part of his pro-

<sup>30</sup> The university academic year, which runs from late September or early October to late June or early July, consists of 3 terms (Michaelmas, Lent, Trinity), which together usually cover 31 or more weeks.

gram. He studies his subject or subjects to a higher (honours) level than the student taking the same subject or subjects in a greater degree program. Honours degrees include all the University of Science and Technology's *current* first degrees except for the new B.A. (Social Sciences); the University of Ghana's B.A. Honours, B. Sc. Economics, LL.B. (all three are being phased out), B. Sc. Honours, and B. Sc. (Honours) Agriculture; and the University of Cape Coast's B. Sc. Honours (Education) and B. Ed.

The program for the new B.A. of the University of Ghana that is to replace the existing general and honours degrees in the "humanities"—B.A. General, B.A. Honours, LL.B., B. Sc. Economics, B. Sc. (Administration)—has a 3-2-2 (or 1) structure intended to provide both range and depth.

Regardless of the type of course—general or honours or new B.A.—the student at one of Ghana's universities takes what is, by American standards, a highly specialized program consisting of a limited range of subjects.

*Classification of degrees.*—On the basis of an individual's performance in the degree course, his degree is awarded in one of three classes. University of Science and Technology degrees may be awarded either "with honours," i.e., as First Class Honours, Second Class Honours (Upper Division), or Second Class Honours (Lower Division) degrees; or without honours: i.e., as pass degrees. Since October 1967<sup>21</sup> the University of Ghana's general and honours degrees have been awarded in the following classes: First Class, Second Class, (Upper Division), (Lower Division), Third Class. Its new B.A. degree is also to be awarded in classes. Students who obtain a First or Second Class are to be awarded the degree with "honours." All others are to be given "pass" degrees. Thus, a student may earn an honours degree (so called because of the type of course) but one which is, because of his performance, a degree awarded without honours or he may earn a degree that is not an honours degree (not a degree awarded after an honours type of course) but one that (on the basis of his performance) is awarded with honours.

## 2. POSTGRADUATE

Most of the postgraduate programs lead to various master's degrees and various postgraduate diplomas and certificates. Candidates for the Ph. D., which usually requires 3 years, have been rare. The University of Ghana had awarded four Ph. D.'s by the end of 1971 and the University of Science and Technology admitted its first Ph. D. candidate in 1972-73.

An approved first degree in an approved subject or field is, of course, required for admission to each of the master's, diploma, and certificate

<sup>21</sup> Formerly certain general degrees were designated as follows: First division, second division (upper or lower), third division.

courses, and in some cases the degree must be an honours degree of high classification.

Offered in various subjects at the University of Ghana and in all but one of the Kumasi faculties, master's degree courses consist of research, a course of instruction, or a combination of the two. The University of Ghana M. Sc. and M. Sc. Agriculture courses are usually 1 year in length for holders of an honours degree and 2 for holders of a general degree. All other master's degrees, except one at Kumasi, require 2 years.

Postgraduate diploma or certificate courses, which have been offered by all three universities, are 1 or 2 years in length and evidently consist of either a course of instruction or such a course and research or project work.

At Kumasi there is now a clear distinction between the two types of postgraduate programs. The present master's degree programs are of an academic nature and are not designed to give merely a professional qualification. They are normally open only to those with an honours degree of high classification—first class or second class (upper division) honours. Postgraduate diploma programs, on the other hand, are designed to give professional or special training and are apparently open to graduates whose degrees are not as high as the first class or second class (upper division) honours degree.

### 3. SUBDEGREE DIPLOMA AND CERTIFICATE

The University of Ghana and the University of Science and Technology together offer a large number of subdegree level diploma and certificate courses in a variety of fields. These vary greatly in length and admission requirements. A number of them are designed specifically to train employees for government agencies. Several have been introduced since the 1966 coup, presumably at the Government's request.

Diploma courses are 2 or 3 years in length. The entry requirements are lower than those for degree courses. At the University of Science and Technology the requirements are either a School Certificate, one Advanced-Level pass in addition to Ordinary-Level passes, or some other acceptable qualification such as a technical or other certificate earned at post-Ordinary-Level. At the University of Ghana requirements vary from course to course. The range includes completion of a post-Ordinary-Level course, Ordinary-Level passes, and a certificate in a particular subject earned following a course having less than Ordinary-Level entry requirements.

Certificate courses are 1 or 2 years in length, and their entry requirements are usually lower than those for diploma courses. Some require sponsorship by the employer or an entrance examination but no formal academic qualification, others a few Ordinary-Level passes.

#### *Programs by Faculty*

Table 10 lists the courses that were being offered by each of the three

**Table 10.—First degrees, postgraduate degrees, diplomas and certificates, and subdegree level diplomas and certificates of the universities of Ghana and number of years of study required for each, by university and faculty, school, or institute offering courses: 1972-73<sup>1</sup>**

University and faculty, school, or institute	First degrees		Postgraduate degrees, diplomas, certificates		Subdegree diplomas and certificates	
	Title	Years of study <sup>2</sup>	Title	Years of study	Title	Years of study <sup>3</sup>
<b>University of Ghana</b>						
Administration, School of	B.A. <sup>4</sup>	3			Certificate in Accounting	2
	B. Sc. (Administration) <sup>5</sup>	3			Diploma in Hospital Administration	3
					Diploma in Public Administration	2
African Studies, Institute of			M.A. in African Studies	2	Diploma in African Music	2
					Diploma in Dance	3
					Diploma in Drama and Theatre Studies	3
					General Diploma in Music	3
Agriculture	B. Sc. (Home Science) General	3			Diploma in Home Science Extension	2
	B. Sc. (Honours) Agriculture	4	M. Sc. Agriculture	1	or National Diploma in Agriculture	2
				2 <sup>6</sup>	Special Diploma in General Agriculture	1
Arts	B.A. <sup>4</sup>	3	M.A.	2	Licentiate in the Study of Religions	2
	B.A. General <sup>5</sup>	3				
	B.A. Honours <sup>5,7</sup>	3				
Law	B.A. <sup>4</sup>	3	Professional Certificate in Law	2		
	LL.B. <sup>8</sup>	3	Master of Laws			
Medicine	M.B., Ch.B.	6				
Science	B. Sc. General	3	M. Sc.	1		
	B. Sc. Honours	1 <sup>9</sup>		or 2 <sup>6</sup>		
Social Studies	B.A. <sup>4</sup>	3	M.A.	2	Diploma in Nursing Education	2
	B.A. General <sup>5</sup>	3	M. Sc. Economics	2		
	B.A. Honours <sup>5,7</sup>	3	Postgraduate Diploma in Library Studies	2		
	B. Sc. Economics <sup>6</sup>	3				

**Table 10.—First degrees, postgraduate degrees, diplomas and certificates, and subdegree level diplomas and certificates of the universities of Ghana and number of years of study required for each by university and faculty, school, or institute offering courses: 1972-73 (Continued)**

University and faculty, school, or institute	First degrees		Postgraduate degrees, diplomas, certificates		Subdegree diplomas and certificates	
	Title	Years of study <sup>a</sup>	Title	Years of study	Title	Years of study <sup>a</sup>
Social Studies (continued)			Postgraduate Diploma in Social Administration	2	Certificate in Social Administration	2
Statistical, Social, and Economic Research, Institute of			M. Sc. in Statistics	2	Certificate in Statistics	1
			Postgraduate Diploma in Applied Statistics	1	Higher Certificate in Statistics	1
<b>University of Science and Technology</b>						
Agriculture	B. Sc. (Agriculture)	4	M. Sc. (Agriculture)	2	Diploma in Tropical Horticulture	2
Architecture	B. Sc. (Building Technology)	4	M. Sc. (Architecture)	2	Diploma in Physical Planning	3
	B. Sc. (Design)	4	Postgraduate Diploma in Architecture	2		
	B. Sc. (Planning)	4	M. Sc. (Regional Planning)	2		
			M. Sc. (Urban Planning)	2		
Art	B.A. (Art)	4	Diploma in Art Education	1		
Engineering	B. Sc. (Eng.) <sup>b</sup>	4	M. Sc. (Engineering)	2	Diploma in Electrical Engineering	2
			Postgraduate Diploma in Geodetic Engineering	1	Diploma in Mechanical Engineering	2
			Postgraduate Diploma in Civil Engineering	1	Diploma in Civil Engineering	2
					Certificate in Geodetic Engineering	2
				Diploma in Geodetic Engineering	2	
Pharmacy	B. Pharm.	4	M. Pharm.		Diploma in Pharmacy	2

Table 10.—First degrees, postgraduate degrees, diplomas and certificates, and subdegree level diplomas and certificates of the universities of Ghana and number of years of study required for each by university and faculty, school, or institute offering courses: 1972-73 —(Continued)

University and faculty, school, or institute	First degrees		Postgraduate degrees, diplomas, certificates		Subdegree diplomas and certificates	
	Title	Years of study <sup>a</sup>	Title	Years of study	Title	Years of study <sup>a</sup>
Science	B. Sc.	4	M. Sc.	2		
			Postgraduate Diploma in Engineering Mathematics	1		
Social Sciences	B.A./B. Sc.	3			Certificate in Estate Management	2
	B. Sc. (Land Economy)	4				
<b>University of Cape Coast</b>						
Arts	B.A. General (Education)	3				
	B.A. Honours (Education)	3				
Science	B. Sc. General (Education)	3				
	B. Sc. Honours (Education)	1 <sup>10</sup>				
Education	B. Ed.	3	Diploma in Advanced Study of Education	1		
			Postgraduate Certificate in Education	1		

<sup>1</sup> In addition to the programs shown, the University of Cape Coast offered a 2-year Science Preliminary course; the University of Science and Technology offered a 2-year predegree art course, and the University of Ghana and the University of Science and Technology offered programs for the Ph. D.

<sup>2</sup> Since entry requirements for all first degree courses (except the University of Ghana B. Sc. Honours and the University of Cape Coast B. Sc. Honours (Education)) are set at General Certificate of Education Advanced-Level (GCE-A-Level), the number of years shown for all first degree courses (except the two mentioned) are at immediate post-G.C.E.-A-Level.

<sup>3</sup> From a great variety of entry levels.

<sup>4</sup> The new B.A. degree for which all students beginning a degree course in this faculty in 1972-73 and subsequent years will study.

<sup>5</sup> To be replaced by the new B.A.

<sup>6</sup> Usually 1 year beyond an honours degree and 2 beyond a general degree.

<sup>7</sup> In a single subject or in two combined subjects.

<sup>8</sup> One year beyond the B. Sc. General.

<sup>9</sup> In electrical, mechanical, civil, or geodetic engineering.

<sup>10</sup> One year beyond the B. Sc. General (Education).

universities in 1972-73, by faculty and level of study, and the following pages provide further information on the courses offered by each of the institutions in each of its fields of study.

## 1. THE UNIVERSITY OF GHANA

*Arts and Social Studies.*—Up through 1971-72, the Faculties of Arts and Social Studies offered first degree courses of only two different basic types: General and honours. Both gave 3-year courses leading to the B.A. General, a degree in 3 subjects, and 3-year<sup>22</sup> courses leading to the B.A. Honours, a degree awarded in a single major subject (sometimes accompanied by a subsidiary subject) or in two combined subjects.<sup>23</sup> The Faculty of Social Studies also offered a 3-year course leading to the B. Sc. Economics, the honours degree in this subject. The B.A. General course has a 3-3-3 structure; all students study 3 subjects—all arts, all social studies, or a combination of the two selected from a list of about 20 available subjects and African Studies the first year and three subjects in the second and third. They take the First University Examination (F.U.E.) in Arts at the end of the first and the degree examination at the end of the third. The B.A. Honours courses, which generally begin with the first-year course leading to the F.U.E. in Arts but, for selected students in certain arts subjects, may begin with a more specialized first year, all include concentrated study of the single major subject (or single major subject and a subsidiary studies to a lower level) or the two combined major subjects both studied to honours level in the subsequent years. The B. Sc. Economics course also begins with the F.U.E. in Arts course, which is followed by a 2-year program in economics, including specialization in two fields in the third year.

Presumably the university came to the conclusion that the honours courses were too specialized and the general courses not specialized enough, and that general degree students, regarded as being in second-rate programs, were receiving inadequate attention. In 1972 it announced a major decision that all the existing first degree courses in arts and social studies—and those in law and administration as well—were to be phased out and replaced by new 3-year programs. All these new programs were to have the same structure designed to combine “depth with range.” All students would take three subjects and African Studies in their first year, two of the first-year subjects in the second year, and either one or both of

<sup>22</sup> All are 3-year courses except for the honours degree in modern languages, which requires 4 (3 years in residence and 1 year abroad).

<sup>23</sup> The B.A. Honours in a single subject is awarded in: English, geography, history, Latin, linguistics, modern languages (French alone or French with Arabic, Russian, Spanish, or Swahili as a subsidiary subject), philosophy, political science, psychology, sociology, study of religions. Examples of combined subjects are archeology and either geography, history, or sociology; political science and either history, economics, or sociology; and any of the 3 possible two-subject combinations of English, French, and linguistics.

their second-year subjects in the third year. Law and administration would be available for combination with other subjects. All the programs would lead to the newly created degree, the Bachelor of Arts, which would replace the honours and general degrees. (The term honours would denote not a certain type of program but quality performance by the individual in the examinations. Students obtaining a first or second class pass in any degree program would be awarded a degree with "honours," and others would be awarded "pass" degrees.) All students beginning first degree programs in arts and social studies (or in law and administration) in 1972-73 started the new program while those who had entered earlier continued with the old honours and general degree courses. Presumably the last of the old honours and general degrees (except for the 4-year modern languages degree) were to be awarded at the end of the 1973-74 academic year.

In addition to its first and postgraduate degree programs, the Faculty of Arts gives a 2-year subdegree level course for the Licentiate in the Study of Religions, a course of specialization in either Christian religion or Islamic religion for nongraduate trained teachers or university graduates selected following an entrance examination.<sup>34</sup>

In addition to first degree and postgraduate programs in the social sciences, the Faculty of Social Studies offers courses in library studies, social administration, and nursing education. Its Department of Library Studies now gives a 2-year program for the Postgraduate Diploma in Library Studies. Initiated in 1968 when the Department suspended its 3-year B.A. degree course in library studies, this consists of 1 year of studies at the University at the end of which an examination is taken and 1 year of practical training in an approved library at the end of which a dissertation is submitted. The Department of Sociology offers both a 2-year subdegree level course for the Certificate in Social Administration, which has been available at Legon since 1956, and a 2-year course for the Postgraduate Diploma in Social Administration, which started in 1969-70. The first of these is a special course supported financially by the Ministry of Social Welfare and open to "mature candidates mostly with experience in welfare and community work" who pass an entrance examination. No specific academic qualifications are required. One of the few of its type in middle Africa, it has attracted students from several neighboring countries. The Faculty's Department of Post-Basic Nursing gives a 2-year subdegree level course leading to the Diploma in Nursing Education. This trains State Registered Nurses as instructors and supervisors in midwifery, public health, mental health, and general nursing for hospitals, nursing and midwifery schools, and public health agencies.

*Administration.*—Public administration, however, is taught, together

<sup>34</sup> The university does not give but it supervises courses in seminaries preparing students for the university's Licentiate (External) in Theology examination. Seminaries apply to the university for permission to offer their candidates for the examination.



with business administration and accounting, in the separate School of Administration. The school has given a 3-year first degree course leading to the B. Sc. (Administration) which provides, through concentrated studies in the second and third years, for specialization in any one of the three areas—accounting,<sup>35</sup> business management, and public administration. The course examinations are the B.U.E. in Administration at the end of the first year and Parts I and II of the degree examination at the end of the second and third years, respectively. This course, like all other first degree courses in arts, social studies, and law, is being phased out and replaced by the new Bachelor of Arts degree course described above.

The school has also given a 2-year subdegree level course leading to the Diploma in Public Administration. Preceded by the 1-year Elementary Local Government Certificate and the 1-year Higher Local Government Certificate courses that the school offered, the course emphasized public administration in Ghana and West Africa. It has been described as having "the same standing as" or being "of a level comparable to" the United Kingdom Diploma in Public Administration.<sup>36</sup> Missing for a long time was a subdegree level course in business studies. At the beginning of 1971-72, in "response to the great demand for middle level Accounting personnel by business houses, the Civil Service, State Corporations and educational institutions and, at the request of Government," the School introduced a new 2-year subprofessional course in accounting leading to the Certificate in Accounting, on the basis of which the holder may be exempted from the Intermediate Examination of the Ghana Institute of Chartered Accountants.<sup>37</sup>

The school has also offered for some time a 3-year post-G.C.E. Ordinary-Level course for the Diploma in Hospital Administration. This diploma and 1 year's experience in hospital constitute the required qualification for appointment as a hospital secretary.

*Law.*—The first degree course in law which is now being phased out and replaced by the new Bachelor of Arts course described above covers 3 years and leads to the LL.B. degree. The holder of this LL.B. who wishes to be enrolled as a Legal Practitioner in Ghana must take a further 2-year<sup>38</sup> professional course (known as the "Practical Course in Law") leading to the Professional Certificate in Law and must earn this certificate. The course is given by the Faculty of Law on behalf of the General Legal Council of Ghana.<sup>39</sup>

<sup>35</sup> Holders of the B. Sc. (Administration) in accounting are exempted from the Intermediate Examinations of the Ghana Institute of Chartered Accountants and from Parts I and II of the professional examinations of the Association of Certified and Corporate Accountants of Great Britain.

<sup>36</sup> University of Ghana, *Calendar 1968-70*, p. 130; and *Calendar 1970-72*, p. 152.

<sup>37</sup> "Vice-Chancellor's Address to Congregation 11th March, 1972," *University of Ghana Reporter*, 11:14:216, Apr. 28, 1972.

<sup>38</sup> The course was 1 year in length from 1965-66 through 1969-70. A 1970 decision by the General Legal Council extended it to 2.

<sup>39</sup> These courses began in 1965-66. The Faculty previously gave a 3-year first degree course leading to the B.A. (Honours) Law degree and, for holders of this degree, a 2-year professional course leading to the former LL.B. degree.

*Science.*—The Faculty of Science gives two first degree courses: B. Sc. General and B. Sc. Honours. The 3-year B. Sc. General course consists of (1) three science subjects<sup>10</sup> and African Studies in the first year, leading to the First University Examination in Science (F.U.E. in Science), (2) two science subjects<sup>11</sup> in the second, leading to the Second University Examination in Science, and, in most cases, (3) three subjects (a major and a minor or two standard subjects)<sup>12</sup> in the third, leading to the B. Sc. General examination. The degree is awarded in subjects taken during the final year.

The B. Sc. Honours degree may be awarded in biochemistry, botany, chemistry, food science, geology, mathematics, nutrition, physics, psychology, or zoology.<sup>13</sup> In all subjects except mathematics and psychology, it requires a 1-year course of specialization in the particular subject after the B. Sc. General degree is earned. The courses for the B. Sc. Honours in mathematics and psychology begin at first degree entry level (G.C.E. A-Level) and include a specialized program of study during the last 2 years.

The faculty in addition offers instruction for the M. Sc. degree. This may be awarded in any one of the subjects in which the B. Sc. Honours is awarded or in freshwater biology. The degree has normally required 1 year for the holder of the B. Sc. Honours and 2 for the holder of the B. Sc. General.

*Medicine.*—Most students take a 6-year program to earn the medical degrees M.B., Ch.B. (Bachelor of Medicine and Bachelor of Surgery). This consists of the 1-year<sup>14</sup> premedical course taken at the Legon campus of the university and the 5-year medical course itself, which is taken at the medical school housed at Korle Bu, Accra. (Those exempted from the premedical course on the basis of satisfactorily high grades in G.C.E. A-Level examinations in chemistry, biology, and physics take only the 5-year course.) The premedical course, which requires three A-Level passes for entry, consists of chemistry, physics, biology, mathematics, and African Studies. The medical course consists of (1) a 5-term preclinical course (in anatomy, biochemistry, and physiology) leading to the Second Professional Examination for the M.B., Ch.B. degrees, which is taken in March; (2) a one-term introductory clinical course; and (3) a 3-year (10-term) course of clinical studies at Korle Bu Hospital, Accra, that prepares students for Parts I, II, and III of the final M.B., Ch.B. examination. This 3-year course consists of five terms leading to Part I (in pharmacology, pathology, microbiology), which is taken in March, at the end of the second year of clinical studies; three terms (including a July-September term) leading to

<sup>10</sup> Selected from botany, chemistry, geology, mathematics, physics, psychology, and zoology.

<sup>11</sup> Subjects in footnote 10 plus (1) biochemistry and (2) food science and nutrition.

<sup>12</sup> Three subjects (one standard and two minor) if the program includes the two subjects biochemistry and nutrition.

<sup>13</sup> Formerly an honours degree was awarded in biochemistry and nutrition combined.

<sup>14</sup> For students beginning in 1962-63 and 1963-64 the course covered 2 years.

Part II (in pediatrics and obstetrics and gynaecology), which is taken in December of the final year; and two terms leading to Part III (in medicine and therapeutics, surgery, and preventive and social medicine), which is taken in June at the end of the final year. The holder of the M.B., Ch.B. degrees must complete 1 year of a 2-year internship before becoming eligible for registration as a medical practitioner.

*Agriculture.*—The Faculty of Agriculture now gives<sup>45</sup> a 4-year honours degree course leading to the B. Sc. (Honours) Agriculture degree. In the third year the student takes three optional subjects selected from agricultural economics, agricultural engineering, crop science, soil science, and animal science; and in the fourth he specializes in one of them. He takes the F.U.E. in Agriculture at the end of the first year and Parts I, II, and III of the B. Sc. (Honours) Agriculture examination at the end of the second, third, and fourth years, respectively.

At the graduate level, the faculty offers instruction leading to the M. Sc. Agriculture degree, which may be awarded in any one of the subjects in which the B. Sc. (Honours) Agriculture is awarded. At the subdegree level it gives two courses designed for mature students from the Ministry of Agriculture: (1) The 2-year course leading to the National Diploma in Agriculture (in Animal Health or in General Agriculture), which is open to those who have completed either a 3-year postsecondary course in veterinary science at Pong. Tamale, or the 3-year postsecondary course in agriculture at Kwadaso and have passed an entrance examination, and (2) the 1-year course leading to the Special Diploma in General Agriculture, which is open to holders of the School Certificate (or equivalent) and the diploma in agriculture of the University of Science and Technology.

The Faculty of Agriculture also provides all university instruction in home science. It offers a 3-year course leading to the B. Sc. (Home Science) General. About 65 percent of this course, which was introduced in 1966-67, is devoted to course work in physical, biological, and social sciences and the remainder to the applied area of studies. The examinations are the F.U.E. in Home Science at the end of the first year and Parts I and II of the B. Sc. (Home Science) General examination at the end of the second and third years, respectively. The Faculty also offers a 2-year subdegree level course leading to the Diploma in Home Science Extension. This was started in 1969-70 to train Ministry of Agriculture home extension agents at the district level.

*Statistics.*—With certain exceptions, Ghana's university course work in statistics has been concentrated at the Institute of Statistical, Social, and Economic Research of the University of Ghana. The institute now offers two postgraduate courses, the 2-year course leading to the M. Sc. in Statistics and the 1-year course leading to the Postgraduate Diploma in Ap-

<sup>45</sup> It formerly offered a 3-year course for the B. Sc. (Agriculture) General degree (last awarded in 1968) and a 4-year course for the B. Sc. (Agriculture) Special degree (last awarded in 1967).

plied Statistics. It also gives level courses. The first is the 1-year non-academic vocational two subdegree training course designed mainly for civil servants, which leads to the Certificate in Statistics. To enter the course the individual must have Ordinary-Level passes in English and mathematics (or pass an examination in these subjects), 2 years' experience in a statistical office, and sponsorship by his employer. Previously given by the U.N. Statistical Training Center, this course has been given at the university since 1966. The second course is the 1-year Higher Certificate in Statistics course, which was introduced in 1970-71 to give further training to holders of the Certificate in Statistics and to serve as a refresher or remedial course for graduates in the social sciences.

*Performing Arts.*—Sharing the field of fine and applied arts with Kumasi's Faculty of Art, the School of Music and Drama run by the Institute of African Studies gives a subdegree level diploma course emphasizing general informational training in each of the three performing arts—dance, drama, and music—as well as a course in ethnomusicology emphasizing Africa for holders of a degree or a diploma in music.<sup>46</sup>

## 2. THE UNIVERSITY OF SCIENCE AND TECHNOLOGY

*Agriculture.*—Like the agriculture faculty at Legon, Kumasi's Faculty of Agriculture now offers a 4-year honours degree course in agriculture.<sup>47</sup> This leads to the B. Sc. (Agriculture). In the fourth year the student specializes in one of the following areas: Agricultural economics, agricultural engineering, animal production, crop husbandry, crop protection, horticulture, grassland management, and soil science. It also offers, in conjunction with the Faculty of Engineering, the recently introduced 4-year first degree course leading to the B. Sc. (Agricultural Engineering).

At subdegree level it gives, as it has given since 1962-63, a 2-year course leading to the Diploma in Tropical Horticulture in order to train employees of the Government's department of parks and gardens and other Government or semi-Government agencies. To enter the course the individual must have the School Certificate and 2 years of experience at an approved horticulture institution and be nominated by the agency that employs him. The Faculty also offers a 2-year program leading to the M. Sc. (Agriculture), which may be awarded in horticulture, poultry science, soil science, or agronomy.

*Architecture.*—Since it was originally established within the former College of Technology in 1958, the Faculty of Architecture has provided courses not only in architecture but in building technology and planning as well. It now offers three 4-year honours degree courses—one in each of

<sup>46</sup> The institute has in the past also given the following 1- or 2-year certificate courses with lower entrance requirements than those for the diploma courses: Certificate in Dance (1-year), Certificate in Drama and Theatre Studies (1), Certificate in Music (2).

<sup>47</sup> Introduced in 1968-69, this has replaced the former 3-year general degree course.

these three areas. These degrees are the B. Sc. (Design), the B. Sc. (Building Technology), and the B. Sc. (Planning). The B. Sc. (Design) course, which was, before the 1969-70 reorganization of faculty programs, a combined course for potential architects and planners, now provides training only for potential architects and, like the former course, constitutes the first 4 years of the complete 6-year program of professional training for architects. Formerly a broadly based single program, the B. Sc. (Building Technology) course now offers specialization in either building economics/quality surveying or building management. It prepares students for graduate study or, after the required period of experience, for professional examinations in quantity surveying or building. Introduced in 1969-70 to allow for greater specialization in planning than was possible in the former B. Sc. (Design) course, the B. Sc. (Planning) course trains general planners for Government offices and prepares students for postgraduate specialization in regional or urban planning.

At the graduate level the faculty gives 2 courses in architecture: (1) The 2-year course leading to the Postgraduate Diploma in Architecture, a professionally oriented course which completes the 6 years of training required of architects and leads to an examination for the professional qualification, and (2) the 2-year course leading to the M. Sc. (Architecture), a research-oriented course. (Before the 1969-70 reorganization of faculty programs the M. Sc. (Architecture) program constituted the final phase of professional training.) In planning, it offers to holders of the B. Sc. (Design) a 2-year course leading to the M. Sc. (Urban Planning) and to holders of degrees in economics, sociology, and so on, a 2-year course leading to the M. Sc. (Regional Planning).<sup>48</sup>

At the subdegree level it gives a 3-year course leading to the Diploma in Physical Planning. This is designed to train assistants for employment in Central Government and other agencies that help local communities develop their own rural or urban areas. To enter the course the individual must have either one Advanced- and four Ordinary-Level passes *or* the Overseas Ordinary National Certificate or Overseas Ordinary Technician Diploma of the City and Guilds of London Institute.

Presumably in architecture and building technology the need for sub-professional personnel trained by means of subdegree diploma courses exceeds the need for high-level professional personnel. The faculty has never offered a subdegree diploma course in architecture, nor has it offered one in building technology since the early 1960's. In 1971-72 the Faculty of Engineering introduced a new course leading to a diploma in civil engineering, which may meet the needs of subprofessional architectural personnel. As of 1972-73, a subdegree Diploma in Building Technology course

<sup>48</sup> A Postgraduate Diploma in Planning course initiated in 1969-70 has been discontinued.

which, according to recent university catalogues,<sup>19</sup> the University has identified as a "critical requirement" had not yet been introduced.

*Engineering.*—The long-established engineering programs at the Faculty of Engineering now include a variety of first degree, postgraduate, and subdegree level courses. At first degree level the faculty has, for several years, given four different 4-year honours degree courses leading, respectively, to the B. Sc. (Engineering) degree in civil engineering, electrical engineering, mechanical engineering, and geodetic engineering. Except for African Studies in the first year and a course in economics and industrial management in all but the geodetic engineering course, all four courses consist entirely of technical subjects. Students must undertake and report on an individual project in the fourth year and must work in industry for practical experience during each long vacation. The faculty also shares responsibility for the previously mentioned B. Sc. (Agricultural Engineering) course.

At the postgraduate level it offers, and has for a number of years, a 12-month course for the Postgraduate Diploma in Geodetic Engineering in order to meet the needs of the Government for qualified land surveyors; and also 2-year M. Sc. Engineering and 1-year Postgraduate Diploma courses in other branches of engineering.

Finally, the faculty provides various subdegree level courses for training middle-level engineering personnel. In electrical and mechanical engineering, it has for a number of years given the subdegree higher diploma level training for technicians (comparable to the Higher National Diploma in the United Kingdom), which has not been available in the Polytechnics of Ghana. This training is open only to students who have completed courses in the technical institutions and hold the Ordinary Technician Diploma of the City and Guilds of London Institute awarded by the Polytechnics in Ghana (or other approved qualification) and thus leads from the courses in the Polytechnics. It consists of (1) a 2-year program in electrical engineering that includes a common first year and a second year of specialization in either heavy or light current and leads to the Diploma in Electrical Engineering (Heavy or Light Current) and (2) a 2-year program in mechanical engineering that includes a common first year and a second year of specialization in either industrial or agricultural machinery and leads to the Diploma in Mechanical Engineering (Agricultural or Industrial). In Ghana the Diploma has been considered the equivalent of the British Higher National Diploma. In 1971-72 the faculty introduced a comparable 2-year course that leads to the Diploma in Civil Engineering and provides for specialization in highway, sanitary, or structural engineering.

Since 1968-69 it has also offered a 2-year post-G.C.E. Ordinary-Level

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<sup>19</sup> University of Science and Technology, *Faculty of Architecture Prospectus (1970-71)*, p. 42; and *Calendar 1971-72*, p. 127.

course for the Certificate in Land Surveying (or Geodetic Engineering), which replaced the former Survey School Certificate course, and, for holders of the Certificate in Land Surveying who have a year's practical experience, a 2-year course for the Diploma in Land Surveying (or Geodetic Engineering).

*Pharmacy.*—The Faculty of Pharmacy now gives (1) a 4-year<sup>50</sup> honours degree course consisting of lectures and practical classes in pharmaceutical chemistry, pharmaceuticals (including microbiology), pharmacology (including physiology), and pharmacognosy that leads to the Bachelor of Pharmacy (B. Pharm.) degree; (2) a 2-year course leading to the Master of Pharmacy (M. Pharm.) degree; and (3) a 2-year post-G.C.E. Advanced-Level<sup>51</sup> subdegree course in the four subjects named above, which leads to the Diploma in Pharmacy. This third course was introduced in 1968-69 in response to a Government recommendation and the need for middle-level pharmacy personnel, particularly in the hospitals. The faculty had discontinued an earlier diploma course when it began its first degree program in 1961-62.

*Science.*—The Faculty of Science gives 6 different 4-year courses leading, respectively, to the honours degree B. Sc. in biological sciences, biochemistry, chemical technology, chemistry, mathematics, or physics.<sup>52</sup> In all six courses, the first year includes two pure science subjects, mathematics, English, and African studies. The second is more specialized. In the third and fourth years the students concentrate on their major subjects, those in the fourth year of the biological sciences program selecting either botany or zoology. An off-campus training program during each long vacation is an integral required part of the course.

In the faculty a student may also work for the 2-year M. Sc. in any subject in which the B. Sc. is awarded. In mathematics his four options are pure mathematics, computational mathematics and computer science, mathematical physics, and statistics and operational research.<sup>53</sup>

*Social Sciences.*—Upon its establishment in 1971-72 the new Faculty of Social Sciences started the new 3-year B.A. degree course. It also took over from the Faculty of Agriculture two courses in land economy: The 4-year course leading to the honours degree B. Sc. (Land Economy) and the 2-year subdegree level course leading to the Certificate of Proficiency in Estate Management. Introduced in 1966-67, the degree course has been described as an introduction to the economic and legal principles and technical re-

<sup>50</sup> Students beginning before 1969-70 took a 3-year B. Pharm. course.

<sup>51</sup> Entry requirements include G.C.E. Ordinary-Level passes in 5 subjects and an Advanced-Level pass in 1 of 4 science subjects.

<sup>52</sup> From the 1964 reorganization of higher education until the November 1966 reconstitution of its Faculty of Science, the university offered 4-year courses in applied biochemistry, applied physics, and chemical technology leading to the B. Sc. Technology degree.

<sup>53</sup> In the past the faculty has also offered a 1-year course for the Postgraduate Diploma in Applied Statistics and a 1-year full-time or 18-month part-time course for the Postgraduate Diploma in Engineering Mathematics.

quirements determining the use of land and land resources, both urban and rural. It includes land law, land values, building construction and sanitation, and town planning; and is designed to prepare land valuers and managers in central and local government and quasi-government and private agencies. Also started in 1966-67, the certificate course gives "elementary technical schooling" in land law, economics, surveying and taxation, government, and construction to employees of Government departments and public corporations. No formal academic qualification is required for admission, but the student must be sponsored by the agency employing him.

*Art.*—The Faculty of Art provides a 2-year predegree course, which has been continued because of limited Sixth Form facilities for teaching art, and, usually preceded by this course, a 4-year course for the Bachelor of Arts (Art)<sup>34</sup>—B.A. (Art)—which provides for specialization in the second through fourth years in one of the following: Design, metal products design, painting, pottery and ceramics, sculpture, and textiles. In addition the faculty gives one of only two university-level teacher education programs offered outside the University of Cape Coast. This is the 1-year Diploma in Art Education course, an intensive program in education, including practice teaching, designed to train holders of the B.A. (Art) as secondary school and teacher-training college teachers of arts and crafts.

### 3. THE UNIVERSITY OF CAPE COAST

Except for the postgraduate art education course at the University of Science and Technology and the course in nursing education at the University of Ghana, all university programs in education are offered at the University of Cape Coast, which has been charged with primary responsibility for turning out teachers for Ghana's secondary-level schools.

Throughout its years as the University College of Cape Coast, the institution offered two "general" first degree courses leading to the B. Sc. General (Education) and the B.A. General (Education) of the University of Ghana to prepare, respectively, teachers of science subjects and teachers of arts subjects for the secondary-level schools. Because of a shortage of adequately qualified candidates for the degree courses, it also offered (1) a post-Ordinary-Level "Science Preliminary" course leading to the Preliminary Examination in Science in order to prepare students for the B. Sc. General (Education) course and (2) a 1-year post-Ordinary-Level Arts Preliminary course leading to the Preliminary Examination in Arts in order to prepare students for the B.A. General (Education) course. The latter was discontinued at the end of 1971-72.

As of 1972-73, the university was continuing to offer the Science

<sup>34</sup> Initiated in 1969-70, this 4-year course replaced the 3-year B.A. Art course which was offered for the last time during the period 1969-70 through 1971-72.



Preliminary course and the 2 general first degree courses, which now lead to University of Cape Coast (rather than University of Ghana) degrees.<sup>52</sup> To enter the Science Preliminary course the student must have 5 Ordinary-Level passes. Formerly 1 year in length, the course now covers 2 years and consists of three science subjects, an ancillary science subject, and English. To enter the B. Sc. General (Education) course the student must meet the degree entry requirements, which include two A-Level passes, *or* pass the Preliminary Examination in Science. The course consists of three science subjects, African Studies, and education in the first year, and of education and two science subjects in the second and third years. The B.A. General (Education) course, to which students may be admitted who have the required G.C.E. passes *or* the Preliminary Examination in Arts, consists of education and two arts subjects in each of the 3 years and African Studies in the first.

In addition to these older first degree courses—the B.A. General (Education) and the B. Sc. General (Education)—the University offers three others that it introduced in 1971–72, its first year as a full university: (1) The B.A. Honours (Education), which consists of the first year of the B.A. General (Education) course and a further 2-year program consisting of education and a single or combined academic subject; (2) the B. Sc. Honours, a 1-year course in one subject (botany, zoology, chemistry, mathematics, or physics) for holders of the B. Sc. General (Education) degree, and (3) the B. Ed., an honours degree course in education which emphasizes teaching methods and techniques, educational philosophy, school organization and administration, and the psychology of teaching and learning and includes two arts or two science subjects as minors.

At the postgraduate level, the University offers, as it has for a number of years, two 1-year courses leading, respectively, to the Postgraduate Certificate in Education and the Diploma in Advanced Study of Education. The Postgraduate Certificate in Education course is a professional course for non-education university graduates who have taught for at least a year after graduation. It includes in addition to four subjects (educational psychology, history of education, comparative education, and so on) methods of teaching one subject and practice teaching. This Postgraduate Certificate in Education is equivalent to the former Diploma in Education and the even older Postgraduate Certificate in Education. The Diploma in Advanced Study of Education course is open to graduates of the University of Cape Coast (or other approved universities) and to holders of a postgraduate certificate in education from an approved university (or the equivalent) who have taught for at least 2 years. It has required 1 year full-time or at least 2 years part-time and consists of three

<sup>52</sup> Except in the case of students who were enrolled before 1971–72 and who applied and obtained permission to take final examinations for University of Ghana degrees.

subjects, including the compulsory subject educational psychology and child development.

Some fields of study, such as dentistry, forestry, veterinary medicine, fisheries, and actuarial studies, are, of course, not available in Ghana, and students go abroad for courses in these fields. They also go abroad for certain specialist courses and for courses apparently unavailable to sufficient numbers within the country. For example, there are a number of students studying medicine, engineering, agriculture, accountancy, science, and economics abroad. The Government's general policy is that students should proceed abroad only for studies not available or not available in sufficient number within the country. The Scholarships Secretariat is responsible for all scholarships for study overseas, whether Ghanaian Government or foreign.

**PART V.**  
**Enrollment and**  
**Output Patterns**

## 1. EDUCATIONAL EXPANSION AND OPPORTUNITIES

### Growth of the System

#### *The Public System*

During the period of great educational expansion (from 1952 to 1966) when the C.P.P. governed Ghana, the public educational system grew from a small structure of fewer than 1,700 schools enrolling about 226,000 children in 1951 to a system of almost 11,000 schools enrolling nearly 1.5 million in 1965-66 (table 11). This expansion was achieved both by establishing new institutions and absorbing private schools into the public system.

Every level of the system expanded. The number of primary schools grew from some 1,000 in 1951 to more than 8,000 in 1965-66, enrolling seven times the number of pupils in 1951; while the number of middle schools rose from some 500 to almost 2,300, enrolling four times the number in 1951. Enrollments at both primary and middle levels had increased significantly with and after the initiation of fee-free compulsory education in 1961-62. Many children over 6 years of age who had missed entering school earlier began the primary course. The number of teacher-training colleges preparing teachers for these elementary schools had increased from 20 in 1951 to 81 in 1965-66, including 35 very recently established institutions and a number of small unviable ones; and the number of teachers in training was eight times the number in 1951. A similar increase had taken place in technical education. Rather surprisingly, general secondary education had grown at a greater rate than that of any of the other non-university levels. Whereas in 1951 there were 13 public secondary schools, by 1965-66 there were 105; and public secondary school enrollment was more than 14 times that of 1951. University enrollments were 20 times the small number in 1951.

After the 1966 coup, enrollments in public primary schools, previously increasing so dramatically, actually declined. The number of pupils dropped from about 1,137,000 in 1965-66 to less than 948,000 in 1970-71 before rising to more than 960,000 in 1971-72, while the number of primary schools dropped from more than 8,000 to about 6,700 in 1971-72. Admissions fell off sharply in 1966-67 and continued to decline in the 2 subsequent years. In 1969-70 they began to rise again but as of 1971-72 were still well below the 1961-62 level.

Table 11.—Number of educational institutions and students in the public educational system, by level or type of institution: School years 1951–1971–72

[ . . . means there were no institutions or students.]

School year	All institutions	Primary	Middle	General secondary	Commercial	Technical	Teacher training	Universities
1	2	3	4	5	6	7	8	9
INSTITUTIONS								
1951	1,661	1,083	539	13	.....	5	20	1
1952	3,792	3,069	667	26	.....	6	22	2
1953	3,898	3,131	704	30	.....	6	25	2
1954	3,921	3,136	717	31	.....	7	28	2
1955	4,065	3,210	786	31	.....	7	29	2
1956	4,249	3,312	862	35	.....	8	30	2
1957	4,381	3,372	931	38	.....	8	30	2
1958	4,511	3,402	1,030	39	.....	8	30	2
1959	4,625	3,428	1,118	39	.....	8	30	2
1960	4,708	3,452	1,177	39	.....	8	30	2
1960-61	4,905	3,552	1,252	59	.....	9	31	2
1961-62	7,034	5,344	1,580	67	.....	9	32	2
1962-63	8,614	6,749	1,738	76	.....	9	39	3
1963-64	9,442	7,392	1,906	85	.....	11	45	3
1964-65	10,139	7,900	2,089	89	.....	11	47	3
1965-66	10,624	8,144	2,777	105	.....	11	84	3
1966-67	10,472	7,913	2,346	103	13	*11	83	3
1967-68	10,706	7,480	3,017	104	9	*11	82	3
1968-69	10,712	7,293	3,201	108	9	*15	83	3
1969-70	10,876	7,239	3,422	112	9	15	76	3
1970-71	10,780	7,008	3,546	125	9	15	74	3
1971-72	10,563	6,715	3,608	139	9	15	74	3
STUDENTS								
1951	226,218	154,360	66,175	2,937	.....	622	1,916	208
1952	424,079	335,094	80,013	5,033	.....	866	2,363	710
1953	471,976	372,379	88,600	6,066	.....	1,178	2,939	814
1954	506,616	396,933	97,391	6,936	.....	1,255	3,272	829
1955	538,250	419,362	105,009	7,711	.....	1,756	3,498	914
1956	560,372	436,854	108,548	8,908	.....	1,744	3,551	767
1957	589,153	455,749	115,831	9,860	.....	3,057	*3,873	*783
1958	598,553	455,053	125,313	10,423	.....	2,749	*4,055	*960
1959	624,575	465,290	139,984	11,111	.....	2,782	*4,274	*1,134
1960	645,689	478,142	147,519	11,874	.....	2,522	4,529	*1,103
1960-61	702,862	520,026	157,683	16,523	.....	2,894	*4,552	1,184
1961-62	854,934	641,770	184,292	19,062	.....	2,980	5,452	1,378
1962-63	1,024,134	788,088	202,529	23,891	.....	*1,575	6,021	2,030
1963-64	1,122,055	871,385	208,626	27,663	.....	4,228	7,711	2,442
1964-65	1,374,450	1,065,251	257,625	33,131	.....	4,834	10,203	3,406
1965-66	1,471,407	1,137,495	267,434	42,111	.....	4,956	15,144	4,267
1966-67	1,467,701	1,116,843	280,866	42,280	2,755	4,010	16,441	4,506
1967-68	1,473,324	1,072,523	329,679	43,889	2,442	3,145	16,768	4,878

**Table 11.—Number of educational institutions and students in the public educational system, by level or type of institution: School years 1951–1971–72—(Continued)**

[ . . . means there were no institutions or students.]

School year	All institutions	Primary	Middle	General secondary	Commercial <sup>1</sup>	Technical <sup>2</sup>	Teacher training	Universities
1	2	3	4	5	6	7	8	9
1968–69	1,476,897	1,015,457	381,569	46,512	2,892	6,040	19,392	5,035
1969–70	1,484,278	975,629	424,430	49,182	3,625	7,577	19,076	4,759
1970–71	1,479,065	947,502	442,302	52,852	4,273	7,896	19,511	4,729
1971–72	1,509,847	960,403	455,398	56,801	4,615	8,345	19,221	5,063

<sup>1</sup> Commercial secondary schools.

<sup>2</sup> Including technical teacher-training.

<sup>3</sup> Excludes the Accra Training Center and the Tema Training Center, which reportedly opened in 1966–67.

<sup>4</sup> Excludes the Accra Training Center and the Tema Training Center, which reportedly opened in 1966–67, and also the Technical Institute, Sunyani, and the Technical Institute, Ho, which reportedly opened in 1967–68.

<sup>5</sup> Includes the 4 institutions named in footnote 4.

<sup>6</sup> Certificate A and B courses only. Excludes enrollments in specialist teachers courses.

<sup>7</sup> The figure is for university academic year 1956–57.

<sup>8</sup> The figure is for university academic year 1957–58.

<sup>9</sup> The figure is for university academic year 1958–59.

<sup>10</sup> The figure is for university academic year 1959–60.

<sup>11</sup> Full-time students only.

Sources: Gold Coast. Report on the Education Department for the Year 1951. Accra: Government Printing Department, 1953. pp. 26, 34–36. Gold Coast Government. Annual Report of the Education Department for the Year 1952. Accra: Government Printing Department, 1954. pp. 33, 39, 41–43. Gold Coast Government. Annual Report of the Education Department for the Year 1953–54. Accra: Government Printer, 1956. pp. 44, 46, 48. Gold Coast. Education Report for the Year 1955. Accra: Government Printer, no date. pp. 8, 9, 11, 13, 19. Ghana, Ministry of Education. Education Report for the Year 1956. Accra: Government Printer, 1957. pp. 4–6, 10. Ghana, The Office of the Government Statistician. Education Statistics 1959. Accra: Office of the Government Statistician, 1959. pp. 1–2. Ghana, Ministry of Education. Education Report for the Years 1958–1960 (January 1958 to August 1960). Accra: 1962. pp. 22, 27, 31, 35, 39, 40, 44, 49, 66. Ghana, Ministry of Education. Education Report 1960–62. Accra: 1963. pp. 12, 17, 20, 24, 25. Republic of Ghana, Ministry of Education. Education Report 1963–67. Accra: 1968? pp. 47, 49, 50, 52, 81. Ghana, Central Bureau of Statistics. 1964 Statistical Year Book. Accra: 1967. pp. 180–81. Republic of Ghana, Central Bureau of Statistics. 1965–66 Statistical Year Book. Accra: Ministry of Information, 1969. p. 200. Republic of Ghana, Central Bureau of Statistics. Educational Statistics 1962–63 Primary and Middle Schools. Accra: 1965. p. 1. Republic of Ghana, Central Bureau of Statistics. Educational Statistics 1963–64 Secondary Schools, Teacher Training Colleges, Commercial/Technical Institutes. Accra: 1968. p. 1. Ghana, Ministry of Education. Education Statistics 1967/68. Processed. Ghana, Ministry of Education. Education Statistics 1968/69. Processed. Republic of Ghana, Ministry of Education. Educational Statistics 1968–69. Accra: 1971. pp. 1, 71–82. Ghana, Ministry of Education. Education Statistics 1969/70. Processed. Ghana, Ministry of Education. Education Statistics 1970/71. Processed. Ghana, Ministry of Education. Digest of Educational Statistics—1971/72. Processed.

There were probably several reasons for the decline. Many over-aged children had already been absorbed by the primary schools, and probably smaller groups made up largely of 6-year-olds were seeking admission. Presumably the introduction of textbook fees kept some parents from sending their children to school, and perhaps other policy decisions by the Government also tended to limit primary school enrollments. The following analysis appeared in the *Ghana Journal of Education*.

Some decline certainly seemed inevitable in view of the excess of admissions over the size of the age group in previous years. A return to normalcy was bound to entail a drop in the rate of admissions. However, a number of policy decisions taken by the NLC Government as part of its efforts to resuscitate the economy may also have played a part. Thus, in 1967 textbooks fees were reintroduced for pupils in Ghana's public schools and although they were small in absolute amount there seems little doubt that these had a deterrent effect on enrolment. Second, the Government launched an exercise to cut down the number of un-economic schools which had mushroomed up, often duplicating each other; it seems likely that in some areas the effect of the mergers may have been to make access to school for some children more difficult. Another factor associated with the new regime was the greater reluctance to enforce school attendance and this too, especially in the North, probably had some effect on

What cannot be known for certain is how far the quality of the primary school led to disillusionment on the part of parents caused fewer of them to send their children to school.<sup>1</sup>

During the same period (1965-66—1971-72), primary enrollments went up only 19 percent. Those at other levels increased by the following considerably larger percentages: Middle—70.3; secondary—34.9; technical—68.4; teacher-training—26.9.

The number of middle schools increased from fewer than 2,300 to more than 3,600, and the number of secondary schools from 105 to 139. Under the policy of consolidating the teacher-training system, the number of training colleges had been reduced from 84 to 74.

### *The Private Sector*

As indicated earlier, the growth of the elementary and secondary levels of the public educational system was achieved in part by absorbing private schools, and this, of course, had an impact on the private sector. At the same time, the way in which the public system developed contributed to the growth of certain types of private institutions. The results were quite different at the elementary and secondary levels.

With the absorption into the public system in 1952 of all private primary schools that were considered necessary, the previously very large private primary sector almost disappeared. As table 12 shows, enrollment in private schools dropped from about 80,000 (or more than one-third of all primary school enrollments) to about 2,000 (less than 1 percent). By the late 1960's, private school enrollments had climbed to almost 26,000 but this was only a tiny proportion (about 2 percent) of all primary school enrollments. Although small in number, these private primary schools, which meet the demand from parents who want their children well prepared for secondary school entry in 6 years and can afford to pay for this education, do constitute an important secondary preparatory sector of the total system.

<sup>1</sup> Unsigned review of a Ministry of Education publication in the "Notes, News and Views" section, *Ghana Journal of Education*, 2:4:51, October 1971.

**Table 12.—Number of public and private primary, middle, secondary, and commercial and technical schools and number of pupils in these schools, by level or type of school and control: 1951–1971–72**

(. . . means sources gave no figure.) (Number of pupils in thousands.)

School year	Primary		Middle		Secondary		Commercial and technical	
	Public	Private	Public	Private	Public	Private	Public	Private
1	2	3	4	5	6	7	8	9
<b>SCHOOLS</b>								
1951	1,083	1,450	539	1	13	49	5	36
1952	3,069	46	667	51	26	27	6	18
1953	3,131	65	704	100	30	28	6	22
1954	3,136	135	717	147	31	19	/	
1955	3,210	184	786	188	31	28	7	17
1956	3,312	166	862	128	35	23	8	26
1957	3,372	199	931	200	38	22	8	38
1958	3,402	232	1,030	257	39	24	8	38
1959	3,428	285	1,118	276	39	30	8	30
1960	3,452	305	1,177	180	39	31	8	28
1960–61	3,552	.....	1,252	.....	59	.....	9	.....
1961–62	5,344	164	1,580	66	67	44	9	22
1962–63	6,749	199	1,738	46	76	68	9	30
1963–64	7,392	262	1,906	91	85	65	11	30
1964–65	7,900	85	2,089	23	89	47	11	84
1965–66	8,144	( <sup>1</sup> )	2,277	( <sup>1</sup> )	105	45	11	79
1966–67	7,913	( <sup>1</sup> )	2,346	( <sup>1</sup> )	103	61	24	88
1967–68	7,480	.....	3,017	.....	104	.....	20	.....
1968–69	7,293	146	3,201	20	108	63	24	79
1969–70	7,239	131	3,422	9	112	80	24	109
1970–71	7,008	.....	3,546	.....	125	.....	24	.....
1971–72	6,715	150	3,608	.....	139	124	24	.....
<b>PUPILS</b>								
1951	154.4	80.1	66.2	( <sup>1</sup> )	2.9	4.0	.6	1.3
1952	335.1	2.2	80.0	1.6	5.0	2.0	.9	.7
1953	372.4	3.3	88.6	3.8	6.1	2.4	1.2	.8
1954	396.9	6.3	97.4	7.2	6.9	1.7	1.3	.3
1955	419.4	10.2	105.0	8.9	7.7	2.3	1.8	1.2
1956	436.9	9.8	108.5	7.1	8.9	2.2	1.7	1.5
1957	455.7	12.3	115.8	11.7	9.9	2.3	3.1	( <sup>1</sup> )
1958	455.1	16.0	125.3	14.5	10.4	2.8	2.7	2.2
1959	465.3	18.1	140.0	14.7	11.1	4.2	2.8	1.8
1960	478.1	25.0	147.5	13.7	11.9	4.2	2.5	2.0
1960–61	520.0	.....	157.7	.....	16.5	.....	2.9	.....
1961–62	641.8	.....	184.3	.....	19.1	.....	3.0	.....
1962–63	788.1	.....	202.5	.....	23.9	.....	1.6	.....
1963–64	871.4	.....	208.6	.....	27.7	.....	4.2	.....
1964–65	1,065.3	19.8	257.6	.9	33.1	6.9	4.8	4.9
1965–66	1,137.5	18.5	267.4	.6	42.1	5.9	5.0	7.4
1966–67	1,116.8	25.7	280.9	.7	42.3	7.0	6.8	8.2



Table 12.—Number of public and private primary, middle, secondary, and commercial and technical schools and number of pupils in these schools, by level or type of school and control: 1951–1971–72 (Continued)

[... means sources gave no figure.] (Number of pupils in thousands.)

School year	Primary		Middle		Secondary		Commercial and technical	
	Public	Private	Public	Private	Public	Private	Public	Private
1967–68	1,072.5	.....	329.7	.....	43.9	.....	5.6	.....
1968–69	1,015.5	.....	381.6	.....	46.5	.....	8.9	.....
1969–70	975.6	.....	424.4	.....	49.2	.....	11.2	.....
1970–71	947.5	.....	442.3	.....	52.9	.....	12.2	.....
1971–72	960.4	.....	455.4	.....	56.8	.....	13.0	.....

<sup>1</sup> A Ministry of Education source gave no figure, but indicated there were 103 private primary and middle schools. Another official source indicated there were 103 private primary and 19 private middle schools.

<sup>2</sup> A Ministry of Education source did not give a figure, but indicated there were 159 private primary and middle schools. Another official source indicated there were 159 private primary and 19 private middle schools.

<sup>3</sup> Includes 21 technical and 58 commercial schools.

<sup>4</sup> Includes 26 technical, 60 commercial, 16 vocational, and 7 other schools.

<sup>5</sup> 38 (absolute figure—not in thousands).

<sup>6</sup> Ministry sources did not give a figure. Two other sources gave, respectively, the figures 2,439 and 2,088.

Sources: Ghana, Office of the Government Statistician. *Education Statistics 1959*. Accra: Office of the Government Statistician, 1959, pp. 1, 2. Republic of Ghana, Central Bureau of Statistics. *1962 Statistical Year Book*. Accra: Government Printing Department, 1964, p. 164. Republic of Ghana, Central Bureau of Statistics. *1965–66 Statistical Year Book*. Accra: Ministry of Information, 1969, p. 200. Republic of Ghana, Ministry of Education. *Education Report 1963–67*. Accra: 1968? p. 50. Ghana, Ministry of Education. *Education Statistics 1967, 68*. Processed. Ghana, Ministry of Education. *Education Statistics 1968/69*. Processed. Republic of Ghana, Ministry of Education. *Educational Statistics 1968–69*. Accra: 1971, p. 1. Ghana, Ministry of Education. *Education Statistics 1969/70*. Processed. Ghana, Ministry of Education. *Education Statistics 1970/71*. Processed. Ghana, Ministry of Education. *Digest of Educational Statistics—1971/72*. Processed. Also information (number of private primary and secondary schools in 1971–72) provided to the author by the Ministry of Education, July 1972.

Just as most private primary schools had been absorbed into the public system in 1952, so a majority of the private middle schools were brought into it with the introduction of fee-free middle school education in 1961–62. Since then private middle schools have apparently disappeared or almost disappeared from the educational scene.

Private secondary schools were also taken into the public system. In 1952, 13 came in, doubling the number of public secondary schools and reversing the former balance between private and public secondary school enrollments. Others were absorbed later, but evidently new private secondary institutions continued to be established. The number of such institutions—both general secondary and technical and commercial institutions—has increased, and by the end of the 1960's (1969–70) they outnumbered the public institutions 189 to 136. One can only assume that they are the product of demands generated by elementary school expansion and unsatisfied by the public educational system.

## Educational Opportunities

### *The System and the School-Age Population*

The great expansion of the educational system has, of course, brought educational opportunities to a much greater proportion of Ghana's school-age children than in the past—but to a smaller proportion than one might have expected.

Relevant data are of two types: (1) Enrollment in a certain cycle shown as a percentage of the estimated or actual number of children in a roughly comparable age group, and (2) census data showing the number and proportion of all children within a particular age group who are attending school. These are, of course, quite different indicators of the relationship between school enrollment and school-age population, and largely because of the number of children in the over-14 age group attending elementary school, the figures are generally different for any given year.<sup>2</sup>

Not long before the Accelerated Development Plan was launched, the Education Department reported that the Gold Coast had about 405,000 children of primary school age and 270,000 of middle school age—on a total of 675,000 in the 10-year primary and middle school age group.<sup>3</sup> These population estimates, enrollments in all primary and middle schools as given in the Department's reports for 1949-50 and 1951,<sup>4</sup> and these enrollments shown as a percentage of the population estimates are as follows:

	1949	1951
<i>Estimated population</i>		
Primary and middle school age -----	675,000	675,000
Primary school age -----	405,000	405,000
Middle school age -----	270,000	270,000
<i>Enrollments</i>		
Primary and middle schools -----	288,000	300,705
Primary schools -----	235,000	234,492
Middle schools -----	53,000	66,213
<i>Enrollments as percentage of estimated population</i>		
Primary and middle school level -----	42.7	44.5
Primary school level -----	58.0	57.9
Middle school level -----	19.6	24.5

<sup>2</sup> For example, a percentage figure showing enrollment in the first 9 years of elementary education as a proportion of the estimated or actual population in the comparable age group 6-14 will probably be *larger* than the proportion of children in the 6-14 age group attending school because children over 14 and some under 6 are enrolled in primary and middle schools. The reverse will probably be true at the secondary level. For example, a percentage figure showing enrollment in the 5-year basic *secondary* cycle as a percentage of a comparable age group will probably be *lower* than the percentage of children in that age group attending school, for those attending school do include overaged children attending an elementary school course.

<sup>3</sup> Gold Coast. *Report on the Education Department for the Year 1949-50*. Accra: Government Printing Department, 1951, p. 8. The Accelerated Development Plan gave the same figures as the number in these groups in the Colony and Ashanti.

<sup>4</sup> *Ibid.* and Gold Coast. *Report on the Education Department for the Year 1951*. Accra: Government Printing Department, 1953, p. 36.

A UNESCO study published in the late 1950's indicated that in 1956 enrollment in primary and middle schools (562,000) constituted 56 percent of the number of children 5 through 14 years of age (993,000).<sup>5</sup>

Undoubtedly such reported enrollment rates were too high because the population data on which they were based were too low. The estimated number of children of primary and middle school age as reported in the Department's 1949-50 report constituted only 16 percent of the total population of just over 4 million counted at the time of the 1948 census. The proportion could have been larger. Moreover, it is generally thought that the 1948 census undercounted the population of the Gold Coast. In any case, figures from the 1960 census made it clear that the school-age population was larger and the proportion of school-age children in school lower than previously estimated.

The following figures are from the 1960 census.

	<i>Number</i>	<i>Percent</i>
Population 6-14	1,468,400	100.0
Attending school	588,300	40.1
Having attended school in the past	52,900	3.6
Never having attended	827,200	56.3
Population 15 and over	3,730,300	100.0
Attending school	151,900	4.1
Having attended school in the past	611,300	16.4
Never having attended	2,967,100	79.5

As can be seen, the census showed that only 40.1 percent of the children in the 9-year age group, 6-14, were attending school. It also showed that 4.1 percent of the population 15 and over were attending school, but, of course, not all the 151,900 persons of this age group attending school were attending secondary or post-secondary schools.

The Ministry of Education reported that enrollment in the first 9 years of public elementary education in school year 1960 was 599,242. This figure is only 40.8 percent of the total number of children in the 9-year age group 6 through 14 (1,468,400) as reported in the census data. Before 1960 it had been estimated that enrollment in primary and middle schools was well over half the comparable school-age population. The Ministry reported that enrollment in the 5-year basic secondary school course (Forms I-V) in public secondary schools in school year 1960 was 11,173. This is only 2.1 percent of the population aged 15 through 19 (541,076) at the time of the census.

All figures available for the years between the census years 1960 and 1970 are ratios between actual enrollments and *estimates* of school-age population groups. Merely approximations, they do nevertheless suggest

<sup>5</sup> UNESCO, *Secondary Technical and Vocational Education in Underdeveloped Countries. Educational Studies and Documents*, Series B, No. 10, Paris: The Organization, 1959, p. 20.

that the ratios at the elementary level increased through 1965-66 and then declined to the 1970 level, while those at the secondary level continued to rise throughout the decade.

For the years 1960-61 through 1966-67, the Ministry of Education reported the following estimates of the percentage of children 6 through 14 attending primary and middle schools and the percentage of children 15 through 19 attending secondary schools.<sup>6</sup>

	<i>Percentage of children (6-14 years) attending primary and middle schools</i>	<i>Percentage of children (15-19 years) attending secondary schools</i>
1960	41.0	2.3
1960-61	42.9	2.6
1961-62	53.5	2.9
1962-63	59.4	3.5
1963-64	61.2	3.9
1964-65	72.2	4.5
1965-66	74.4	5.4
1966-67	71.8	5.2

The calculations were based on a provisional projection of the 1960 census data—a projection based on the assumption of low mortality and no net immigration—and, presumably, on actual enrollments in certain groups of school grades, which were not specified. The figures are thus estimates of the ratio between enrollments in certain grades and population in a comparable age group rather than the percentage of children within a specified age group enrolled in certain grades.

An independent attempt to determine the relationship between enrollments and comparable school-age population groups yields similar results. For the purposes of this attempt, it has been assumed that Ghana's population (6,726,815 in 1960) increased 2.5 percent each year (the estimated rate frequently cited in Ghanaian official publications) and that the age groups 5 through 14, and 15 through 19, constituted each year the same proportion of the total population they did in 1960, 25.3 percent and 8 percent, respectively. On this basis, estimates have been made of the number of children in each of these age groups each year. These estimates have been used to calculate the percentage that enrollment in all 10 grades in public primary and middle schools in each school year constituted of the estimated number of children in the 10-year age group 5 through 14 (the most comparable 10-year age group used in the census) that year; and, similarly, the percentage that enrollment in the basic 5-year secondary school course in public secondary schools each school year constituted of the estimated number of children in the comparable age group 15 through 19 that year. The results appear in the following tabulation:

<sup>6</sup> Republic of Ghana, Ministry of Education, *Education Report 1963-67*. Accra-Tema: Ghana Publishing Corporation, 1968? pp. 5, 8.

	<i>Enrollment in 10 years of public primary and middle schools: percentage of estimated population 5-14</i>	<i>Enrollment in Forms I-V in public secondary schools: percentage of estimated population 15-19</i>
1960	36.8	2.1
1960-61	38.8	2.9
1961-62	46.2	3.2
1962-63	54.1	3.9
1963-64	57.5	4.4
1964-65	68.7	5.2
1965-66	71.2	6.4
1966-67	69.1	6.3
1967-68	67.6	6.3
1968-69	65.7	6.5
1969-70	64.3	6.7

These Ministry estimates and the estimated figures above suggest that the ratio of public elementary school enrollments to a comparable population age group increased from roughly 40 percent in 1960 to more than 70 percent in 1965-66 before declining to about 64 percent in 1970, while the ratio of secondary school enrollments to a comparable age group increased from about 2 percent in 1960 to nearly 7 percent in 1970.

In 1970, according to census data for that year, the number and percentage of all persons in each of three age groups who were then attending school, had attended in the past, and had never attended were as follows:<sup>7</sup>

	<i>Number</i>	<i>Percent</i>
<i>Population 6-14</i> -----	<i>2,128,152</i>	<i>100.0</i>
Attending school -----	1,236,334	58.1
Having attended school in past -----	93,901	4.4
Never having attended school -----	797,917	37.5
<i>Population 15-24</i> -----	<i>1,459,186</i>	<i>100.0</i>
Attending school -----	383,193	26.3
Having attended school in past -----	482,297	33.1
Never having attended school -----	797,917	37.5
<i>Population 25 and over</i> -----	<i>3,084,162</i>	<i>100.0</i>
Attending school -----	8,813	.3
Having attended school in past -----	675,200	21.9
Never having attended school -----	2,400,149	77.8

As can be seen, 58 percent of all children aged 6 through 14 and 26 percent of all persons aged 15 through 24 were attending school. The proportion of children 6 through 14 going to school had increased from 40 percent in 1960 (as shown in the 1960 census data tabulation).

The approximate percentages that 1969-70 enrollments in various courses or grades within the public system constituted of the 1970 population of certain comparable age groups are listed below.

<sup>7</sup> Census data provided to the author in July 1972 by the Census Office, Central Bureau of Statistics, Republic of Ghana.

<i>School courses and population groups</i>	<i>Approximate percentage</i>
Enrollment in the first 9 years of elementary education for which nominal ages of attendance are 6-14, as percentage of population 6-14 <sup>1</sup> -----	63
Enrollment in 5-year secondary school course for which the nominal ages are 14-18, as percentage of estimated population 15-19 <sup>2</sup> -----	7
Enrollment in all courses following the 8-year elementary school course for which the nominal ages lie within or partly within the span 14-19, <sup>3</sup> as percentage of estimated population 15-19 <sup>2</sup> -----	34
Enrollment in all courses for which the nominal ages lie within or largely within the 10-year span 14-23, <sup>4</sup> as percentage of population 15-24 -----	17

<sup>1</sup> Enrollment—1,334,904; population 6-14—2,128,152.

<sup>2</sup> Estimated as 8 percent (685,000) of total population (8,559,313). This is the percentage that the age group constituted of total population in 1960.

<sup>3</sup> Middle Forms III and IV and Continuation Classes 1 and 2 (nominal ages 14-15), basic secondary and commercial school courses (14-18) and the sixth form (19-20), Certificate A (1-year) teacher-training course (16-19), courses in technical institutions (16-19).

<sup>4</sup> Courses listed in footnote 3 plus all other teacher-training and technical courses and all university courses.

The proportion of children of school age in school and the ratio between enrollment in a particular cycle and a comparable age group vary greatly within the country, for public schools facilities are not yet spread evenly throughout the country in relation to population.

#### *Regional Variations*

*In 1970-71.*—Table 13 shows the number of public schools of each type in each of Ghana's nine Regions in 1970-71 and also the number of pupils attending them that year. The comparatively small number of schools and pupils in the Northern and Upper Regions is readily apparent.

Since children generally attend primary and middle schools in the Region in which they usually live, the number of children attending primary and middle schools in a given Region as shown in the table may be taken as the approximate number of primary and middle school pupils whose homes are in that Region. Many children, however, attend secondary schools and other secondary-level institutions in a Region other than that in which they normally live, and a figure in the table showing enrollment in secondary schools in a Region may differ considerably from the number of children from the Region attending such schools throughout the country.<sup>5</sup>

<sup>5</sup> Detailed data for 1963-64 revealed that the number of children attending public secondary schools located in the Western, Central, and Northern Regions that year was larger than the number of public secondary school pupils whose homes were in those Regions. The opposite was true for the remaining 6 Regions. For example, the number and percentage of secondary school pupils who were attending school in the Central Region was more than twice the number and percentage of secondary school pupils whose homes were in that Region. Secondary students enrolled in schools located in the Northern Region constituted more than 3 percent of the national secondary school enrollment, but secondary students whose normal place of residence was the Northern Region constituted less than 2 percent of the national total. On the other hand, enrollment in Ashanti's secondary schools constituted only about 13 percent of the national public secondary school enrollment, but secondary school pupils whose homes were in Ashanti constituted about 19 percent of the total.

**Table 13.—Number of public schools and pupils, by level or type of school and Region: 1970-71**  
 [Number of pupils in thousands]

[... means that source indicated there were no schools or pupils.]

Region	Total	Primary	Middle	Secondary	Com- mercial	Teacher training	Technical
1	2	3	4	5	6	7	8
SCHOOLS							
Total .....	10,777	7,008	3,546	125	9	74	15
Western .....	1,123	753	348	17	0	5	3
Central .....	1,162	743	39	13	1	11	1
Eastern .....	2,048	1,309	699	21	2	16	1
Greater Accra .....	788	451	312	20	....	2	2
Volta .....	1,466	933	503	18	1	9	2
Ashanti .....	2,155	1,384	727	22	2	17	3
Brong Ahafo .....	1,045	687	342	10	....	5	1
Northern .....	387	310	68	3	1	4	....
Upper .....	603	438	154	5	....	5	....
PUPILS							
Total .....	1,476.4	947.5	442.3	52.9	4.3	19.5	11.0
Western .....	143.1	90.9	42.6	5.3	1.0	1.2	2.0
Central .....	165.5	105.6	49.3	5.8	.5	3.1	.2
Eastern .....	282.2	187.3	82.5	7.4	1.2	3.7	.2
Greater Accra .....	150.3	92.9	42.6	10.3	....	.6	3.8
Volta .....	186.7	117.9	58.0	6.9	.4	2.5	1.0
Ashanti .....	326.8	207.0	103.0	9.7	.5	4.7	2.0
Brong Ahafo .....	127.6	85.9	36.5	3.4	....	1.4	.4
Northern .....	40.6	26.6	10.9	1.2	.7	.9	.3
Upper .....	53.7	33.5	16.9	1.8	....	1.4	....

Note: Because of rounding, detail may not add to totals.

Source: Ghana, Ministry of Education. Education Statistics 1970/71. Processed.

The following tabulation shows the percentage that the 1970-71 enrollments in public primary, middle, and secondary schools, respectively in each Region (presented in table 13) constituted of that Region's total 1970 population.

	Primary	Middle	Secondary
Ghana .....	11.07	5.17	.62
Western .....	11.80	5.53	.69
Central .....	11.86	5.54	.76
Greater Accra .....	10.91	5.00	1.22
Eastern .....	14.84	6.54	.59
Volta .....	12.44	5.28	.72
Ashanti .....	13.97	6.95	.66
Brong-Ahafo .....	11.20	4.76	.45
Northern .....	3.65	1.50	.16
Upper .....	3.89	1.96	.12

With a few exceptions, each of six Regions in the southern half of the country—Western, Central, Greater Accra, Eastern, Volta, and Ashanti—had a higher percentage of its total population enrolled in each of the three levels of schools than did the country as a whole. There were three exceptions. The percentage of the population enrolled in both primary and middle schools in the Greater Accra Region, and the percentage of the population enrolled in secondary schools in the Eastern Region were slightly below the national average. Unexpectedly, the noncoastal Ashanti and Eastern Regions had a higher percentage of their population enrolled in primary and middle schools than any other Region. At the secondary level the Greater Accra Region had an enrollment-population ratio that was twice the national average and higher than that of any other Region.

The Brong-Ahafo Region had a higher percentage of its population enrolled in primary schools but a notably lower percentage of its population in middle and secondary schools than the country as a whole. It appears to occupy a unique educational position.

In striking contrast to the six southern Regions, the Northern and Upper Regions had enrollment-population ratios at all three school levels that fell far below the national average. While Ghana had about 11 percent of its total population in primary schools, about 5 percent in middle schools, and 0.6 percent in secondary schools, each of these Regions had less than 4 percent of its population in primary schools, less than 2 percent in middle schools, and less than 0.2 percent in secondary schools.

*Changes Since 1951.*—The great expansion of the system that occurred since self-government in 1951 affected the geographical distribution of school facilities and the educational opportunities and school attendance in various parts of the country. The figures in table 14 show the distribution of the general population and of pupils in primary, middle, and secondary schools among the Regions of the country in selected years.

To interpret table 14, it must be remembered that in 1952 the Gold Coast was divided into four administrative areas: The Colony, the broad area along the coast (now divided into the Western, Central, Eastern, and Greater Accra Regions); Trans-Volta Togoland; Ashanti, the area to the north of the Colony (now divided into the Ashanti and Brong-Ahafo Regions); and the Northern Territories, which covered approximately the northern half of the country (now the Northern Region, the Upper Region, and a part of the Brong-Ahafo Region). One can say with justification that there were two distinct educational spheres: The area encompassing the Colony, Ashanti, and Trans-Volta Togoland, within which there were still marked differences, and the Northern Territories. The differences between them were certainly a result of the chronological progression of western contact from the coast to the North, varying degrees of social change, and varying local reactions to western education.





Volta .....	17.1	15.5	8.0	15.9	15.3	12.2	12.4	13.1	13.0	12.0	11.6	11.1
Ashanti .....	26.8	27.5	8.1	26.6	29.2	18.0	21.8	23.3	18.4	14.0	16.5	17.3
Brong-Ahafo .....	2.0	1.3	.7	5.8	3.9	3.4	9.1	8.2	6.5	6.0	8.7	9.0
Northern .....							2.8	2.5	2.3	9.2	7.9	8.5
Upper .....							3.5	3.8	3.4	16.0	11.3	10.1

<sup>1</sup> Actual school year.

<sup>2</sup> Census year.

<sup>3</sup> Includes unassisted secondary schools. The source did not present enrollment in public (Government and assisted) schools by Region. The total in this column includes 1,976 in unassisted schools.

<sup>4</sup> Excludes 6,770 non-Africans and 332 persons not accounted for and not shown by Region.

<sup>5</sup> The figure is for the former Western Region, which was later divided into the Western and Central Regions.

<sup>6</sup> The figure is for the Colony, as constituted in 1952. This area was later divided into the Western, Central, Eastern, and Greater Accra Regions.

<sup>7</sup> The figure is for the former Eastern Region, which was later divided into the Eastern and Greater Accra Regions.

<sup>8</sup> The figure is for Trans-Volta Togoland, which was later renamed the Volta Region.

<sup>9</sup> The figure is for Ashanti, which was later divided into the present Ashanti and Brong-Ahafo Regions. The latter also includes a small portion of the former Northern Region.

<sup>10</sup> The figure is for the then Northern Territories.

<sup>11</sup> The figure is for the then Northern Region (previously known as the Northern Territories). The Northern Region included the present Northern and Upper Regions and a small portion of the present Brong-Ahafo Region.

Note: Because of rounding, detail may not add to totals.

Sources: (1) Population data: Ghana, 1964 Statistical Year Book. Accra: Central Bureau of Statistics, 1967. pp. 6, 8. Ghana, Census Office, Central Bureau of Statistics. Provisional Census Results Summary. Mar. 9, 1972. Processed. (2) Enrollment data: Gold Coast Government. Annual Report of the Education Department for the Year 1952. Accra: Government Printing Department, 1954. pp. 41, 42. Ghana, Office of the Government Statistician. Education Statistics 1959. Accra: The Office, 1959. pp. 11, 12, 33. Ghana, Ministry of Education. Education Statistics 1970/71. Processed.

In 1952, the Colony, reported as having approximately 42 percent of the population in 1948, had about 54 percent of all public primary, 56 percent of all public middle, and 83 percent of all reported secondary school pupils enrolled in its schools.

Ashanti, reported as having 20 percent of the population in 1948, had about 27, 28, and 8 percent, respectively, of the country's primary, middle, and secondary school pupils in its schools. As well provided with elementary school places in relation to its population as the Colony, its percentage of secondary school places was less than half its percentage of the country's total population while that of the Colony was almost twice its percentage of total population.

The educational situation in Trans-Volta Togoland was similar to Ashanti's. Falling into an entirely different category, the Northern Territories, reported as having 25 percent of the total population in 1948, had 2 percent of the primary, 1.3 percent of the middle, and less than 1 percent of the country's secondary school students in its schools.

The available data suggest that with the development of the public educational system since self-government in 1951 the coastal area's percentage of national enrollments has declined while those of all other areas have increased. The differences between the coastal area (the former Colony, now the Western, Central, Eastern, and Greater Accra Regions) and the area to its north (former Ashanti, now divided into the Ashanti and Brong-Ahafo Regions) have been largely smoothed out. In 1970 the coastal area, with 44 percent of the population, enrolled 50 percent of all Ghana's public primary school pupils, 49 percent of her public middle school pupils, and 57 percent of her public secondary school pupils. The Ashanti and Brong-Ahafo Regions together, with 26 percent of the population, had about 31, 32, and 25 percent, respectively, of the country's primary, middle, and secondary school students in their schools. This area was still as well supplied with elementary school places in relation to its population as the coastal area. Secondary education had expanded rapidly, and by 1970 the Ashanti and Brong-Ahafo Regions together, although still not as well supplied with secondary school places in relation to population as the coastal area, had almost the same percentage of the country's public secondary school enrollments as of its general population.

In 1970 the Northern and Upper Regions—roughly the northern half of the country—together had 19 percent of the total population, but enrolled only 6.3, 6.3, and 5.7 percent, respectively, of the country's primary, middle, and secondary school pupils. This area, which, together with part of the Brong-Ahafo Region, continued to receive special financial assistance for education from the Central Government, had enjoyed a very rapid rate of educational expansion, and its share of total school enrollments had increased considerably since 1951. Nevertheless, the very great disparity between school attendance in this far northern part of the country and in the rest of the country remains.

A 1963-64 social survey of the University of Ghana student body showed that at the time the number of students per 100,000 of the general population attending the university for each of eight Regions was as follows:<sup>9</sup>

Ashanti -----	38.6
Eastern -----	37.2
Volta -----	35.2
Central -----	20.5
Brong-Ahafo -----	19.5
Western -----	17.1
Northern -----	2.1
Upper -----	1.8

These figures made it clear that a young person from the Northern and Upper Regions had a very much smaller chance of reaching the university than one from the other Regions.

Probably due largely to the greater rate of social and economic change and urbanization in the South than in the North, the great gap between North and South seems one of the most persistent characteristics of Ghanaian education and one unlikely to disappear for many years. The southern people—the Akan, including the Fanti and Ashanti, the Ga, the Ewe, and others—have and probably will have for a long time much higher school attendance rates than the people belonging to the northern language groups.

#### *Variations by Background and Sex*

The available research evidence suggests that those who have entered secondary schools and the universities (most of whom have, of course, been from the South rather than the North) have come from a surprisingly broad spectrum of socioeconomic family backgrounds.

Professor Philip Foster's analysis of the data he collected in his large-scale empirical survey of 23 public secondary schools in 1961<sup>10</sup> shows that children of educated fathers, those holding professional and other highly classified occupations, and those residing in urban areas made up a disproportionately high percentage of the Form V classes. Although professional, higher technical, and clerical workers constituted only 7 percent of the adult male labor force, 40.3 percent of the Form V students (34 percent of the males and 66 percent of the females) were children of men in this occupational category.<sup>11</sup> Similarly, children of educated fathers con-

<sup>9</sup> "Vice-Chancellor's Address to Congregation on 27th March, 1965." *Annual Report by the Vice-Chancellor for 1964-65*. University of Ghana, p. 99.

<sup>10</sup> Philip Foster, *Education and Social Change in Ghana*. Chicago: The University of Chicago Press, 1965, pp. 240-48.

<sup>11</sup> Another researcher who conducted a survey of male Form V students in 1968 found that 27.3 percent of them were children of fathers employed in professional, administrative, and other white collar occupations. David A. Shiman, "Selection for Secondary Schools in Ghana: The Problem of Choosing the Most Capable," *West African Journal of Education*, XV:3:174, October 1971.

stituted a considerably larger proportion of the student bodies than educated men did of the adult male population, and children born in urban areas constituted a considerably larger proportion of the student body than did those living in urban communities of the general Ghanaian population.

But his most striking finding was the degree to which children from rural backgrounds and low levels of parental occupation and education were represented in the student bodies of the selective academic secondary schools. Of the Form V students in the sampled schools at that time, 32.5 percent (37.4 percent of the boys and 12.2 percent of the girls) were children of farmers and fishermen (a category that constituted 62.8 percent of the adult male labor force), 27.6 percent (32.4 percent of the boys and 7.9 percent of the girls) were children of fathers who had no formal education (a category that constituted 78.8 percent of the adult male population), and 34.7 percent (38.1 percent of the boys and 20.7 percent of the girls) were born in small rural communities with populations of less than 5,000.

The survey of the 1963-64 University of Ghana student body referred to above showed that the fathers of about 63 percent of these university students were in occupations within the category "farmer, fisherman, or not working" and that the fathers of about 19 percent were "draftsmen or builders," while the fathers of only 3.8 percent were traders and storekeepers and of only 1.5 percent were professional and technical personnel. As the vice chancellor pointed out as he presented these findings, the survey did not indicate how many of the "farmers" were well-to-do cocoa farmers.

The survey also revealed that nearly 30 percent of the fathers and 60 percent of the mothers of the students had never attended school. Only 24 percent had fathers and only 5.6 had mothers who had attended a secondary school.

Although the higher institutions have recruited their students from a broad spectrum of society, there are—and always have been—marked differences between female and male school attendance rates, and the differences become greater at each succeeding (higher) cycle of the public system. In 1971-72 about 44 percent of the primary and 40 percent of the middle school pupils were girls, but they made up only about 29 percent of all students beginning the basic general secondary school course (Form I students) and 25 percent of those completing it (Form V students), and a mere 14 percent of all students beginning the Sixth Form. The same year there were 632 women among the 5,063 students in Ghana's three universities. They accounted for less than 13 percent of the total.

## II. THE PUBLIC PYRAMID: ENROLLMENTS, FLOW, AND OUTPUT

### Student Distribution in the Public System

As of 1971-72 the public system consisted of almost 11,000 schools enrolling more than 1.5 million students distributed as follows:

	Schools	Students	Percent
<i>Total</i> -----	10,624	1,509,846	100.0
Primary -----	6,715	960,403	63.6
Middle -----	3,608	455,398	30.2
General secondary -----	139	56,801	3.8
Commercial secondary -----	9	4,615	.3
Technical -----	15	8,345	.6
Teacher training -----	74	19,221	1.3
Universities -----	3	5,063	.3

At this time 94 percent of all students attending institutions within the public educational system were in elementary (primary and middle) schools, about 6 percent in general secondary, commercial, technical, and teacher-training institutions, and 0.3 percent in the universities.

Over two decades the percentage of students in elementary schools had declined somewhat while the percentage in general secondary and all other institutions had increased somewhat, as the following tabulation indicates.

	1951	1957	1965-66	1971-72
<i>Total</i> -----	100.0	100.0	100.0	100.0
Elementary -----	97.5	97.0	95.5	93.8
Primary -----	68.2	77.4	77.3	63.6
Middle -----	29.3	19.7	18.2	30.2
Secondary -----	1.3	1.7	2.9	3.8
Commercial -----	-----	-----	-----	.3
Technical -----	.3	.5	.3	.6
Teacher training -----	.8	.7	1.0	1.3
Universities -----	.1	.1	.3	.3

Obviously this is a system consisting of a broad base of elementary education, a restricted secondary structure, and an even narrower spire of higher education. It is a highly selective system in which only a small percentage of students completing one level could possibly go on to the next. At three levels or points in the structure—the upper elementary level, the end of the basic secondary course, and the end of the Sixth Form—a minority of the students are chosen through selection or other

examinations to proceed to the next level, while most of the remainder must leave school.

Official Ghanaian reports refer to the system as an "unbalanced" system in which secondary education is the bottleneck. It has been said that this unbalanced system was one of the consequences of the great expansion of education before 1966—that during the early 1960's expenditures on secondary education had declined while those on elementary education and higher education had increased. It would seem that in fact expenditures on secondary education had always been comparatively small and that the system had always been unbalanced and was—in terms of percentages and ratios alone—less so as of 1965-66 than in the earlier years. The ratio of enrollments in secondary schools to enrollments in all public schools and the ratio of enrollment in Secondary Form I to enrollments in upper elementary grades were higher in 1965-66 than in previous years. With the expansion of elementary education, however, much greater numbers were coming up through and out of the elementary system unable to obtain places in secondary-level institutions. The pressures were greater. The problem became clearer.

A more detailed analysis of the flow of students through and out of the system confirms that the elementary-secondary juncture is the area of major pressure, but it also reveals several other important problems.

## Student Flow in Pre-University General Education

### *Elementary School Wastage*

Analysis of the detailed statistics showing national enrollment in each grade of the elementary course, which appear in table 15, seems to lead inevitably to the conclusion that wastage at the elementary level has been a continuing and perhaps an increasingly serious problem. Based on these statistics, the tabulation below shows for the cohort passing through the elementary course in each period the approximate<sup>1</sup> percentage of the original Primary Class 1 group who did *not* reach the second, sixth, seventh, and eighth years of the course at the appropriate time.

Figures for the more recent periods suggest that about 19 percent of the children who begin school do not go on to the second year. Wastage at this point has consistently been greater than at any other point. There have been times when one-fourth or more of the first grade children did not proceed to the second year. More moderate numbers drop out or repeat in each of the following grades with the result that more than 45 percent of the students who begin school do not reach the sixth year of elementary

<sup>1</sup> Approximate because those who were enrolled in the 2d, 6th, 7th, and 8th years probably included some repeaters as well as members of the original primary class 1 group.

Period of 8 school years	Approximate % of pupils enrolled in 1st grade of the elementary course in the first year of the period who did not reach—			
	2d gr. in 2d year of period	6th gr. in 6th year of period	7th gr. in 7th year of period	8th gr. in 8th year of period
1957—1963-64	28.7	44.7	47.2	51.3
1958—1964-65	26.5	39.0	44.2	41.4
1959—1965-66	27.2	39.3	34.3	40.0
1960—1966-67	23.8	29.6	33.8	37.9
1960-61—1967-68	23.2	29.5	38.9	41.8
1961-62—1968-69	16.8	35.1	48.1	51.0
1962-63—1969-70	24.2	32.2	37.0	32.7
1963-64—1970-71	13.6	31.7	37.5	52.8
1964-65—1971-72	13.3	41.1	33.2	55.9
1965-66—1972-73	22.7	47.4	32.2	
1966-67—1973-74	22.2	39.0		
1967-68—1974-75	22.8			
1968-69—1975-76	18.9			
1969-70—1976-77	18.9			
1970-71—1977-78	15.8			

education at the expected time, having either dropped out of school or repeated. Another 10 percent of the original Primary Class 1 group do not proceed from grade 6 to grade 7. Wastage at this point—the juncture of the 6-year primary school and the 4-year middle school, which gives the seventh and eighth years of the 8-year elementary course—is greater than at any other point except the one between grades 1 and 2, and it has increased in recent years. (About 85 percent of Primary Class 6 pupils go on to Primary Class 7; the percentage was 80 percent or less before the implementation of fee-free middle school education in 1961-62 and 94 to 96 percent immediately afterwards.) More than half the children who begin school do not reach the eighth year at the appropriate time 7 years later. Since very few students are selected for secondary school before the eighth year, this figure must represent mainly those who have dropped out or repeated.

The figures suggest also that although wastage between grade 1 and 2 is no longer as high as it once was, overall wastage rates during the first 6, 7, and 8 years of elementary education have been increasing rather than decreasing in recent years.

Still under investigation, the reasons are not yet clear for the high drop-out rate. These reasons might include such factors as an unmeaningful curriculum and decisions by parents in some areas to withdraw their children so that they can perform some economic activity.

#### *The Secondary School Bottleneck and Middle School Leaver Problem*

The overwhelming majority of students who do reach the eighth year of elementary education (Primary Class 8 or Middle Form II) are, and always have been, destined to pass on through the middle school to the



Table 15.—Number of pupils in public primary, middle, and secondary schools, by grade: Schools years 1957—1971 72

Grade	1957	1958	1959	1960	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Primary 1	115,867	115,282	119,958	123,407	138,877	231,784	256,748	253,693	274,500	272,077	221,559	214,115	199,263	203,692	207,885	215,048
Primary 2	79,329	82,556	84,724	87,275	94,087	106,608	192,836	194,589	219,199	224,172	202,096	176,768	167,526	161,660	165,262	175,053
Primary 3	70,801	72,414	74,599	77,128	83,218	89,395	103,221	168,193	196,991	203,882	195,564	182,530	162,525	154,539	149,570	158,007
Primary 4	66,563	65,889	68,110	70,163	74,968	79,486	87,694	99,985	178,070	182,579	183,495	178,428	167,831	151,839	142,216	142,103
Primary 5	62,380	60,376	60,444	62,377	67,160	70,460	77,323	82,086	109,632	156,931	165,952	164,475	162,178	153,433	139,571	134,967
Primary 6	60,809	58,536	57,455	57,792	61,716	64,037	70,266	72,834	86,859	97,854	148,167	156,207	156,143	153,951	142,998	137,259
Primary 7																
(Middle Form II)	35,724	41,849	43,693	43,966	45,891				8,787	8,932	84,901	104,463	104,463	104,463	104,463	129,872
Primary 8																
Middle Form III	30,451	33,611	30,644	40,418	41,416											
Middle Form IV	26,116	27,688	31,399	36,716	38,414											
Middle Form V	23,470	23,145	26,297	26,419	31,760											
Secondary Form I	2,125	2,250	2,416	2,714	4,754	5,242										
Secondary Form II	2,113	2,276	2,339	2,431	3,848	4,234	6,323	7,597	10,080	9,171	9,281	9,723	10,938	12,293		
Secondary Form III	1,947	2,050	2,203	2,267	2,956	3,565	4,710	5,506	6,629	7,818	8,676	9,405	9,284	9,309	9,717	10,754
Secondary Form IV	1,781	1,825	1,955	2,031	2,455	2,823	3,537	4,243	5,322	7,179	6,836	7,816	8,699	8,727	8,818	9,167
Secondary Form V	1,463	1,535	1,568	1,730	2,113	2,241	2,767	3,146	3,954	4,966	5,852	6,147	7,132	7,800	7,869	7,950
Secondary Form VI																
Lower														1,093	1,174	1,326
Upper																
Secondary Form VI		431	487	630	701	451	957	1,074	1,293	1,662						
Upper														809	1,000	1,131
																1,280
																1,318
																1,651
																1,701

Sources: Ghana, Ministry of Education. Education Report for the Year 1957. Accra: Government Printer, 1960. p. 12. Republic of Ghana, Ministry of Education. Educational Statistics 1968-69. Accra: 1971. pp. 77, 78. Ghana, Ministry of Education. Education Statistics 1967/68. Processed. Ghana, Ministry of Education. Education Statistics 1969/70. Processed. Ghana, Ministry of Education. Education Statistics 1970/71. Processed. Ghana, Ministry of Education. Digest of Educational Statistics—1971/72. Processed. Ghana, Ministry of Education. Education Statistics 1968. Accra: Office of the Government Statistician, 1969. p. 202.

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end of Middle Form IV, take the Middle School Leaving Certificate examination and then leave school forever. Ghana's public secondary schools have never been able to take in more than a small percentage of the students who reach secondary entry level and presumably seek admission to a secondary program that has always been the pathway to the university and the most advantageous positions in society. There is no question that secondary education is and has been the bottleneck in the system and the juncture between the upper elementary grades and secondary education the area of greatest pressure within the system.

*The elementary-secondary juncture.*—Since students have been selected for secondary school entrance from Middle Forms II, III, and IV and also, in recent years, from Primary Class 6 and Primary Class 7 (Middle Form I) in certain schools, and since there has thus been no single juncture between the elementary and secondary structure, it is impossible to calculate the customary simple ratio between first year secondary enrollment and final year elementary school enrollment. But there are other ways of measuring the large gap between public elementary and public secondary school facilities and between the pressures and demand for secondary education and the supply.

One of these ways is to relate Form I enrollment in public secondary schools to (1) the enrollment the previous year in one of the grades—for example, Middle Form II—in which students have taken the Common Entrance Examination for admission to secondary schools, or to (2) enrollment in the three grades, Middle Forms II, III, and IV, in which most students have taken the examination. The first tabulation on the next page shows the number of students in Form I of public secondary schools in each of the years 1952—1971-72 as a percentage of the number of students in Middle Form II in public schools the previous year and as a percentage of the total number of students in Middle Forms II, III, and IV in public schools the previous year.

A more precise method of relating public secondary school facilities to pressures for secondary education is to compare the number of students actually admitted to Form I of public secondary schools in a given year with the number of students who took the Common Entrance Examination the previous year and thus actively sought admission to secondary school and technical institutions within the public system. The second tabulation on the next page presents such figures for most of the school years 1958 through 1970-71.

Probably about 70,000 took the examination late in school year 1970-71 and about 13,000—or 19 percent of that figure—entered secondary school in 1971-72. In recent years less than one-fifth of the students actively seeking admission by taking the entrance examination have found first year places in the public secondary schools.

As the tabulations show, the ratio of public secondary Form I places to the number of potential candidates enrolled in upper elementary grades

	Secondary Form I enrollment	Previous year enrollment in—		Secondary Form I enroll- ment as percent of previ- ous year enrollment in—	
		Middle Form II	Mid- dle For- m II, III	Middle Form II, III, IV	Middle Forms II, III, IV
1952	74	18,616	4,707	4	1.7
1953	80+	21,627	5,407	8	1.5
1954	1,017	24,985	6,154	4.1	1.6
1955	1,325	26,167	69,737	5.1	1.9
1956	1,805	26,845	74,734	5.7	2.4
1957	2,121	27,814	76,226	7.6	2.8
1958	2,250	30,377	80,197	7.4	2.8
1959	2,704	32,641	83,464	7.4	2.9
1960	2,714	39,595	96,191	6.9	2.8
1960-61	4,754	40,418	103,553	11.8	4.6
1961-62	5,242	41,416	111,792	12.7	4.7
1962-63	5,059	47,843	126,158	13.7	4.8
1963-64	7,152	56,048	141,371	12.8	5.1
1964-65	7,967	56,373	144,395	14.1	5.5
1965-66	10,166	67,534	172,838	15.0	5.7
1966-67	9,034	71,950	185,758	12.6	4.7
1967-68	8,904	76,629	195,965	11.6	4.5
1968-69	9,501	80,870	209,370	11.7	4.5
1969-70	10,654	113,577	250,600	9.4	4.3
1970-71	12,133	121,456	291,091	10.0	4.2
1971-72	13,059	129,687	313,706	10.9	4.2

	Secondary Form I enrollment	Number who took Common Entrance Exam- ination the previous year	Secondary Form I enrollment as percent of number who took examination
1958	2,250	24,660	9.1
1959	2,416	14,450	16.7
1960	2,714	14,500	18.7
1960-61	4,754	12,820	37.1
1963-64	7,152	29,654	24.1
1964-65	7,967	31,811	25.0
1965-66	10,166	45,075	22.6
1966-67	9,034	63,292	14.3
1967-68	8,904	57,758	15.4
1968-69	9,501	49,385	19.2
1969-70	10,654	61,162	17.4
1970-71	12,133	66,818	18.2

and the ratio of these places to those actively seeking admission have always been small and have not varied greatly. It may also be noted that the ratios did increase with the expansion of secondary education in the early 1960's and were higher in the years immediately preceding the coup of 1966 than in subsequent years when secondary school entry actually

declined (1966-67 and 1967-68) and in the still later years when the much larger waves of elementary students—those who completed primary school with the initial goal of “free compulsory” primary and middle school education in 1962 or afterwards—reached secondary school entry level (at the beginning of school years 1969-70 and 1970-71).

The *absolute number* of students coming up through the upper elementary grades had increased steadily year by year, however, and virtually exploded as a result of the earlier expansion of primary and middle school education. At independence (1957) some 80,000 students were enrolled in Middle Forms I, II, and IV. By 1970 the number exceeded 300,000. The percentage of the total population, the absolute number of potential candidates for secondary school places increased steadily. The number of students who actively sought admission to a secondary school by taking the Common Entrance Examination and apparently did *not* gain admission—a number which had exceeded 24,000 a year until 1965-66—reached about 57,000 in the beginning of school year 1970-71 and probably exceeded 57,000 in the following year. This growth in absolute numbers increased the pressures on the public secondary school structure and undoubtedly supported the growth of private secondary schools. It also brought a new dimension to Ghana's long-existing problem of the middle school leaver.

*Middle school leavers*—The number of students not previously selected for secondary school entry who reach Middle Form IV, complete it, and take the Middle School Leaving Certificate examination spiraled upward as a result of the earlier expansion of primary and middle school education, as the following tabulation shows.

	<i>Public Middle Form IV enrollment</i>	<i>Number taking Middle School Leaving Certificate Examination</i>
1957	23,440	23,924
1958	23,145	<sup>1</sup> 19,568
1959	27,297	25,915
1960	28,419	28,555
1960-61	31,760	34,063
1961-62	37,626	38,747
1962-63	40,687	40,426
1963-64	47,358	42,052
1964-65	49,863	49,654
1965-66	51,058	51,766
1966-67	57,418	53,967
1967-68	57,694	60,235
1968-69	60,520	63,306
1969-70	65,155	-----
1970-71	84,453	-----
1971-72	21,576	-----

<sup>1</sup> Excluding other examinations.

Since only a small proportion of these Middle Form IV students go on to teacher-training colleges or, after taking the Common Entrance Examination, to public secondary schools or technical institutes, the figures, at least those for recent years, may be taken as the approximate number who leave school forever after completing Middle Form IV to seek employment.

In 1957 not more than 25,000 young people were leaving school after completing the 10th year. The number increased to more than 31,000 in 1960-61, the year those who first entered free primary education in 1952 reached the 10th year of elementary education. The number rose to almost 50,000 in 1964-65, the fourth school year of free middle school education, and to almost 85,000 in 1970-71, the 10th year of elementary education for the much larger primary group that entered Primary Class I in 1961-62 with the initiation of "free-free compulsory" education. If recent patterns of flow through the middle school continue (70 to 77 percent of Middle Form I enrollees reaching Middle Form IV), 90,000 to 100,000 children can be estimated as reaching this level each year during the period 1971-72 through 1973-74.

The increasing outpouring of middle school leavers, most of whom have received only a general or academic elementary education, has created serious employment and social problems. Probably there was a time when the smaller number of graduates of the middle school were easily absorbed into white-collar jobs in the modern urban wage-earning sector of the economy, but that is now long past. Reporting in 1967, the Education Review Committee noted, "There is no longer much demand for this level of manpower." But many of the middle school leavers have continued to drift to the towns looking for jobs despite high existing urban unemployment. Many remain unemployed and have accounted for a good portion of the unemployed urban dwellers. Why do they go? According to the Education Review Committee: "The education they have received is not oriented towards productive employment. There is a tradition that anyone who has been to school should be able to get a 'white collar' job and consequently these young people drift to the towns in search of the kind of work they think they are suited for." The *Two-Year Development Plan* published in 1968 explained:

One of the main reasons for the present high level of unemployment in the towns is the disparity between rural and urban incomes. As long as the lowest urban wage exceeds substantially the income of most of those in the rural economy, the drift to the towns will continue unabated even in the face of mounting urban unemployment. Higher rural incomes will go far to ease the unemployment problem. During the Plan period the Government's efforts will be directed towards improving the standard of living in the rural areas. . . . In this way the incentive to migrate to the urban areas and the problem of unemployment will become less intractable.

<sup>2</sup> Republic of Ghana, *Two-Year Development Plan*, . . . Accra-Tema: State Publishing Corporation, 1968, p. 80.

It would appear that the solution lies basically in such radical changes in the rural environment that the young person leaving school after grade 10 sees that he can make a good living there and chooses to remain. Reforms in the curriculum of the 9th and 10th years—one response to the existing unemployed middle school leaver problem—cannot alone be expected to provide a solution.

#### *Basic Secondary Course and Ordinary-Level Examination Performance*

It would appear from the enrollment statistics (table 15) that a fairly high percentage of students who have been selected and admitted to public secondary schools have proceeded through the 5-year basic secondary course to Form V, a few of them repeating along the way. Enrollment in Form V in public schools in 1970-71 was 87 percent of enrollment in Form I in 1966-67; apparently about that percentage of the students who started the course in the latter year reached the final year in 1970-71. The comparable percentages for the four preceding cohorts, those who began in 1965-66, 1964-65, 1963-64, and 1962-63, were 77, 90, 86, and 97 percent, respectively. The remainder of the students apparently repeated or dropped out. Probably most of them were dropouts, for repeaters are not numerous—they made up only 3 percent of basic secondary school course enrollments in both 1969-70 and 1970-71. Evidently most of the students reaching Form V have taken the final Ordinary-Level external examination.

It appears, however, that over a considerable period of time less than 40 percent of the public secondary school Form V candidates taking the examination at Ordinary-Level each year have performed well enough to earn a certificate on the basis of which they might be selected for further courses of study. Table 16 shows the performance of public secondary school candidates in the School Certificate examination in the years 1968 through 1964 (and also the performance of candidates from the smaller number of schools classified by the West African Examinations Council as "recognized" schools). Table 17 presents available data concerning the performance of students from public and "recognized" schools in the General Certificate of Education Ordinary-Level examinations in the years 1965 through 1969.

The entry requirement for the Sixth Form has been five subjects, including English language, passed at General Certificate of Education Ordinary-Level (passed with credit in the School Certificate examination) and a low aggregate mark in the five subjects. According to one 1971 report, most Sixth Forms have required an aggregate of 20 or less. As of 1972 the maximum aggregate was 23 for boys and 25 for girls. Only the following can meet these requirements: Those awarded a Division I School Certificate, which requires 5 passes with credit and an aggregate in 6 subjects not exceeding 20, some of those awarded a Division II School Certificate

**Table 16.—Number and percent of students from public secondary schools and from "recognized" schools taking the School Certificate examination who were awarded Division I, Division II, and Division III Certificates and who were not awarded Certificates: 1958-64.**

[... means source gave no figure.]

Year	Number taking examination	Students awarded School Certificates								Students not awarded Certificates	
		Total		Division I		Division II		Division III		Num-ber	Per-cent
		Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent		
<b>PUBLIC SECONDARY SCHOOLS</b>											
1958	1,498	978	65	176	12	413	28	389	26	520	35
1959	1,530	975	64	160	10	402	26	413	27	555	36
1960	1,727										
1961	1,852	1,190	64	242	13	464	25	484	26	662	36
1962	2,123	1,335	63	242	11	499	24	594	28	788	37
1963	2,639	1,787	68	328	12	626	24	833	32	852	32
1964	3,120	2,152	69	467	15	748	24	937	30	968	31
<b>"RECOGNIZED" SCHOOLS</b>											
1958	1,356	916	68	174	13	391	29	351	26	440	32
1959	1,495	954	64	161	11	396	27	397	27	541	36
1960	1,553	1,031	66	204	13	423	27	404	26	522	34
1961	1,778	1,182	66	243	14	455	26	484	27	596	34
1962	2,012	1,332	66	242	12	506	25	574	29	690	34
1963	2,457	1,737	72	330	14	621	26	786	33	670	28
1964	2,859	2,119	73	475	16	742	26	902	31	770	27

<sup>1</sup> A classification used in West African Examinations Council reports.

<sup>2</sup> The examination for the West African School Certificate in 1958 and 1959, the examination for the School Certificate of the West African Examinations Council in the years 1960-62, and the Joint Examination for the School Certificate and the General Certificate of Education of the West African Examinations Council in 1963 and 1964.

NOTE.—Because of rounding, detail may not add to totals.

SOURCES: (1) For public secondary school students: Ghana, Ministry of Education, *Education Report for the Years 1959-1960*, p. 67. *Education Report 1960-61*, p. 18. *Education Report 1963-67*, p. 80. *Educational Statistics 1968-69*, p. 89. (2) For "recognized" school students: The West African Examinations Council, *School Examinations in West Africa 1954-1959; A Statistical Summary*, p. 5. *Annual Report for the Year Ended 31 March 1958*, p. 12. *Annual Report for the Year Ended 31 March 1964*, p. 52. *Annual Report for the Year Ended 31 March 1965*, pp. 58, 59, 61.

... certificate, which requires 4 passes with credit and an aggregate not exceeding 28, and *some* of those who pass 5 or more subjects in the General Certificate of Education examination. Table 16 shows that during the period from 1958 through 1964 the proportion of public secondary school candidates who obtained Division I School Certificates ranged between 10 and 15 percent and the proportion who obtained Division II Certificates between 24 and 28 percent. Judging by the limited available data for 1965 through 1969, only about 25 percent of the candidates each year passed in five or more subjects. Probably less than one-fourth of the students completing the basic secondary school course have performed well enough to gain admission to a Sixth Form.

**Table 17.—Number and percent of students from public secondary schools and from "recognized" schools taking the General Certificate of Education Ordinary-Level examination who passed in five or more subjects and in four or more subjects: 1965-69**

[... means source gave no figure.]

Year	Number taking examination	Students passing								
		5 or more subjects		4 or more subjects including English and mathematics		4 or more subjects including English		4 or more subjects		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
1	2	3	4	5	6	7	8	9	10	
<b>PUBLIC SECONDARY SCHOOLS</b>										
1965	3,984	.....	....	598	15	1,122	28	1,729	43	
1966	4,946	.....	....	633	13	1,214	25	1,943	39	
1967	6,370	1,620	25	.....	....	.....	....	2,326	37	
1968	6,207	.....	....	.....	....	.....	....	2,234	36	
1969	7,157	.....	....	.....	....	.....	....	2,760	39	
<b>"RECOGNIZED" SCHOOLS</b>										
1968	6,247	1,555	25	.....	....	.....	....	.....	....	
1969	7,132	1,902	27	.....	....	.....	....	.....	....	

Sources. Republic of Ghana, Ministry of Education. *Education Report 1963-67*. Accra: 1968? p. 80. *Educational Statistics 1968-69*. Accra: 1971. pp. 88, 89. Sarah French and T. A. Boyd. *An Enquiry Concerning Employment Opportunities for Secondary School Leavers in Ghana*. Cape Coast: University Press, 1971. University of Cape Coast Social Studies Project. Research Report Series Paper No. 6. p. 15.

Requirements for admission to other post-Ordinary-Level courses have varied considerably, but passes at Ordinary-Level in four subjects have not been an unusual requirement. Table 17 shows that in most of the years from 1965 through 1969, the proportion of public secondary school candidates taking the General Certificate of Education examination who passed any four or more subjects at Ordinary-Level—a proportion including those qualified for Sixth Form admission—was less than 40 percent. Evidently in most years less than two-fifths of the students completing the basic 5-year secondary course performed well enough to continue their studies in any full-time program.

#### *Form V-VI Juncture*

The juncture between Form V on the one hand and Sixth Form and other post-Ordinary-Level courses on the other, like that between elementary and secondary education, constitutes a major break in the structure and an area of pressure. Most Form V students would like to continue in a program of full-time studies and many of them would prefer the Sixth Form, the pathway to university degrees and the positions to which they can lead. Fewer than half of Form V graduates have in fact been able to progress into programs of further full-time study.



In the late 1960's and early 1970's, only about 22 percent of the Form V class in a given year (a slightly higher percentage of the Form V science students and a slightly lower percentage of the Form V arts students) did in fact find places in the Sixth Form the following year. The great majority—about 78 percent—of Form V students either entered other forms of training or left school to seek employment. The *percentage* of Form V students in this situation (not going on to Sixth Form) apparently did not vary greatly during the 1960's. But the *absolute number* of Form V students spiraled upward from about 1,700 in 1960 to more than 7,800 in 1970-71 and the *absolute number* of Form V students unable to obtain Sixth Form places—probably about 1,400 in 1960 and less than 3,000 in 1965—increased to more than 6,000 in 1970.

An increasing number of these Form V graduates unable to gain admission to the Sixth Form have been entering the Certificate A Post Secondary teacher-training course. The number rose from fewer than 300 a year up through 1966-67 to more than 1,000 a year in 1968-69 through 1970-71, and in these later years accounted for 15 to 17 percent of the Form V enrollment the previous year. This increase suggests dwindling opportunities elsewhere for Form V leavers; probably they would not enter teacher training if they could find anything better elsewhere. Available data suggest that many of the Form V leavers who do go into teacher training do not do this immediately after leaving school but instead delay their entrance. A University of Cape Coast study found that only 6 percent of a sample of Form V leavers entered teacher training immediately, while enrollment data suggest that a considerably higher percentage (17 percent) do this eventually.

Other Form V graduates have gone on to technical courses—the pre-Ordinary-Level general engineering and building courses or post-Ordinary-Level courses. It is impossible to determine from the enrollments in these courses the precise number who have done so, for these enrollments include students from other than the secondary schools. Probably the number has not exceeded 200 to 300 in any recent year. Training institutions outside the formal system which are operated by other government ministries and private commercial schools probably absorb only a few hundred more Form V graduates each year. Other Form V graduates, in declining numbers, have entered preliminary courses in the universities. Very possibly enrollment of Form V graduates in all of these courses in any year in the late 1960's or early 1970's accounted for less than 8 percent of total Form V enrollment the previous year.

If so, total enrollment in *all* post-Ordinary-Level courses, including the Sixth Form and the Certificate A Post Secondary course, in any year of the late 1960's and early 1970's, accounted for less than half of Form V enrollment the previous year. Enrollments in these courses in any year included Form V graduates who waited a year or more before entering the courses, but the percentage figure probably does give an approximate

indication of the proportion of Form V graduates who do at one time or another go on to full-time courses.

It would seem that more than half of the students completing Form V in any recent year have left school at this point to seek employment or carry on their studies privately in an attempt to improve their academic credentials. Possibly the number of such "secondary school leavers" increased from about 2,000 in 1966 to more than 4,000 in 1970.

Performance on the Ordinary-Level examination seems to be the determining factor in limiting the proportion who go on to further full-time studies. A comparison of enrollments in postsecondary courses with the numbers performing well on the Ordinary-Level examinations the previous year suggests that all students who have been successful enough in the examination to meet the entry requirements have gone on into programs of further full-time study. Academically successful candidates do not become school leavers. There are plenty of places for them in post-Ordinary-Level courses. The academically unsuccessful become the school leavers.

Research indicates that there is unemployment among these secondary school leavers. A University of Cape Coast study of a sample of 1968 and 1969 Form V leavers showed that 6 months or so after they left form V, 48 percent were in some form of full-time further education. Another 27.5 percent were in full-time employment, and the largest percentage of these were in teaching (42 percent) and clerical employment (18 percent). The remaining 24.5 percent—about one fourth of the Form V leavers and almost half of those not in school—were unemployed. There seemed to be no dramatic shortage of the types of jobs secondary school leavers could fill. The crux of the problem seemed to be not the lack of jobs or opportunities but the "unemployability" of the school leaver. While lack of skills or capital were perhaps factors, there appeared to be a general reluctance to accept available opportunities and a tendency to wait for something better. A high percentage of those not in school were discontent and what most of them wanted was more full-time schooling.<sup>3</sup> Another study conducted under the auspices of the Curriculum Development and Research Unit showed that the proportion of secondary school leavers who were unemployed declined as time went on and fell rapidly between the 12th and 16th month after they left school, at which time they were forced to accept positions as pupil teachers.<sup>4</sup>

#### *The Sixth Form and Advanced-Level Examination Performance*

The data in table 15 suggest that in recent years more than 95 percent of the students enrolled in Lower Form VI in public secondary schools

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<sup>3</sup> Sarah French and T. A. Boyd. *An Enquiry Concerning Employment Opportunities for Secondary School Leavers in Ghana*. University of Cape Coast Social Studies Project, Research Report Series, Paper No. 6. Cape Coast: the University, 1971. *passim*.

<sup>4</sup> *Ibid.* p. 46.

have proceeded to Upper Form VI the following year. Wastage in the Sixth Form course has been minimal. According to Ministry of Education figures, between 70 and 90 percent of those enrolled in Upper Form VI have taken their Advanced-Level examinations.

However, certainly not as high a proportion as might be hoped have performed well enough on the final external Advanced-Level examination to meet the requirements for entry to a university degree course. Based mainly on various reports of the West African Examinations Council, the tabulation below shows for certain years during the period from 1957 through 1969 the total number of school candidates who took the Advanced-Level examination (the Higher School Certificate examination up through 1961 and the General Certificate of Education examination in the years from 1962 through 1969), the number and percent of these candidates who passed in two or more subjects at Advanced- (or Principal-) Level, and also the number and percent of candidates who did not pass even one subject at Advanced-Level.

	<i>School candidates taking examination</i>	<i>Candidates passing 2 or more subjects at Advanced-Level</i>		<i>Candidates passing no subject at Advanced-Level</i>	
		Number	Percent	Number	Percent
1957	272	222	81	---	---
1958	251	213	85	---	---
1959	328	252	77	19	6
1962	383	240	63	55	14
1963	665	343	52	126	19
1964	629	383	61	110	17
1965	887	479	54	164	18
1966	972	512	53	197	20
1967 <sup>1</sup>	1,141	647	57	240	21
1968 <sup>1</sup>	1,118	644	58	146	13
1969 <sup>1</sup>	1,350	649	48	287	21

<sup>1</sup> Data are for University of London General Certificate of Education examination only. Data are unavailable that show the number of school candidates passing a given number of subjects in the University of London and the West African Examinations Council General Certificate of Education examinations.

As indicated by the tabulation, the percentage of all students taking the Advanced-Level examination who passed two or more subjects at Advanced-Level (and thus might have met the *minimum* entry requirements for degree courses during the 1960's) had dropped from more than 80 percent in 1957 and 1958 to between 52 and 63 percent during the period from 1962 through 1968. Then, in 1969, the percentage fell below the 50 percent level. Performance had declined with the rapid expansion of Sixth Form facilities. The number of students with two or more Advanced-Level passes never exceeded 650. The tabulation also shows that in certain years one-fifth of all students taking the examination failed to pass even one subject at Advanced-Level.

The production by the Sixth Forms of a sufficient number of adequately qualified science candidates for scientific university degree courses is and has been of crucial importance in the system. In each of the years from 1967-68 through 1971-72, science students outnumbered arts students and except for 1 year outnumbered them in Upper Form VI, as the tabulation on the next page shows.

Comparable enrollment figures for earlier years are not available, but examination data suggest that in the period immediately following independence more students were studying sciences and mathematics than arts subjects and that this balance was reversed in the early 1960's before science students once again, in the late 1960's, outnumbered the others.<sup>5</sup>

Within the science group, students concentrating on the physical sciences have apparently outnumbered those concentrating on the biological sciences. In 1969 the total number of Advanced-Level subject examinations taken and passed in biological and physical science subjects and mathematics were distributed as follows:

	<i>Examinations taken</i>	<i>Examinations passed</i>
Biological sciences	336	215
Physical sciences	1,158	719
Mathematics	723	488

In the absence of examination data showing separately the number of Sixth Form arts students and the number of Sixth Form science students passing two or more subjects at Advanced-Level, it is impossible to determine how many science students meeting the entry requirements for scientific university degree courses the Sixth Forms have produced annually. But the existence at university level of predegree science courses—which were in effect Sixth Form science programs—and the imbalance between enrollments in scientific and other programs at the University of Ghana testified to the fact that throughout most of the 1960's the Sixth Forms were not turning out enough students of this type. The University of Science and Technology's elimination of the predegree courses late in the decade indicated that by that time the secondary schools were turning out from their Sixth Forms at least as many science candidates as this university could admit. But in the early 1970's there were evidently still too few for the scientific courses at Ghana's other two universities.

### Technical Education

The number of technical institutions within the formal educational sys-

<sup>5</sup> In both 1958 and 1959, about three-fifths of all the subject examinations that Sixth Form students took in the Higher School Certificate Examination were examinations in mathematics and science subjects. The proportion dropped to less than half in 1963 before rising to 50 percent in 1965 and 1966 and then to 61 percent in 1967. The number of examinations in science and mathematics subjects that candidates passed at Advanced-Level as a proportion of all the examinations they passed at Advanced-Level was roughly three-fifths in 1958 and 1959 and dropped to one-half in 1963 and 1964 before rising again in 1967 to the 1958 and 1959 levels.

	<i>Science students</i>			<i>Arts students</i>			<i>Commerce students</i>		
	Total	Lower Form VI	Upper Form VI	Total	Lower Form VI	Upper Form VI	Total	Lower Form VI	Upper Form VI
1967-68	2,446	677	595	1,174	638	536	--	--	--
1968-69	2,606	672	668	1,266	654	612	--	--	--
1969-70	2,969	859	653	1,428	763	665	29	29	--
1970-71	3,377	853	844	1,621	841	780	59	32	27
1971-72	3,578	948	845	1,715	889	826	70	40	30

tem administered by the Ministry of Education grew from 8 in 1956 to 15 in 1967-68. Table 18 shows enrollments in these institutions during the period from 1956-57 through 1971-72. As the table shows, these enrollments did not expand significantly until the last years of the C.P.P. government and then declined in the first years after the 1966 coup. Considerable expansion did occur in the very late 1960's and very early 1970's, and in 1971-72 more than 8,000 students were attending courses, over half of them on a full-time basis.

These students were distributed among courses of different types and levels as follows:

<i>Total</i> .....	7,895
General preparatory .....	3,060
Pretechnical .....	2,512
General course in:	
Building .....	130
Engineering .....	418
Craft .....	2,142
Craft (intermediate) in:	
Building .....	232
Engineering .....	1,064
Advanced (final) craft in:	
Building .....	24
Engineering .....	108
Other .....	174
Postsecondary technician .....	525
Technician certificate in:	
Construction .....	14
Electrical engineering .....	108
Mechanical engineering .....	132
Ordinary Technician Diploma in:	
Building .....	43
Engineering .....	170
Mining engineering .....	58
Business or commercial .....	1,566
Post-Middle business .....	471
Post-Ordinary-Level business .....	78
Accountancy .....	59
Other .....	958
Domestic .....	441
Post-Middle .....	172
Catering .....	169
Institutional management .....	100
Technical teacher training .....	161

<sup>1</sup> Includes 610 in the Accra and Tema technical training centers. About 39 percent were in general preparatory courses, 27 percent in craft courses, 20 percent in business courses, and only 7 percent in the various courses preparing technicians in building and engineering.

Table 19 shows the number of persons passing City and Guilds of London Institute craft and technicians examinations in building and engineering in each of the years 1955 through 1969. Of the total of almost 4,200 examinations passed during the period, the overwhelming majority were

Table 18.—Enrollment in public technical institutions: 1956-57—1971-72

[... means source gave no figure. (\*) means institution did not exist and there was no enrollment.]

Institution	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Total	3,057	2,749	2,782	2,522	2,894	2,980	1,575	4,228	4,834	4,956	4,010	3,313	6,039	7,577	7,896	8,345
Full-time	1,241	1,170	1,629	1,406	1,337	1,339	1,575	2,082	2,670	3,196	2,662	2,776	3,843	4,230	4,534	5,246
Day release	479	472	232	185	420	297	.....	465	374	342	415	267	1,362	1,542	703	324
Evening	1,337	1,107	921	931	1,137	1,344	.....	1,681	1,790	1,418	933	270	834	1,805	2,659	2,775
<b>Polytechnics<sup>1</sup></b>																
Total	2,549	2,242	2,215	2,153	2,117	2,196	851	3,096	3,502	3,287	2,461	2,037	2,787	3,957	4,435	4,659
Accra Polytechnic <sup>1</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kumasi Polytechnic <sup>1</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Takoradi Polytechnic <sup>1</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mining School	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tarkwa School of Mines <sup>2</sup>	.....	.....	.....	.....	392	290	88	238	303	376	335	234	253	181	298	331
<b>Technical Institutes<sup>3</sup></b>																
Total	* 508	* 507	* 567	* 369	344	391	487	763	885	1,138	1,061	855	1,447	1,911	2,285	2,740
Asuansi	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	181	207	205	228
Ho	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	242	419	515	590
Kikam	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	90	120	176	148
Koforidua	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	180	180	195	194
Kpandu	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	339	397	464	556
Sunyani	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	181	287	413	541
Tamale	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	234	301	317	483







**Table 19.---Number of persons passing City and Guilds of London Institute craft and technicians examinations in building and engineering: 1955-69**

[... means source gave no figure.¹]

Examination	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Total	3	7	18	67	92	141	281	211	284	465	472	572	482	403	691
Craft (intermediate)	3	7	18	63	86	128	207	119	214	368	326	419	384	266	452
Building	.....	.....	.....	.....	.....	.....	.....	.....	67	117	129	138	208	35	41
Engineering	.....	.....	.....	.....	.....	.....	.....	.....	147	251	197	281	176	231	411
Advanced (final) Craft	.....	.....	.....	4	6	13	35	41	33	52	71	87	83	82	153
Building	.....	.....	.....	.....	.....	.....	.....	.....	10	27	40	50	49	31	46
Engineering	.....	.....	.....	.....	.....	.....	.....	.....	23	25	31	37	34	51	107
Technicians Certificate	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	15	.....	4	25
Construction	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Electrical Engineering	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mechanical Engineering	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	4	.....	4	25
Ordinary Certificate	.....	.....	.....	.....	.....	.....	39	51	37	45	67	.....	.....	.....	.....
Ordinary Technician Diploma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	15	51
Building	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	13
Mechanical and Electrical Engineering	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	39

¹ In many cases the absence of a figure indicates that no person passed the examination because the course was not offered or not offered in its entirety. The first Ordinary Certificate course began in 1959-60 and the last one ended in 1964-65. The Ordinary Technician Diploma courses and the Technicians Certificate courses were not introduced until 1964-65.

² A majority of these passed examinations in mechanical engineering craft practice or motor vehicle mechanics.

³ A majority passed the examination in mechanical engineering craft practice.

⁴ A high percentage passed the examination in motor vehicle mechanics.

⁵ All or almost all passed the examination in motor vehicle mechanics.

⁶ All passed the examination in mechanical engineering craft practice.

Sources: Ghana, Ministry of Education. *Education Report For the Years 1958-1960*. Accra: 1962. p. 45. Ghana, Ministry of Education. *Education Report 1960-82*. Accra: 1983. p. 25. Republic of Ghana, Ministry of Education. *Educational Statistics 1968-69*. Accra: 1971, pp. 90-92.

craft examinations, and only 469 were post-Ordinary-Level examinations for technicians. In addition, during the years 1964 through 1969, 192 persons passed examinations in domestic subjects (catering, domestic cookery, and dressmaking).

## Teacher Training

### *Initial Training*

During the period from 1952 through 1964-65—years of rapid elementary school expansion—the number of initial teacher-training colleges was brought up from 20 (1951) to 46 (1964-65) and additions to existing colleges further expanded the system of initial training. Intake, enrollment, and output increased, but, except for a period of 4 school years, the colleges did not turn out a sufficient number of trained teachers to reverse the unfavorable balance between trained and untrained teachers in the elementary schools. Trained teachers outnumbered the untrained only in school years 1959 through 1961-62. After introduction of fee-free compulsory primary and middle school education in 1961-62, which resulted in an explosion of elementary school enrollments, and reorganization of teacher training the following year (the replacement of the Certificate B 2-year course by the Certificate A 4-year course), the output of trained teachers from the colleges completely failed to keep pace with the increase in school enrollments. As a result, the proportion of trained teachers dropped from more than half in 1961-62 to less than 36 percent in 1965-66.

With the emergency opening of 35 new initial training colleges in 1965-66, the number of initial colleges shot up to 82 and their total intake increased from less than 3,800 in 1964-65 to almost 6,800 in 1965-66.

During the first 2 school years following the 1966 coup, the number of students entering training colleges fell off although total enrollments, which reflected earlier intake, continued to rise (table 20). With the initiation of the 2-year development plan in 1968-69, teacher training received new emphasis. One of the educational aims of the plan was to reduce the proportion of untrained teachers in primary and middle schools from over 60 percent in 1967-68 to less than 50 percent by the end of the plan period in 1970. As one step toward this end, the intake of the training colleges was to be restored in 1968-69 to the previous peak level.<sup>6</sup> The objective was not only to increase the total intake but also, as far as possible, to draw students entering teacher training from the secondary schools rather than from the middle schools. As the 1967 budget document indicated, it had been decided "to step up the enrollment" in postsecondary training colleges "in view of the fact that more secondary school leavers are now available to train as teachers. The Ministry's long-term policy is to recruit

<sup>6</sup> Republic of Ghana. *Two-Year Development Plan* . . . . loc. cit. pp. 83, 85.

Table 20.—Number of initial teacher-training colleges<sup>1</sup> and enrollment, intake, and output<sup>2</sup> of these colleges, by course: 1960-61—1971-72

[... means that source gave no figure. (\*) means none.]

Item	1960-61	1961-62	1962-63	1963-64	1964-55	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
1	2	3	4	5	6	7	8	9	10	11	12	13
	COLLEGES											
Total	30	31	38	44	46	82	79	79	80	73	71	71
Certificate B	18	19	.....	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Certificate A 4-year and/or Post B	8	8	35	41	43	78	75	72	69	62	60	59
Certificate A Post Secondary	4	4	3	3	3	4	4	7	11	11	11	12
	ENROLLMENT											
Total	4,552	.....	5,843	7,604	9,753	14,558	15,768	16,177	18,707	18,368	18,814	18,295
Certificate B	2,931	.....	.....	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Certificate A Post-B	1,284	.....	(*)	2,371	1,695	2,011	1,880	572	(*)	(*)	(*)	(*)
Certificate A 4-year	(*)	(*)	4,158	4,766	7,558	12,057	13,365	14,589	16,992	16,214	16,478	15,470
Certificate A Post Secondary	336	.....	(*)	467	500	490	523	1,016	1,715	2,154	2,336	2,825
	INTAKE											
Total	2,397	3,096	.....	3,747	3,773	6,763	3,770	4,391	6,190	5,591	4,461	4,273
Certificate B	1,544	2,103	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Certificate A Post B	.....	.....	.....	1,007	702	1,311	574	(*)	(*)	(*)	(*)	(*)
Certificate A 4-year	(*)	(*)	.....	2,492	2,808	5,221	2,897	3,679	5,160	4,439	3,267	2,704
Certificate A Post Secondary	.....	.....	.....	248	263	231	299	712	1,030	1,152	1,194	1,569
	OUTPUT											
Total	2,164	1,662	2,001	1,624	1,805	2,008	3,551	2,568	4,726	.....	.....	(*)
Certificate B	1,424	822	1,076	1,146	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Certificate A Post-B	590	681	721	1,276	993	644	1,136	601	998	(*)	(*)	(*)
Certificate A 4-year	(*)	(*)	(*)	(*)	604	1,124	2,183	1,687	4,004	.....	.....	(*)
Certificate A Post Secondary	150	159	204	202	208	240	232	280	624	.....	.....	(*)



only such students into training colleges as a whole in order to improve the standard as well as the quality of teachers.”<sup>7</sup>

As table 20 shows, the intake into the initial training colleges increased substantially to about 6,200 in 1968-69—a figure not quite up to the 1965-66 level—and has been declining since then. But the number of initial colleges giving the 2-year postsecondary course increased from 4 in 1966-67 to 12 in 1971-72, and the intake into this course from about 300 in 1966-67 to more than 1,500 in 1971-72. Because larger numbers have been proceeding through the 2-year course, the output of trained teachers has apparently been increasing despite the decline in intake.

Operating at a time of declining or slowly rising primary school enrollments, the teacher-training program had the desired effect. By 1972, 71 percent of the elementary school teachers were certificated, and the Ministry, estimating that this percentage would rise to 90 percent by 1976 and that the colleges would be overproducing elementary school teachers, planned to reduce the number of training colleges to between 30 and 40 in 1975-76 and to reduce the overall intake into them. It also planned progressively to increase the intake into the Certificate A Post Secondary course while reducing the intake into the 4-year course. The objective was to admit only secondary school leavers to teacher training by about 1975-76.

#### *Specialist Training*

Enrollments in specialist teacher-training courses (excluding the former 4-year housecraft course) were as follows in recent years.

	1967-68	1968-69	1969-70	1970-71	1971-72
Total -----	620	742	831	879	926
Advanced Teacher- Training College courses -----	299	427	440	426	464
Specialist Teacher- Training College courses -----	260	237	248	252	250
Mampong Deaf Training College course -----	16	14	19	19	21
Bagabaga (formerly Tamahe Government) Training College rural science and agricultural science courses -----	45	64	93	116	120
2-year Certificate A Housecraft courses ---	---	---	31	66	71

<sup>7</sup> Ghana. *The Annual Estimates for 1967-68*. I:VIII:16.

Although the number awarded diplomas each year is not available, increasing final year enrollments in these courses suggest that the production of specialist teachers has been rising. Probably the number of science and mathematics teachers produced has not been adequate.

### University Education

University education has held a favored position within the Ghanaian system, consistently receiving, in relation to the number of students it has served, an extremely high proportion of Government funds available for education. With this support the university institutions achieved a remarkable growth in student numbers in the years following the reorganization of higher education in 1961. By 1965-66 their combined enrollments had reached 4,300—a figure more than three times the total enrollment in the two universities in 1961-62. After the coup of 1966 the various governments, attempting to deal with the country's inherited financial difficulties, held down the expenditures on higher education; the physical development of the institutions lagged; and the total enrollment of the three institutions, each with its own pattern of enrollment growth, had by 1971-72 reached some 5,000 students:

	<i>Total</i>	<i>University of Ghana</i>	<i>University of Science and Technology</i>	<i>University of Cape Coast</i>
1961-62	1,390	682	708	---
1962-63	2,065	1,174	736	155
1963-64	2,461	1,397	808	256
1964-65	3,414	1,793	1,099	522
1965-66	4,301	2,001	1,440	860
1966-67	4,478	2,188	1,300	990
1967-68	4,768	2,252	1,394	1,122
1968-69	5,035	2,445	1,549	1,041
1969-70	4,756	2,501	1,456	797
1970-71	4,731	2,525	1,344	862
1971-72	5,063	2,530	1,528	1,005

The total number of degrees, diplomas, and certificates awarded annually by the university institutions increased from 239 in 1961 to more than 1,300 in 1971.

The universities achieved impressive overall growth. A number of factors combined, however, to place limits on the extent to which they were able to contribute, through the output of trained personnel, to the country's development.

The early advancement of higher education in Ghana has been described, probably quite correctly, as "uncoordinated." In the absence of effective governmental or other mechanisms for assuring coordination, each institution for the most part proceeded with its own development, some-

times adding programs or departments which duplicated those of its sister institutions. Apparently intending to eliminate duplication, the Government intervened dramatically to reorganize higher education in the period from 1963 through 1965. However, one part of the overall plan—establishment of a separate university college of agriculture—adversely affected enrollment growth in the existing faculties. In addition, the expansion of higher education proceeded in the absence of adequate manpower statistics and goals that might have provided guidance to the institutions in determining the numbers and types of personnel to be produced. Finally, the development of higher education went forward at a time when the secondary schools were turning out an insufficient number of science candidates meeting established university admission requirements. This shortage affected the distribution of students by level and field of study and subsequently, of course, the composition of the output. The following review of the enrollment and output of each of the three institutions reveals some of the problems that developed.

#### *The University of Ghana*

*Total enrollment and output growth.*—At the University of Ghana, total enrollment leaped from less than 700 in 1961–62 to 2,000 in 1965–66, and then, growing much more slowly after the 1966 coup, leveled off at some 2,500 in the years 1969–70 through 1971–72. (Details appear in table 21.) The university first (in 1962–63) doubled up its students in the rooms of the residence halls (thus increasing enrollment from 700 to 1,200). Later it built low-cost annexes to the halls of residence and, to lower food costs, a cafeteria. When all this was done and residential construction ceased, the university had places for only 2,400 students<sup>8</sup> (not counting nonresidential students, most of whom were in graduate programs). By the late 1960's, limits on space had already forced the university—which not too many years earlier could not find enough students and had empty places—to turn away qualified applicants for first degree courses. In 1968–69, for example, it had 150 more applicants meeting its minimum admission requirements than it could admit. By 1971–72 the number was 248.

As table 22 reveals, the number of degrees, diplomas, and certificates awarded annually by the university to its own students increased from fewer than 200 in 1961 to more than 700 in 1971. By the end of that year it had awarded almost 4,400 first degrees, about 1,200 subdegree level diplomas and certificates, and more than 300 postgraduate degrees and diplomas.

*Enrollment distribution.*—The student body has always consisted mainly of Ghanaian male undergraduates. Of the total 1971–72 enrollment of

<sup>8</sup> Later, in 1972, the university made plans to convert pairs of annexes into halls of residence and thus provide accommodation for an additional 180 students.

2,530 students, women (who numbered 382) made up about 15 percent and non-Ghanaians (170 from 28 countries) about 7 percent. Of the latter 170, 56 were from the United States, 38 from Nigeria, 23 from the United Kingdom, and the remainder from 15 countries in and 10 countries outside Africa.

As indicated in table 21, which shows the distribution of students by level and field of study, Legon remains a predominantly undergraduate institution. About 75 percent of all students enrolled in 1971-72 were in first degree programs and 12 percent in diploma and certificate courses below first degree level. Postgraduate degree, diploma, and other programs enrolled about 11 percent. The proportion of graduate students has increased steadily over the years. The percentage of total places filled by subdegree level diploma and certificate students and the ratio of diploma and certificate students to first degree students moved upward during the first half of the 1960's, but has been declining since 1965-66.

Although the number receiving middle-level training in the subdegree-level courses has been declining in recent years, the distribution of these students by field of study has been improving. In the mid-1960's a very high percentage of these students were taking courses in administration and the performing arts. Since then enrollments in these courses have been reduced, those in agriculture diploma courses (which did not begin until 1965-66) have been stepped up,<sup>9</sup> and new much-needed subdegree-level courses have been started in home science extension (1970-71), statistics (1968-69), and accounting.

At the first degree level, an imbalance between enrollments in science, agriculture, and medicine on the one hand and all other fields (arts, social studies, law, and administration) on the other has been a major and persistent problem. The total number of University of Ghana first degree students and the number and percent of the total enrolled in the scientific fields and in all other fields in the years 1957-58 through 1971-72 are given in the tabulation on page 249.

As the tabulation shows, the percentage of all first degree students enrolled in the scientific fields declined from about 31 percent in the late 1950's to about 18 percent in 1963-64 and 1964-65 before rising again above the 30 percent level in the late 1960's. As of 1971-72 the problem persisted. Of the 1,887 first degree and predegree students, only 676 (36 percent) were in the scientific programs—338 (17.9 percent) in medicine, 216 (11.4 percent) in science and home science, and 122 (6.5 percent) in agriculture—while about 49 percent were in arts and social studies, 9 percent in administration, and 6 percent in law. (Although still high, the proportion in arts and social studies had declined considerably from the

<sup>9</sup> In most years, the number taking these courses has been about one-half or less than one-half the number of students taking degree courses in agriculture.



Table 21.—Number of students at the University of Ghana,<sup>1</sup> by level and field of study: 1957-58—1971-72

[... means that source gave no figure.]

Level and field of study	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Grand total	424	519	609	671	682	1,174	1,397	1,793	2,001	2,188	2,252	2,445	2,501	2,525	2,530
<b>First Degree<sup>2</sup></b>															
Total	363	459	545	599	603	890	1,062	1,356	1,510	1,721	1,819	1,919	2,009	1,932	1,887
Administration	.....	.....	.....	.....	.....	38	92	133	145	154	153	173	178	173	171
Agriculture	35	38	43	40	33	42	27	25	28	40	57	77	*121	115	122
Arts and Social Studies	251	316	351	379	409	587	704	884	947	1,033	1,048	1,002	997	973	919
Home Science	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	10	21	23	15	11
Law <sup>3</sup>	.....	.....	27	55	68	94	75	96	107	107	109	112	119	118	121
Medicine	.....	.....	.....	.....	.....	10	51	82	102	163	206	266	294	308	338
Science	77	105	124	125	93	78	93	136	181	216	236	268	277	230	205
<b>Postgraduate<sup>3a</sup></b>															
Total	14	12	14	22	18	31	131	130	107	93	96	156	145	201	272
Agriculture	.....	.....	.....	.....	.....	1	1	.....	.....	2	7	.....	4	13	18
Arts and Social Studies	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
African Studies	.....	.....	.....	.....	.....	11	34	44	31	18	11	.....	31	64	26
Education <sup>17</sup>	14	12	14	15	12	14	17	1	.....	.....	.....	.....	.....	.....	.....
Library Studies <sup>18</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Social Administration <sup>19</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other	.....	.....	.....	.....	.....	2	6	11	6	8	24	.....	8	4	3
Law <sup>21</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Science	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Statistics	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other <sup>22</sup>	.....	.....	.....	7	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Diplomas and Certificates															
Total	47	48	48	42	52	245	175	275	379	367	327	336	292	331	313
Administration <sup>27</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Agriculture <sup>28</sup>	.....	.....	.....	.....	.....	183	73	120	145	136	118	91	66	64	55
Arts and Social Studies	.....	.....	.....	.....	.....	.....	.....	.....	14	9	30	52	59	53	56
Education <sup>29</sup>	24	27	22	16	21	22	16	.....	.....	.....	.....	.....	.....	.....	.....
Nursing Education <sup>30</sup>	.....	.....	.....	.....	.....	.....	20	40	44	23	15	11	17	35	33
Social Administration <sup>31</sup>	23	21	22	26	30	31	33	37	37	42	38	35	41	40	49
Study of Religions <sup>32</sup>	.....	.....	4	.....	1	5	8	8	9	11	12	15	20	19	21
Home Science Extension	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
Performing Arts <sup>33</sup>	.....	.....	.....	.....	.....	4	25	70	130	146	114	107	81	80	69
Statistics <sup>34</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25	8	29	18
<b>Other<sup>35</sup></b>	.....	.....	2	8	9	8	29	32	5	7	10	34	55	61	58
<b>Total</b>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> The University College of Ghana until 1961.  
<sup>2</sup> Includes the premedical course and other preliminary courses.  
<sup>3</sup> Includes 49 in preliminary courses studying mainly arts and social studies subjects.  
<sup>4</sup> Includes 54 in preliminary courses studying theology and other subjects.  
<sup>5</sup> Includes 48 in preliminary courses studying theology and law.  
<sup>6</sup> Includes 3 in unspecified preliminary courses.  
<sup>7</sup> Includes, in addition to 41 premedical students, 6 students in unspecified preliminary courses.  
<sup>8</sup> Includes 49 in a preliminary course and 72 in the degree course.  
<sup>9</sup> Includes only the first degree course in law: the B.A. (Honours) Law degree course, 1959-60 through 1964-65, and the LL.B. degree course, 1965-66 through 1969-70. Excludes the former LL.B. course, which followed the B.A. (Honours) Law course, and the current practical course in law, which follows the current LL.B. course.  
<sup>10</sup> All in the premedical course.  
<sup>11</sup> Includes students in the premedical course. Their numbers were as follows: 1964-65—41; 1965-66—31; 1966-67—62; 1967-68—52; 1969-70—59; 1970-71—45; 1971-72—60.  
<sup>12</sup> Probably includes students in the preliminary science course. The following enrollments in that course have been reported: 1965-66—19; 1966-67—25; 1967-68—20.  
<sup>13</sup> Including postgraduate degree, diploma and certificate courses; and research.  
<sup>14</sup> Total given by source; column adds to 203. Includes visiting research students.  
<sup>15</sup> All studying for the M. Sc. in Agriculture.  
<sup>16</sup> 18 studying for the M.A. and 8 for the Ph. D.  
<sup>17</sup> The discontinued Postgraduate Certificate (or Diploma) in Education course, 1957-58—1963-64, and the M. Sc. in Education course, 1964-65.  
<sup>18</sup> Postgraduate Diploma in Library Studies.  
<sup>19</sup> Postgraduate Diploma in Social Administration.  
<sup>20</sup> Distributed as follows: Archeology—2; Economics—23 (including 1 Ph. D. candidate); English—3; Geography—14 (4); History—5 (2); Linguistics—6 (2); Sociology—7 (1); Study of Religions—6.  
<sup>21</sup> The courses in law for those who had earned the first degree in law. These were (1) in 1963-64 and 1964-65, the former 2-year LL.B. course for those who had completed the B.A. (Honours) Law degree course; (2) from 1965-66 through 1970-71, the 1-year practical course in law for those who had completed the new 3-year LL.B. degree course; and (3) in 1971-72 both the practical course in law and the Master of Laws course.  
<sup>22</sup> Includes 9 in Master of Laws course and 81 in the practical course in law.  
<sup>23</sup> Distributed as follows: Botany—5 (including 3 Ph. D. candidates); biochemistry—1; chemistry—1; nutrition—1; zoology—14 (5).  
<sup>24</sup> Distributed as follows: Postgraduate diploma—8; M. Sc.—6; Ph. D.—1.

- <sup>26</sup> Other fields of study or a combination of fields of study.
- <sup>27</sup> Visiting research students. Source shows more than one field of study for most of them.
- <sup>28</sup> The nondegree courses of the School of Administration, including those in public administration, hospital administration, and local government.
- <sup>29</sup> Courses leading to the Special Diplomas in Agriculture and the National Diploma in Agriculture.
- <sup>30</sup> The discontinued course leading to the Associate Certificate in Education.
- <sup>31</sup> Course leading to the Diploma in Nursing Education (formerly Diploma in Post-Basic Nursing), and, in 1970-71 and 1971-72, the Ward Sisters course.
- <sup>32</sup> Course leading to the Certificate in Social Administration.
- <sup>33</sup> Course leading to the Licentiate in the Study of Religions and the former course leading to the Licentiate in Theology.
- <sup>34</sup> Diploma and certificate courses in music, drama and theatre studies, and dance (and, where noted, other unspecified programs) of the Institute of African Studies.
- <sup>35</sup> Includes 53 in music, drama, and dance courses and 17 in unspecified fields.
- <sup>36</sup> Includes 140 in music, drama, and dance courses and 6 in unspecified fields.

- <sup>37</sup> Nondegree courses in statistics.
- <sup>38</sup> Special courses and special admission and occasional students whose fields of study are not specified.
- <sup>39</sup> Includes 24 students in a special course in law.
- <sup>40</sup> Includes 20 students in special course for organizers for the teaching of Ghanaian languages.

Sources: University of Ghana. *Basic Statistics 1961-1966*. Mar. 1, 1968. p. 3. University of Ghana. *Basic Statistics 1961-1972*. Mar. 1, 1972. p. 3. University of Ghana. *Statistics 1971/72*. pp. 112-122. Processed. Republic of Ghana, Central Bureau of Statistics. *1965-66 Statistical Year Book*. Accra: Ministry of Information on behalf of the Central Bureau of Statistics, 1969. p. 207. Republic of Ghana, Ministry of Education. *Education Report 1963-67*. Accra-Tema: Ghana Publishing Corporation, 19687 p. 83. Also University of Ghana Annual Reports by the Principal for the years 1957-58 through 1959-60 and Annual Reports by the Vice-Chancellor for the years 1961-62 through 1970-71.

period from 1961-62 through 1965-66 when it moved from 68 to 63 percent.)

	<i>Total</i>	<i>Agriculture, medicine, and science</i>		<i>Other</i>	
		<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
1957-58	363	112	30.9	251	69.2
1958-59	459	143	31.2	316	68.9
1959-60	545	167	30.6	378	69.4
1960-61	599	165	27.5	434	72.5
1961-62	603	126	20.9	477	79.1
1962-63	890	171	19.2	719	80.8
1963-64	1,062	191	18.0	871	82.0
1964-65	1,356	243	17.9	1,113	82.1
1965-66	1,510	311	20.6	1,199	79.4
1966-67	1,721	427	24.8	1,294	75.2
1967-68	1,819	509	28.0	1,310	72.0
1968-69	1,919	632	32.9	1,287	67.1
1969-70	2,009	715	35.6	1,294	64.4
1970-71	1,932	668	34.6	1,264	65.4
1971-72	1,887	676	35.8	1,211	64.2

The medical program has evidently had no trouble attracting well-qualified students. Enrollments in the program have been limited by the available facilities. Still located in temporary quarters at Korle Bu, the medical school has been able to admit at most 60 students each year, and has in fact been admitting a somewhat smaller number.

Enrollments in the science and agriculture degree programs have not, at least in recent years, been limited in this way. There have apparently been two major reasons for the persistently small number of students enrolling in these programs. The secondary schools have not turned out enough secondary school science graduates able to meet the high admission requirements established for scientific university degree courses. Many of those who have been able to meet these requirements have evidently chosen to take the more highly rewarded medical course and the professional courses in engineering, architecture, and other fields offered at the University of Science and Technology (or have chosen to go abroad) rather than to enter a pure science or agricultural program at Legon.

Within the Faculty of Science, the biological sciences have enrolled fewer and apparently less talented students than the physical sciences. Speaking in 1968, the University's vice chancellor said the best students were studying physics and/or chemistry while the biological sciences had few students who, he had been told (judging by their performance) were of poorer quality than students studying the physical sciences. Why the disparity in numbers and quality?

It may be partly because the best biology students in the Sixth Forms aim at the medical profession and the University Departments only get those who fail to enter the Medical School. But it may also stem from a tradition in the Schools that the brightest young scientists should be encouraged to study Math-

Table 22.—Number of degrees, diplomas, and certificates awarded to students of the University of Ghana,<sup>1</sup> by level, field of study, and award: 1951-71

[... indicates that source gave no figure.]

Field of study <sup>2</sup> and award	1951-56	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total	6,106	433	79	102	126	178	192	186	249	269	471	531	574	599	674	733
Grand total	4,384	265	38	59	77	138	148	151	201	178	341	380	384	433	520	557
FIRST DEGREES																
<b>Administratives</b>	310	.....	.....	.....	.....	.....	.....	.....	.....	.....	27	40	42	39	54	60
B. Sc. (Administration)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Arts, Social Studies</b>	895	61	9	7	9	20	13	23	13	28	98	75	54	104	155	115
B.A. General	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B.A. General (Library Studies)	1,418	69	18	22	19	36	51	34	80	91	123	135	130	141	143	159
B.A. (Honours) <sup>3</sup>	27	5	.....	1	1	1	7	12	.....	.....	.....	.....	.....	.....	.....	.....
B.D.	487	33	3	10	21	33	22	22	20	26	39	45	73	45	31	31
B. Sc. (Economics)	20	.....	.....	1	1	1	4	10	3	.....	.....	.....	.....	.....	.....	.....
B. Sc. (Sociology)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Agriculture</b>	104	3	1	9	7	13	11	12	13	6	8	6	5	10	.....	.....
B. Sc. (Agriculture) General	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. Sc. (Agriculture) Special	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
B. Sc. (Honours) Agriculture	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	10
B. Sc. (Home Science) General	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	4
<b>Law</b>	84	.....	.....	.....	.....	.....	.....	43	18	23	.....	.....	.....	.....	.....	.....
B.A. (Honours) Law	238	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	27	39	42	53
LL.B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Medicine</b>	95	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39	25
M.B., Ch.B.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Science</b>	446	66	2	8	15	25	24	23	18	7	19	25	25	34	43	45
B. Sc. General	128	28	5	1	4	9	16	15	11	2	4	15	18	.....	.....	.....
B. Sc. (Special)	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. Sc. (Honours)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	8	26

POSTGRADUATE DEGREES AND DIPLOMAS

	470	19	14	12	12	11	13	9	13	37	52	49	65	45	22	75	22
Total .....	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
<b>Agriculture</b>																	
M. Sc. (Agriculture) .....																	
<b>Arts, Social Studies</b>																	
M.A. ....	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
M. Sc. (Economics) .....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ph. D. ....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Postgraduate Certificate (or Diploma) in Education <sup>1</sup> .....	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
Postgraduate Diploma in: Library Studies .....	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Social Administration .....	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Other subjects .....	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
<b>Law</b>																	
LL.B. <sup>2</sup> .....	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
Professional Certificate in Law .....	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
<b>Science</b>																	
M. Sc. ....	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Ph. D. ....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Postgraduate Diploma in Food Science .....	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>Statistics</b>																	
M. Sc. (Statistics) .....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Postgraduate Diploma in Applied Statistics .....	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Ph. D. ....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 22.—Number of degrees, diplomas, and certificates awarded to students of the University of Ghana,<sup>1</sup> by level, field of study, and award: 1951-71—(Continued)

	Total	149	27	31	37	29	31	26	35	54	78	102	125	121	132	121	154	
OTHER DIPLOMAS AND CERTIFICATES																		
Diploma in:																		
Hospital Administration	20										3	4	3	1	6	1	2	
Public Administration	99									5	8	7	15	13	15	14	22	
Agriculture																		
National Diploma in Agriculture	54														17	17	20	
Special Diploma in Agriculture	47											12	8	13	3	6	5	
Diploma in Home Science	58										10	4	10	10	9	15		
Diploma in Home Science Extension	5																5	
Arts, Social Studies																		
Associate Certificate in Education	299	149	17	23	26	19	15	12	21	17								
Diploma in Nursing Education	72										12	19	11	9	6	5	10	
Certificate in Social Administration	210		10	9	11	10	11	14	13	13	16	16	22	16	9	24	17	
Licentiate in Theology (or Study of Religions)	39								1	2	2	2	1	3	5	7	11	
Licentiate in Theology (External)	28													3	6	4	15	
Performing Arts																		
Various certificates or diplomas in Dance, Drama and Theatre Studies, Music	236										17	27	38	35	37	40	18	24
Statistics																		
Certificate in Statistics	76													20	16	16	10	14
Higher Certificate in Statistics	9																	9

<sup>1</sup> The University College of the Gold Coast from 1948 to 1957, the University College of Ghana from 1957 to 1961. A small number of diplomas awarded by the university to students enrolled outside the university are included.

<sup>2</sup> The broad fields of study used in this table correspond to the faculties, schools, or institutes of the university. Thus, agriculture includes home science, schools, taught in the Faculty of Agriculture; administration includes hospital administration, taught in the School of Administration; social studies includes library studies, nursing education, and social administration, which have been taught, and education, which was formerly taught, in the Faculty of Social Studies.

<sup>3</sup> Including Combined B.A. (Honours).

<sup>4</sup> A majority in African studies.

<sup>5</sup> In history.

<sup>6</sup> In linguistics.

<sup>7</sup> Postgraduate Certificate in Education, 1957-62; Postgraduate Diploma in Education, 1963 and 1964.

<sup>8</sup> Includes 3 in linguistics and 1 each in French linguistics and African archeology.

<sup>9</sup> The former Bachelor of Laws degree, awarded to holders of the B.A. (Honours) Law degree who had subsequently completed a further course of study.

<sup>10</sup> Source gave no figure but presumably some awards were made.

<sup>11</sup> In zoology.

<sup>12</sup> Certificate in Dance, Diploma in Dance, Certificate in Drama and Theatre Studies,

Diploma in Drama and Theatre Studies, Certificate in Music, Diploma in African Music, General Diploma in Music.

Sources: The University College of Ghana. *Annual Report by the Principal* . . . 1956-1957. p. 62. The University College of Ghana. *Annual Report by the Principal* . . . 1957-1958. p. 46. The University College of Ghana. *Annual Report by the Principal* . . . 1958-59. p. 62. The University College of Ghana. *Annual Report by the Principal* . . . 1959-60. p. 71. Republic of Ghana, Ministry of Education. *Education Report 1963-67*. Accra: 1968(7). pp. 85, 86. University of Ghana. *Annual Report by the Vice-Chancellor for 1961-62*. pp. 70, 71. University of Ghana. *Annual Report by the Vice-Chancellor for 1962-63*. pp. 110, 111. University of Ghana. *Annual Report by the Vice-Chancellor for 1963-64*. pp. 104, 105. University of Ghana. *Annual Report by the Vice-Chancellor for 1964-65*. pp. 110, 111. University of Ghana. *Annual Report by the Vice-Chancellor for 1965-66*. pp. 138, 139. University of Ghana. *Annual Report by the Vice-Chancellor for 1966-67*. pp. 169, 170. University of Ghana. *Calendar 1970-72*. pp. 212-36. (Pass List for 1969 Examinations). University of Ghana. *Calendar 1970-72*. pp. 244-68. (Pass List for 1970 Examinations). University of Ghana. *Annual Report by the Vice-Chancellor for 1969-70*. p. 226. University of Ghana. *Basic Statistics 1961-1972*. Accra: Tema: Ghana Publishing Corporation, 1972. p. 4. University of Ghana. *Congregation* . . . 11th March, 1972. Accra: The University, 1972. n.p.



ematics, Physics and Chemistry, while Biology is regarded as a soft option for the dullards.

Pointing out that "in an agricultural country like Ghana, this lack of able biologists is hampering research," he appealed to those concerned with teaching science students in the secondary schools to "review the balance between the sciences in the Sixth Forms and to take some measures to encourage more students, especially the brighter ones, to study the biological sciences."<sup>10</sup>

In the heavily enrolled nonscience sector there has been an imbalance between the social sciences, particularly sociology, political science, and history, on the one hand, and the arts subjects, especially the school subjects, on the other. As the vice chancellor pointed out in March 1968, the former have tended to be overenrolled "with the result that the University runs the risk of producing too many graduates in the Social Sciences and too few of those who can teach the Arts subjects in the Secondary Schools."<sup>11</sup>

*Graduates.*—The distribution of students between the two broad areas, science and nonscience, has of course been clearly reflected in the output of the university. (See table 22.) Of the 4,384 first degrees awarded at the University of Ghana during the 15-year period from 1957 through 1971, 895 (or 20.4 percent) were in agriculture, science, and medicine and the remaining 3,489 (or 79.6 percent) in other fields. The proportion of graduates in these scientific fields increased to about one-third in each of the 4 years from 1959 through 1962: dropped to about 8 percent in 1964; and had risen to only 26 percent in 1971, as the following tabulation shows.

	<i>Total</i>	<i>Degrees in agriculture, science, medicine</i>		<i>Other degrees</i>	
		<i>Number</i>	<i>Percent of total</i>	<i>Number</i>	<i>Percent of total</i>
1957	38	8	21.1	30	78.9
1958	59	18	30.5	41	69.5
1959	77	26	33.8	51	66.2
1960	138	47	34.1	91	65.9
1961	148	51	34.5	97	65.5
1962	151	50	33.1	101	66.9
1963	201	42	20.9	159	79.1
1964	178	15	8.4	163	91.6
1965	341	31	9.1	310	90.9
1966	380	48	12.6	332	87.4
1967	384	48	12.5	336	87.5
1968	433	65	15.0	368	85.0
1969	520	95	18.3	425	81.7
1970	514	110	21.4	404	78.6
1971	557	144	25.9	413	74.1

<sup>10</sup> "Vice-Chancellor's Address to Congregation 16th March, 1968," *University of Ghana Reporter*, 7:24:388-89, Aug. 9, 1968.

<sup>11</sup> *Ibid.* p. 388.

As table 22 shows, by the end of 1971 the university had awarded more than 3,000 first degrees in arts, social studies, and law. In the same period it had produced 446 holders of the B. Sc. General degree, some of whom had earned an honours degree in addition, and 139 holders of a first degree in agriculture. It had also awarded 95 medical degrees. The medical school, which had not opened until 1964, produced its first 39 doctors in 1969. The following year 33 medical students reached their final year, but only 25 of them received their degrees. Another 31 received theirs in 1971. The school has aimed at producing 50 doctors each year and was expected to reach this target by 1972.<sup>12</sup> (If all the students already enrolled in the medical program in 1971-72 were to complete their course successfully, the number earning the M.B., Ch.B. would be 50 each in 1972 and 1973, 56 in 1974, 59 in 1975, and 51 in 1976. Transfer students are not included in these estimates.)

The university has been fully cognizant of the problems and, apparently in the first academic year following the 1966 coup, adopted a new policy. In his address to the Congregation of the University in March 1967, the vice chancellor reported that the Academic Board of the University had approved the recommendation that science students should be given priority in the matter of admission, that the ultimate ratio between the pure sciences and arts/social studies students should be 40 to 60, and that professional courses such as law, medicine, and agriculture and diploma and certificate courses should be given quotas.<sup>13</sup> Some years later he described the policy as one "of aiming at a broad ratio of 60 to 40 between non-Science and Science students (including medical students and agricultural students)."<sup>14</sup> This ratio applies to degree courses only; diploma and certificate courses are offered at the request of the Government.

In line with this policy, the University has continued to increase the number of places offered to beginning degree students in science, agriculture, and home science, but the percentage of those offered admission who accept it continues to fall. In 1970-71, 80 first-year places were available in science, agriculture, and home science, but only 65 percent were taken.<sup>15</sup> In 1971-72, 172 students were offered admission,<sup>16</sup> but only 79 were enrolled; 41 (including 5 repeaters and 2 non-Ghanaians) began the science degree course, 34 the agricultural degree course, and 4 the home science degree course.<sup>17</sup> It would appear that the imbalance between science and

<sup>12</sup> Republic of Ghana. *Budget Statement for 1970-71*. Accra: Ministry of Finance and Economic Planning, 1970, p. 25.

<sup>13</sup> University of Ghana. *Annual Report by the Vice-Chancellor for 1966-67*, p. 127.

<sup>14</sup> A. A. Kwapong. "Mobilisation of Human and Material Resources," *University of Ghana Reporter*, 10:20:490, May 7, 1971. Paper by the vice chancellor for the workshop on Research Priorities.

<sup>15</sup> "Vice-Chancellor's Address to Congregation 11th March, 1972," *University of Ghana Reporter*, 11:14:211, Apr. 28, 1972.

<sup>16</sup> *Ibid.*

<sup>17</sup> University of Ghana. *Statistics 1971/72*. Processed, pp. 64, 71, 73.

arts students and graduates will continue to be one of the university's major problems.

*The University of Science and Technology*

*Total enrollment and output growth.*—Table 23 shows the number of students at the University of Science and Technology, by level and field of study, during the period from 1961-62 through 1971-72; and table 24 shows the number of degrees, diplomas, and certificates awarded from 1957 through 1972, also by level and field of study.

The university's total enrollment, which stood at some 700 in 1961-62, had more than doubled by the time of the 1966 coup (academic year 1965-66). Declining to 1,300 the following year and fluctuating in the subsequent years between some 1,300 and 1,500, it stood at 1,765 in academic year 1972-73. Fewer than 100 a year before 1963, the number of degrees, diplomas, and certificates awarded by the university had risen to almost 400 in 1971.

*Enrollment distribution.*—Most of the university's students have, of course, been male Ghanaians. As of 1972-73, the 119 women students constituted 6.7 percent and the 42 non-Ghanaians 2.4 percent of the student body. Of the latter, 16 came from Nigeria and the others from 10 other countries, including three non-African countries.

About 68 percent of the students were in first degree programs and another 20 percent in subdegree-level diploma and certificate courses. Only about 6 percent were in graduate programs and only 5 percent in pre-degree courses.

At present, predegree work does not place a burden on university facilities. Throughout most of the 1960's, however, a considerable percentage of the student body were in preliminary or predegree courses that the university had offered because it was unable to recruit from the secondary schools enough students adequately prepared for its scientific and technological courses. As the following tabulation shows, the number of pre-degree students increased to 664 (or 46 percent) of the student body in 1965-66 before falling to 255 (or 16 percent) in 1968-69 and fewer than 100 (or less than 6 percent) in the subsequent years.

	<i>Number in predegree courses</i>	<i>Percent of student body</i>
1961-62	306	43.2
1962-63	200	27.2
1963-64	249	30.8
1964-65	435	39.6
1965-66	664	46.1
1966-67	421	32.4
1967-68	300	21.5
1968-69	255	16.5
1969-70	84	5.8
1970-71	51	3.8
1971-72	64	4.2
1972-73	85	4.8

With so many places occupied by predegree students, the output of the institution was inevitably smaller than it would have been had all of these places been filled by undergraduate and graduate students.

This problem has now been eliminated. In March 1969 the vice chancellor announced that the university had far more qualified applicants than there were places available and it no longer needed to prepare students to enable them to satisfy its entrance requirements. All predegree courses, he said, would soon be discontinued in order to make room for students undertaking undergraduate courses.<sup>15</sup> The university gave its last preliminary science course in 1967-68 and 1968-69 and its last pre-architecture course in 1968-69 and 1969-70. Only the pre-art course remained.

Up through 1970-71 engineering was the largest faculty in the sense that it enrolled the largest proportion of all the university's undergraduate and graduate students (i.e., of all students other than those in preliminary courses). In fact, until 1966-67 engineering students constituted half or almost half of this total. Architecture continued to rank second up through 1969-70. After the coup of 1966, enrollments in both science and agriculture grew very rapidly. The Faculty of Science, which had no undergraduate or graduate enrollments in 1961-62, the smallest number up through 1964-65, and the fourth largest from 1965-66 through 1969-70, became the largest faculty in 1971-72. Enrollments in agriculture, which had suffered as a result of the pre-coup plans for a separate university college of agriculture, also increased rapidly after the coup, and from 1967-68 closely approximated those in architecture. As of 1971-72 all degree and diploma students were distributed by faculty as follows:

	<i>Number</i>	<i>Percent</i>
<i>Total</i> .....	<i>1,464</i>	<i>100.0</i>
Science .....	357	24.4
Engineering .....	326	22.3
Architecture .....	276	18.9
Agriculture .....	190	13.0
Social Studies .....	126	8.6
Art .....	103	7.0
Pharmacy .....	86	5.9

The vice chancellor remarked a few years ago that, as he saw it, there was no danger for some time to come that the university would overproduce the type of personnel it trained.<sup>16</sup> And, in the absence of more plentiful manpower data, the distribution of the university's students by field of study seems unchallengeable.

<sup>15</sup> "Congregation Address by the Vice-Chancellor Dr. E. Evans-Anfom--1st March, 1969." *Annual Report 1967-68*. University of Science and Technology, Kumasi. p. 11.

<sup>16</sup> "Vice-Chancellor's Congregation Address February 28, 1970." *Annual Report 1968-69*. University of Science and Technology, Kumasi. p. 13.

Table 23.—Number of students at the University of Science and Technology, Kumasi, by level, faculty, and course: 1961-62-1971-72

{... means there were no students.}

Faculty and course	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
1	2	3	4	5	6	7	8	9	10	11	12
SUMMARY											
Grand total	708	736	808	1,099	1,440	1,300	1,394	1,549	1,458	1,344	1,528
Agriculture <sup>2</sup>	71	59	47	44	51	141	209	236	236	256	190
Architecture <sup>3</sup>	72	111	104	134	153	200	217	240	245	256	276
Art <sup>4</sup>	33	25	50	42	53	64	85	104	131	119	103
Engineering <sup>2</sup>	204	276	276	321	357	302	342	429	460	296	326
Pharmacy <sup>2</sup>	22	49	59	86	94	71	84	90	91	85	86
Science <sup>2</sup>	.....	16	23	37	68	101	157	195	211	281	357
Social Sciences <sup>2</sup>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other (Preliminary)	306	200	249	435	664	421	300	255	84	51	64
FIRST DEGREE COURSES											
Total	163	291	358	449	565	679	852	954	1,018	1,042	1,129
Agriculture											
B. Sc. (Agriculture)	.....	19	23	33	30	67	107	115	120	149	150
B. Sc. (Land Economy) <sup>4</sup>	.....	.....	.....	.....	.....	24	42	62	72	69	.....
Architecture											
B. Sc. (Building Technology)	.....	.....	3	11	23	29	40	53	67	61	63
B. Sc. (Design)	44	45	21	44	55	79	83	94	86	85	75
B. Sc. (Planning)	.....	.....	.....	.....	.....	.....	.....	.....	11	24	41
Art											
B.A. (Art)	.....	.....	40	42	50	58	79	94	121	109	93
Engineering											
B. Sc. (Engineering)	110	167	189	199	259	253	265	282	282	217	207

	9	44	59	83	85	69	80	66	53	47	53
<b>Pharmacy</b>											
B. Pharm. ....	9	44	59	83	85	69	80	66	53	47	53
<b>Science</b>											
B. Sc. ....	16	23	37	63	100	156	188	206	281	347	347
<b>Social Sciences</b>											
B.A./B. Sc. (Social Sciences) .....											29
B. Sc. Land Economy * .....											71

POSTGRADUATE DEGREE AND DIPLOMA COURSES

	23	46	55	48	56	81	53	55	78
<b>Total</b> .....	23	46	55	48	56	81	53	55	78
<b>Agriculture</b>									
M. Sc. (Agriculture) .....				1		2	2		8
<b>Architecture</b>									
M. Sc. (Architecture) .....	14	22	11	13	20	14	1		
M. Sc. (Regional Planning) .....		4	14	12	17	29	17		
M. Sc. (Urban Planning) .....	9	8	14	9	5	4	2	13	9
Postgraduate diploma in:									
Architecture .....							11	22	37
Building Technology .....				2		1			
<b>Art</b>									
Postgraduate Diploma in									
Art Education .....				6	6	10	10	10	10
<b>Engineering</b>									
M. Sc. (Engineering) .....					2	2			
M. Sc. (Sanitary Engineering) .....		3	6	2					
Postgraduate Diploma in									
Land Surveying .....		6			1	6	3	5	

Table 23.—Number of students at the University of Science and Technology, Kumasi,<sup>1</sup> by level, faculty, and course: 1961-62—1971-72—(Continued)

	239	245	178	159	152	152	186	259	303	196	257
<b>OTHER DIPLOMA AND CERTIFICATE COURSES</b>											
<b>Pharmacy</b>											
M. Pharm. ....				3		2	4	6	2	5	4
<b>Science</b>											
M. Sc. ....							1	7	5		10
Research .....				1	1						
<b>Total</b> .....	239	245	178	159	152	152	186	259	303	196	257
<b>Agriculture</b>											
Diploma in Tropical Horticulture .....		2	2	11	21	18	22	33	26	18	32
Diploma in Tropical Agriculture .....	34	27	22								
Certificate in Estate Management <sup>4</sup> .....					31		38	24	16	20	
Promotion course .....	37	11									
<b>Architecture</b>											
Diploma in Building Technology ....	14	20	13	6							
Diploma in Physical Planning .....				36	56		52	45	50	51	
Diploma in Community Planning ....		35	37	32							
Diploma in Town Planning .....	14	11	7	7							
<b>Art</b>											
Diploma in Fine Art .....	26	19									
Art Teachers' Diploma .....	7	6	10	3							
<b>Engineering</b>											
Diploma in Engineering .....	70	81	82	102	88	37	67	104	120	44	106
Diploma in Land Surveying .....								7	7	4	8
Certificate in Land Surveying .....								28	48	26	5
R.I.C.S. <sup>5</sup> .....	17	19									
Survey School .....	7	9	5	11	4	10	7				

<b>Pharmacy</b>										
Pharmacy Diploma .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
Pharmacy/Poison Board Certificate ..	13	5	.....	.....	.....	.....	.....	.....	.....	33
<b>Social Sciences</b>										
Certificate in Estate Management <sup>4</sup> ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	26

**PREDEGREE COURSES**

Total .....	<sup>9</sup> 306	200	249	435	664	421	300	255	84	51	64
Architecture .....	23	3	21	55	118	88	64	68	33	.....	.....
Art <sup>7</sup> .....	<sup>8</sup> 1	5	<sup>4</sup> 1	<sup>9</sup> 38	<sup>7</sup> 71	72	<sup>8</sup> 83	<sup>8</sup> 87	51	<sup>6</sup> 51	54
Science <sup>10</sup> .....	227	192	227	342	475	261	153	100	.....	.....	.....

<sup>1</sup> Formerly (1961-66) the Kwame Nkrumah University of Science and Technology.  
<sup>2</sup> Excluding preliminary or predegree courses.  
<sup>3</sup> Includes 4 students in a special course in biochemistry not shown in column.  
<sup>4</sup> This course was offered in the Faculty of Agriculture through 1970-71, in the Faculty of Social Sciences from 1971-72.  
<sup>5</sup> Course leading to Examination of the Royal Institute of Chartered Surveyors.  
<sup>6</sup> Includes 55 in a predegree liberal arts course not shown in column.  
<sup>7</sup> Including predegree art course and special art preparatory course.  
<sup>8</sup> Includes 1 student in special art preparatory course.  
<sup>9</sup> Includes 4 students in special art preparatory course.  
<sup>10</sup> Includes prescience, pre-engineering, and prepharmacy courses.  
 Sources: University of Science and Technology, Kumasi. Annual Report 1968-69. p. 122. Calendar 69-71. p. 59. Calendar 71-72. pp. 218-20. List of Students by Departments Michaelmas Term, 1971. Jan. 20, 1972. Processed. pp. i-iii.





It is not clear, however, that the balance between undergraduate students in degree courses and undergraduate students in diploma and certificate courses below first degree level has always been satisfactory. The number of degree students increased steadily from 1961-62 through 1971-72 while the number of diploma and certificate students continued to fall up through 1966-67. In 1961-62 diploma students outnumbered degree students, but from 1962-63 on the balance was reversed. The ratio of all degree students to all diploma and certificate students was about  $4\frac{1}{2}$  to 1 as of 1971-72.

Degree students outnumbered diploma students in the engineering faculty from 1961-62 through 1971-72 and in agriculture and architecture from 1964-65 through 1971-72. As of 1971-72 the ratio of degree to diploma students was almost 2 to 1 in engineering, 3.5 to 1 in architecture, and almost 5 to 1 in agriculture. In the architecture faculty, moreover, no students have been receiving middle-level diploma training in fields other than planning since the discontinuance of the building technology course at the end of 1964-65. In pharmacy, the former certificate course was discontinued at the end of the 1962-63 academic year, and only degree students were being taught until the need for middle-level pharmacy personnel led to reintroduction of a diploma course in 1968-69. The Government's 1972 report on the 1968 manpower survey suggests a great need for subprofessional civil engineering personnel. The University introduced a diploma course to train such personnel in 1971-72.

*Graduates.*—The output of the institution (table 24) has followed roughly the pattern of enrollment distribution. The Faculty of Engineering was producing between 30 and 40 graduate engineers a year (in addition to a number of engineering diploma holders) in the late 1960's and almost 60 a year (in addition to more than 50 diploma and certificate holders) in 1970 and 1971. By 1971 the output of the Faculty of Architecture had increased to 64, including 42 holders of first degrees, 11 of subdegree diplomas, and 11 of postgraduate awards. One of the two rapidly growing faculties, the Faculty of Agriculture, which had produced less than 20 degree and diploma holders a year up through 1966, turned out 70 in 1971. In the other, the Faculty of Science, the number of graduates had increased sharply to 51 in 1971, and, given the large enrollments, could be expected to rise well beyond this figure in subsequent years.

In each of three major fields—engineering, agriculture, and architecture—the university has recently been producing more degree than diploma holders. In the 5 years from 1967 through 1971, the Faculty of Engineering, which had before 1966 trained more diploma than degree holders, produced 230 graduate engineers and 155 holders of the engineering diploma; the Faculty of Architecture produced 132 with the first degree and 78 with a diploma; while the Faculty of Agriculture was producing about twice as many degree as diploma holders. After reintroduction of the pharmacy diploma course, the university in the 2 years 1970 and 1971 turned out

almost as many graduates of this course as of the B. Pharm. program. It would appear that in certain fields where larger numbers of middle- than of high-level manpower are presumably required, the university has been producing more high-level than middle-level personnel.

#### *The University of Cape Coast*

*Total enrollment and output growth.*—Basic data on the number of students enrolled at the University of Cape Coast (University College of Cape Coast until 1971–72) and the number of degrees and diplomas awarded to these students appear in tables 25 and 26. As the first of these shows, total enrollment increased from 155 the first academic year to its peak of 1,122 in 1967–68. Having fallen off slightly to 1,041 in 1968–69, largely as a result of the removal of the associate certificate course and a decline in science student numbers, it dropped sharply to 797 at the beginning of 1969–70, largely because Cape Coast was enforcing its entry requirements more rigorously than in the past, and then fell again to 638 after the expulsion of most (159) of the students in the third (final) year of the science degree course. By 1971–72 Cape Coast again had more than 1,000 students, including 143 women and 25 non-Ghanaians. Except in 1970, when the institution lost most of its final year B. Sc. Education degree students, the number of graduates steadily increased each year and finally exceeded 200 in 1972.

*Enrollment distribution.*—Quite in accordance with its major assigned responsibility, the Cape Coast concentrated on producing degree-holding secondary teachers. Throughout the period from 1962–63 through 1971–72, most students were in the courses leading to first degrees (the preliminary arts and science courses and the arts and science degree courses) as opposed to postgraduate or other programs. As of 1971–72 less than 10 percent were in graduate programs. Because of a shortage of candidates having the Advanced-Level qualifications required for direct entry to the degree courses proper, the institution recruited most of its potential degree students from among those who had G.C.E. Ordinary-Level qualifications and took them into its preliminary courses to prepare them for the degree courses. The percentage of its student body enrolled in preliminary courses ranged between 34 and 57 percent during its first 4 academic years and between 19 and 27 percent during the next 6. As of 1971–72, one-fifth of all students were in these courses and almost three-fourths in degree courses proper.

In 1964–65, 1965–66, and 1966–67 the institution took in a large number of preliminary science students—presumably students not qualified for the Sixth Form—who heavily outnumbered their arts counterparts. During the 4 years 1965–66 through 1968–69, science preliminary and degree students outnumbered all arts preliminary and degree students. By 1970–71 the balance was reversed. The heavy earlier emphasis on science was never reflected in the output of the institution.

**Table 24.—Number of degrees, diplomas, and certificates awarded to students of the University of Science and Technology, Kumasi, by level, field of study, and award: 1957-72**

[... means that source gave no figure.]

Field of study and award	Total	1957-61	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
1	2	3	4	5	6	7	8	9	10	11	12	13	14
SUMMARY													
Grand total	2,423	93	73	110	100	165	153	215	199	251	365	385	314
Agriculture	405	8	16	10	2	19	15	31	57	44	48	70	85
Architecture <sup>a</sup>	503	5	13	42	33	41	26	65	41	53	57	64	63
Art	291	10	13	14	15	7	17	21	26	30	44	46	48
Engineering	780	43	26	42	43	74	65	67	44	78	130	113	55
Pharmacy	249	27	5	2	7	24	27	19	20	22	43	39	14
Science	195	.....	.....	.....	.....	.....	3	12	11	24	43	53	49

FIRST DEGREES

Total	1,405	30	26	21	34	94	93	132	130	137	213	259	236
Agriculture													
B. Sc. (Agriculture)	179	.....	.....	.....	.....	19	4	21	30	21	4	41	39
B. Sc. (Land Economy)	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	16	28
Architecture <sup>a</sup>													
B. Sc. (Building Technology)	89	.....	.....	.....	.....	1	10	9	5	11	20	16	17
B. Sc. (Design)	107	.....	.....	.....	.....	11	3	19	7	5	14	26	17
Art													
B.A. (Art)	187	.....	.....	.....	.....	7	14	15	20	20	37	35	39
Engineering													
B. Sc. (Engineering)	442	<sup>a</sup> 30	<sup>a</sup> 26	<sup>a</sup> 21	22	32	34	39	37	38	59	57	47
Pharmacy													
B. Pharm.	154	.....	.....	.....	7	24	25	17	20	21	23	17	.....
Science													
B. Sc.	187	.....	.....	.....	.....	.....	3	12	11	21	40	51	49



POSTGRADUATE DEGREES AND DIPLOMAS												
Total	1	13	12	27	14	39	27	28	25			
M. Sc. (Agriculture)	1						1					
Architecture <sup>2</sup>												
M. Sc. (Architecture)	36	10	3	4	5	13	1					
M. Sc. (Planning)	48	1	3	15		12	9	5	2			
Postgraduate Diploma in Architecture	18							6	12			
Art												
Postgraduate Diploma in Art Education	52		3	6	6	10	7	11	9			
Engineering												
M. Sc. (Engineering)	2						2					
M. Sc. (Sanitary Engineering)	4	2	1		1							
Postgraduate Diploma in Sanitary Engineering	2				2							
Postgraduate Diploma in Geodetic Engineering	6						2	2	2			
Pharmacy												
M. Pharm.	11		2	2		3	2	2				
Science												
M. Sc.	6					1	3	2				

OTHER DIPLOMAS AND CERTIFICATES												
Total	47	89	65	58	48	56	55	75	125	98	53	
Diploma in Tropical Agriculture	34	16	10									
Diploma in Tropical Horticulture	79			11	10	8	11	19	7	11		
Certificate in Estate Management	52		2			19	12	8	6	7		



Table 24.—Number of degrees, diplomas, and certificates awarded to students of the University of Science and Technology, Kumasi,<sup>1</sup> by level, field of study, and award: 1957-72—(Continued)

[... means that source gave no figure.]

Field of study and award	Total	1957-61	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Architecture<sup>2</sup></b>													
Intermediate R.I.B.A. <sup>3</sup>	24	.....	4	12	6	.....	.....	.....	.....	.....	.....	.....	.....
Diploma in Building Technology	30	5	4	9	6	.....	1	.....	.....	.....	.....	.....	.....
Intermediate Town Planning Institute <sup>4</sup>	9	.....	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diploma in Community Planning	49	.....	.....	17	13	.....	6	.....	.....	.....	.....	.....	.....
Diploma in Physical Planning	93	.....	.....	.....	.....	.....	.....	18	24	12	13	11	15
<b>Art</b>													
Art Teacher's Diploma	20	.....	6	4	10	.....	.....	.....	.....	.....	.....	.....	.....
Diploma in Fine Art	32	10	7	10	5	.....	.....	.....	.....	.....	.....	.....	.....
<b>Engineering</b>													
Certificate in Land Surveying	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	20	3
Diploma in Engineering	270	.....	.....	21	21	40	30	28	4	40	49	34	3
Engineering Institutions <sup>5</sup>	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Intermediate R.I.C.S. <sup>6</sup>	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Pharmacy</b>													
Pharmacy/Poison Board Certificate	33	26	5	2	.....	.....	.....	.....	.....	.....	18	20	14
Diploma in Pharmacy	53	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Kingdom.

<sup>2</sup> Intermediate Examination of the Royal Institute of Chartered Surveyors.

<sup>3</sup> Sources: University of Science and Technology, Kumasi. *Annual Report 1966-67*, p.

70-75. *Annual Report 1967-68*, pp. i-vii. *Annual Report 1968-69*, pp. 116-21, 123.

*Calendar 1967-68*, pp. 160-84. *Calendar 69-71*, p. 58. *Calendar 71-72*, p. 217. *Calendar*

*1972-74*, pp. 240, 241. *Results of University Examinations Final Year Students*

*May/June 1971*. Processed.

<sup>1</sup> Formerly the Kumasi College of Technology, 1951-61, and the Kwame Nkrumah

University of Science and Technology, 1961-66.

<sup>2</sup> Includes building and planning.

<sup>3</sup> B. Sc. (Engineering) external degree of the University of London.

<sup>4</sup> Intermediate Examination of the Royal Institute of British Architects.

<sup>5</sup> Intermediate Examination of the Town Planning Institute.

<sup>6</sup> Final examinations of the professional engineering institutions in the United

Table 25.—Number of students at the University of Cape Coast,<sup>1</sup>  
by level and course of study: 1962-63—1971-72

[. . . means source gave no figure.]

Level and course	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	
	1	2	3	4	5	6	7	8	9	10	11
<b>Grand total</b> ....	155	256	522	860	990	1,122	1,041	*797(638)	862	1,005	
Arts <sup>2</sup> .....	110	170	226	325	330	380	397	377	478	598	
Science <sup>3</sup> .....	8	24	223	436	550	660	611	*382(223)	326	316	
Other .....	37	62	73	99	110	82	33	38	58	91	
<b>Preliminary</b>											
Total .....	70	87	296	412	262	212	223	164	230	201	
Preliminary Arts ...	62	66	87	142	86	100	123	83	128	89	
Preliminary Science	8	21	209	270	176	112	100	81	102	112	
<b>First Degree</b>											
Total .....	48	107	153	349	618	828	785	595	574	736	
B.A. General (Education) .....	48	104	139	183	244	280	274	294	350	486	
B.A. Honours .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23	
B. Sc. General (Education) .....	.....	3	14	166	374	548	511	*301(142)	224	190	
B. Sc. Honours .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	
B. Ed. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23	
<b>Postgraduate</b>											
Total .....	.....	.....	19	33	44	29	33	38	57	65	
Diplomas in Ad- vanced Study of Education .....	.....	.....	.....	9	3	6	2	2	1	6	
Graduate Certificate in Education .....	.....	.....	19	24	41	23	31	36	56	59	
<b>Other</b>											
Total .....	37	62	54	66	66	53	.....	.....	1	3	
Associate Certificate in Education .....	.....	.....	27	66	66	53	.....	.....	.....	.....	
Special Science Teachers Course..	37	62	27	.....	.....	.....	.....	.....	.....	.....	
Special Admissions	.....	.....	.....	.....	.....	.....	.....	.....	1	3	

<sup>1</sup> University College of Cape Coast, until 1971-72.

<sup>2</sup> Arts preliminary and first degree courses.

<sup>3</sup> Science preliminary and first degree courses.

\* Figure in parentheses is the number of students after the expulsion of 159 students in the 3d year of the B. Sc. General (Education) degree course. The preceding figure is the number before the expulsion of these students.

Sources: University College of Cape Coast, Calendar 1967-68, p. 38. Calendar 1968-69, pp. 78, 79. Information Brochure, February 1969, p. 37. Statistics 1962/63—1969/70, February 1970, pp. 3-5. Statistics 1962/63—1970/71, February 1971, p. 5. University of Cape Coast, Student Statistics 1971/72, p. 7. Processed.

**Table 26.—Number of degrees, diplomas, and certificates awarded to students of the University of Cape Coast: 1964-72**

[... means that source gave no figure.]

Award	Total	1964	1965	1966	1967	1968	1969	1970	1971	1972
1	2	3	4	5	6	7	8	9	10	11
Grand total .....	1,333	30	89	145	181	168	177	129	188	226
<b>First degrees</b>										
Total .....	791	....	24	38	76	103	148	93	135	174
B.A. General (Education)	541	....	24	36	66	47	86	80	74	128
B. Sc. General (Education) .....	248	....	....	2	10	56	62	13	61	44
B. Sc. Honours .....	.....	....	....	.....	.....	.....	.....	.....	.....	*2
<b>Postgraduate</b>										
Total .....	278	....	16	30	42	20	29	36	53	52
Diploma in Advanced Study of Education .....	14	....	....	7	3	4	.....	.....	.....	.....
Postgraduate Certificate in Education .....	264	....	16	23	39	16	29	36	53	52
<b>Other</b>										
Total .....	264	30	49	77	63	45	.....	.....	.....	.....
Associate Certificate in Education .....	194	....	23	63	63	45	.....	.....	.....	.....
Licentiate in Education ..	14	....	....	14	.....	.....	.....	.....	.....	.....
Special Science										
Teacher's Diploma .....	56	30	26	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> University College of Cape Coast until 1971-72.

<sup>2</sup> B. Sc. Honours in Mathematics only.

Sources: (1) For 1964-70: University College of Cape Coast. *Statistics 1962/63-1969/70*, February 1970, p. 6. *Statistics 1962/63-1970/71*, February 1971, p. 6. (2) For 1971 and 1972: data provided to the author by the University of Cape Coast, August 1972.

*Failures in science.*—A large percentage of the students taken into preliminary science courses during the first 5 academic years (1962-63 through 1966-67)—many of whom were apparently not the best on-Level candidates available—failed during or at the end of their 4-year course, and the number of students actually receiving the B. Sc. Education degree was almost incredibly small when compared with the number of students who had begun the 4-year science program. The following tabulation, which presents the incomplete available figures for enrollment, by year of the science program, and the number of graduates in each of 9 academic years, reveals the contrasting numbers.

	<i>Preliminary</i>	<i>First</i>	<i>Second</i>	<i>Third</i>	<i>Number of B. Sc. Education degrees awarded at end of academic year</i>
1962-63	8				
1963-64	21	3			
1964-65	209				
1965-66	270				2
1966-67	176				10
1967-68	112	<sup>1</sup> 194	225	129	56
1968-69	100	<sup>1</sup> 110	<sup>1</sup> 175	<sup>1</sup> 230	62
1969-70	81	52	68	<sup>2</sup> 181— <sup>2</sup> 22	13
1970-71	<sup>3</sup> 102	58	61	64	61
1971-72	<sup>4</sup> 112	70	63	57	44

<sup>1</sup> Includes new students not previously enrolled in the institution.

<sup>2</sup> 181 before and 22 after expulsions.

<sup>3</sup> Includes 38 in 1st year, 64 in 2d.

<sup>4</sup> Includes 25 in 1st year, 87 in 2d.

In the 5 years from 1966 through 1970, Cape Coast turned out 143 degree holders qualified to teach science in the secondary schools. This total is only 21 percent of the total number of students who were enrolled in the preliminary science course in academic years 1962-63 through 1966-67, that is, the total number who might have hoped to graduate in the years from 1966 through 1970, along with the small number of students who had entered the class after the preliminary year. In other words, the wastage or failure rate was about 80 percent.

As the tabulation shows, the class of 209 students in the preliminary science course in 1964-65 had dwindled by 38 percent (80) to 129 in the third year of the degree course in 1967-68; and 73, or 57 percent, of these 129 failed to obtain degrees at the end of the academic year. As a result of failures during and at the end of the course, the number of graduates (56) constituted only 27 percent of the original preliminary class. The class of 270 preliminary science students in 1965-66 had lost only 15 percent of its number by the time this group reached the third year of the degree course in 1968-69, but 168, or 73 percent, of the remaining 230 did not pass their final examinations and obtain degrees! The number of graduates (62) constituted only 23 percent of the entering class 4 years earlier. In this case a very high failure rate at the very end of the 4-year course accounted for most of the attrition. Such a failure rate suggests that high standards of achievement were not maintained throughout the course and that a large number of students were allowed to continue in the program despite inadequate progress, only to fail at the very end.

When the results of the 1969 examination were published in the summer of 1969, "the college came under fierce public criticism on account of the large number of failures" and this "led to a decision to intensify teaching and examination" in the science faculty "in future in a way that had never been attempted before and various other measures, including many



recommended by the special Council Committee of Enquiry appointed to investigate the previous year's science results, which had been equally poor, were put in hand."<sup>20</sup>

There were to be more difficulties before the situation improved. The university set an assessment examination for students in the second year of the science degree course in 1968-69, presumably because of serious questions concerning their academic progress. This examination was postponed until December 1969. Most (159) of the 181 students (who were then in their third year) again refused to take the examination and "triggere'd off a general student demonstration in support of their stand."<sup>21</sup> In January 1970, they were suspended for the remainder of the academic year and sent home, but offered the opportunity of returning and trying the same examination at the end of the academic year. Only 22 students remained to take the final science degree examination in June 1970 and 9 of these 22 were successful. Of the suspended students who returned to take the assessment examination, 24 were successful and were offered places in the third year in 1970-71.

This sad period of very disappointing results in science, during which UNESCO-recruited personnel filled a number of positions in the science faculty, seems now to be well in the past. The Principal said in July 1970 that the institution "must never again make the mistake of pushing quantity at the expense of quality."<sup>22</sup> and there is evidence in the enrollment data for the years since 1968-69 of a new policy of admitting fewer, better qualified students to the preliminary science course and strengthening their preparation and also of promoting from year to year only students performing well. The situation has improved. In 1971 and 1972 the number of science graduates represented a much higher percentage (55 and 44 percent, respectively) of the preliminary science class that had entered 4 years earlier than did the number of science graduates in the previous years, and the percentage of third-year science degree students passing their final examinations and obtaining their degrees was a great deal higher than in previous years.

*Arts students and graduates.*—In arts the results were more satisfactory, as is shown by the following incomplete available figures for enrollment, by year of the arts course, and by number of graduates:

<sup>20</sup> "Address Delivered by the Principal Prof. E. A. Boateng, to Convocation on Wednesday, 1st July, 1970." *Annual Report 1969-70 by the Principal, University College of Cape Coast*, pp. 140-41.

<sup>21</sup> *Ibid.*, p. 141.

<sup>22</sup> *Ibid.*, p. 144.

	<i>Preliminary</i>	<i>First</i>	<i>Second</i>	<i>Third</i>	<i>Number of B.A. Education degrees awarded at end of academic year</i>
1962-63	62	48			
1963-64	66				
1964-65	87				24
1965-66	142				36
1966-67	86				66
1967-68	100	<sup>1</sup> 108	110	62	47
1968-69	123	<sup>1</sup> 95	<sup>1</sup> 88	<sup>1</sup> 93	86
1969-70	83	126	80	88	<sup>2</sup> 80
1970-71	128	138	135	77	74
1971-72	89	245	114	127	128

<sup>1</sup> Includes new students not previously enrolled in the institution.

<sup>2</sup> Includes 6 external candidates.

In the 7 years 1966 through 1972, a total of 517 B.A. Education degrees were awarded. This is about 78 percent of the total 666 who took the arts preliminary course in the 7 academic years 1962-63 through 1968-69 and might have earned degrees in the years 1966 through 1972. Other students entered the course after the preliminary arts year, so the percentage of all potential candidates who did successfully complete the course in the years 1966 through 1972 was less than 78 percent and the wastage rate more than 22 percent.

#### *Summary*

The expansion of higher education went forward in the early 1960's at a time when the secondary schools were not turning out an adequate number of Sixth Form graduates, and particularly Sixth Form graduates in science, who could meet the high admission requirements maintained for university degree courses. There were simply not enough graduates to fill the various university programs. Partly because of the shortage of good science candidates, the University of Ghana took in many more arts than science students. Both the University of Science and Technology and the University College of Cape Coast admitted large numbers of students having only Ordinary-Level qualifications and gave them preliminary or predegree courses to bring them up to Advanced-Level standard and thus prepare them for their university-level programs.

Later in the decade the University of Science and Technology reported it had more qualified applicants than it could take in, and, seeing no further need to prepare students to meet its own entrance requirements, stopped most of its preliminary courses. But even in the early 1970's the University of Ghana was still experiencing the shortage of adequately qualified applicants for its degree program in science and agriculture; and the University of Cape Coast, apparently experiencing a shortage of qualified applicants for its science degree course, continued its preliminary science course. The continuing shortage of candidates for certain programs reflected the scale of preferences of entering university students. The best

science students tended to choose medicine, engineering, and other professional programs, which seem to be regarded as offering greatest prestige and potential material rewards. Teaching, both because of its status and material rewards, has been considered a last resort.

Because of the inadequate pool of secondary school science graduates and the way in which the universities responded to this situation, a considerable proportion of all university students throughout most of the 1960's were in preliminary rather than university-level programs proper. A good part of the overall growth that higher education achieved during the early 1960's reflected enrollments at this Sixth Form level. The use of a considerable percentage of student places for pre-university rather than university-level courses inevitably reduced the potential output in a given period of time from a given number of places. Moreover, at least at the University College of Cape Coast for a few years, the failure rates among science students originally taken in at Ordinary-Level and given a preliminary course before proceeding to the degree course were extremely high, and the output in university graduates most disappointing.

The balance between arts and sciences at the University of Ghana and between degree and diploma programs both there and at Kumasi were also, of course, clearly reflected in the output.

The tabulation below shows the combined output of all three institutions of first degree and subdegree diploma or certificate holders in each of several obviously important fields in each of the 5 years 1967 through 1971, together with the earlier output.

	Total	Before					
		1967	1967	1968	1969	1970	1971
Agriculture							
Degrees .....	278	114	26	42	21	14	61
Diplomas .....	203	59	18	21	31	42	32
Architecture and planning							
Degrees .....	91	19	19	7	6	14	26
Diplomas .....	132	54	18	24	12	13	11
Building							
Degrees .....	72	11	9	5	11	20	16
Diplomas .....	39	30	---	---	---	---	---
Education <sup>1</sup>							
Degrees .....	617	62	76	103	148	93	135
Engineering							
Degrees .....	<sup>2</sup> 389	160	39	36	38	59	57
Diplomas .....	270	114	28	4	41	49	34
Medicine							
Degrees .....	95	---	---	---	39	25	31
Pharmacy							
Degrees .....	154	36	17	20	21	23	17
Diplomas .....	70	34	---	---	---	16	20
Science							
Degrees .....	772	345	55	63	72	100	137

<sup>1</sup> Output of the University of Cape Coast only. Many graduates of the other universities have, of course, become secondary school teachers.

<sup>2</sup> Excludes 6 who passed examinations of British engineering institutions before the beginning of degree examinations.

The tabulation needs little comment. The Faculties of Agriculture of the University of Ghana and the University of Science and Technology, which had apparently suffered as a result of the Nkrumah Government's plans to establish a single agricultural college, together turned out 164 graduates and 144 diploma holders in agriculture during the 5-year period 1967 through 71, or an annual average of 33 degree and 29 diploma holders. The annual output of professional engineers had increased to nearly 60 and exceeded the output of subprofessional engineering personnel.

In the mid and late 1960's the universities began to turn out Ghana's first locally trained doctors and degree holders in pharmacy, along with hospital administrators and nursing instructors; and after the need had become very clear the universities reinstated the training of subprofessional personnel in pharmacy who were not being trained after the early 1960's. The output of doctors from the medical school—95 by 1971 and hopefully 50 to 60 a year thereafter—would unquestionably improve the situation but still leave much to be done. In October 1969, noting that Ghana had one doctor per 14,000, that many expatriates were still on the medical register, and that more than 160 Ghanaian doctors trained abroad had failed to return to Ghana, the University of Ghana's vice chancellor declared that an output of doctors of the size the medical school could produce, although encouraging, was "woefully inadequate for the health needs of this country."<sup>23</sup>

In the 1972 report on the 1968 manpower survey (discussed later) the Manpower Division listed critical, greatly needed skills that in its view might continue to be in short supply for 5 or 10 years. Those listed and produced by Ghana's own universities included not only doctors and secondary school teachers, shortages of whom had long been evident, but many others as well. They included managers (including technical managers) drawn from holders of degrees in arts, public administration, science, and engineering; administrators; doctors and pharmacists; engineers and subprofessional engineering personnel, especially in civil engineering; architects, and surveyors and survey assistants; agriculturists; scientists and mathematicians; accountants and subprofessional accounting personnel, statisticians, and economists; and secondary school teachers of science and mathematics.

It may be added at this point that in recent years, partly no doubt, because of the increasing output of the University of Cape Coast and other universities and declining opportunities elsewhere for university graduates, the number of Ghanaian university graduates teaching in secondary level institutions—secondary schools, teacher-training colleges, and technical in-

<sup>23</sup> "Vice-Chancellor's Address at Special Congregation for the First Graduates of the Ghana Medical School," *Annual Report by the Vice-Chancellor for 1969-70*. University of Ghana, p. 8. The address was given Oct. 25, 1969.

stitutions—has increased significantly and Ghana is no longer as dependent upon expatriate graduate staff as she was not so many years ago. As of 1971-72, however, there were still 647 non-Ghanaian graduates teaching in these institutions, of whom 520 were teaching English language, French, mathematics, sciences, and unspecified subjects in technical institutions, as the following tabulation shows.

	<i>Expatriate graduate staff</i>			
	<i>All institutions</i>	<i>Secondary schools</i>	<i>Teacher-training colleges</i>	<i>Technical institutions</i>
<i>All subjects</i> -----	647	508	110	29
English language -----	101	77	24	--
French -----	78	78	---	---
Mathematics -----	109	86	23	---
Science:				
General Science -----	71	36	35	---
Physics -----	48	48	---	---
Biology -----	44	42	2	---
Chemistry -----	34	34	---	---
Other -----	6	4	2	---
Unspecified technical subjects	29	---	---	29
Other -----	127	103	24	---

The figures of course suggest the subjects in which an insufficient number of Ghanaian graduates willing to teach have been turned out by Ghana's universities and others, and the areas in which there may be continuing shortages.<sup>24</sup>

#### *Study Abroad*

Data on Ghanaian students studying abroad in recent years are very hard to come by. It is possible that the 1972 report on the 1968 manpower survey was the first Ghanaian publication in many years to present detailed data of this kind. The report indicates that in 1970 a total of 1,667 Ghanaians were studying abroad on Ghanaian Government and/or foreign Government scholarships, and a review of the detailed data presented suggests that the approximate number in each of several important fields was as follows:<sup>25</sup>

Medicine (including premedicine)	371
Dentistry	48
Pharmacy	7
Agriculture (including animal science and agricultural engineering)	133

<sup>24</sup> For a comprehensive analysis of the supply of and demand for secondary level teachers, both graduate and nongraduate, see: John W. Hanson, *Secondary Level Teachers: Supply and Demand in Ghana*. East Lansing: Michigan State University, 1971.

<sup>25</sup> Republic of Ghana, *High Level and Skilled Manpower Survey in Ghana (1968) and Assessment of Manpower Situation (1971)*. Accra: Ghana Publishing Corporation, 1972. pp. 46-52.

Veterinary medicine	32
Forestry	8
Engineering	221
Science	97
Mathematics	10
Accountancy	91
Economics	62
Architecture	19

The report stated that the current records at the Scholarships Secretariat, which organizes all overseas training, were "neither complete nor up to date" and that a study of Ghanaian students studying abroad, in which the Manpower Division was to participate, was to be undertaken.<sup>26</sup>

### Education and Manpower Requirements

As discussed earlier in this chapter, the educational system has for many years been turning out from the middle and other levels large numbers of school leavers, most of whom have received only a general education and many of whom have had difficulties—at least in recent years—in finding employment. (Recognized for some time, this problem has led directly to some of the reforms within the system.)

Also, the system has not been meeting the country's needs for high- and middle-level manpower in many areas. This situation was not clear, however, from the early 1960's until 1972. A manpower survey had been carried out in 1960, but one leading educator declared that it had become almost immediately out-of-date. Another survey was conducted in 1963, but the results were not published until 1972.

In the meantime, there were no firm data on requirements against which to measure the output either of the universities, which, together with overseas institutions, provided Ghana's high-level manpower, or of the educational institutions producing middle-level personnel. The extent to which they were meeting requirements or overproducing or underproducing graduates in various fields was therefore open to conjecture. Thus, speaking in 1971, the vice chancellor of the University of Ghana stated: "Despite the dire predictions of the prophets of gloom, we are yet to be convinced that the labour market for graduates is nearing saturation point. It is certainly becoming more competitive." During the academic year 1970-71 the university set up a Placement Services Centre to investigate and advise its students "on what employment opportunities there may be."<sup>27</sup> The vice chancellor of the University of Science and Technology, speaking the previous year, noted that "we lack knowledge of what the manpower re-

<sup>26</sup> Ibid. p. 29.

<sup>27</sup> "Vice-Chancellor's Address to Congregation 13th March, 1971," *University of Ghana Reporter*, 10:23:593-94, May 21, 1971.

quirements of the country really are" but added that, as he saw it, there was "no danger for some time to come of this University over-producing the type of personnel whom we train here."<sup>28</sup>

The 1972 report on the 1968 survey<sup>29</sup> finally provided much of the missing information. The aim of the survey was not to cover the entire labor force in the economy as a whole but to obtain as much information as possible on the current stock and spread of, and on the current and future needs for, high-level and skilled manpower in some sector of the economy. It excluded all farming activities outside the public sector and all establishments not employing skills pertinent to the development effort. It also excluded the Armed Forces. In the remaining area it covered all establishments employing 20 or more persons. These numbered 1,150 and employed 339,274 (compared with the estimated total recorded wage employment figure of 391,261).

The establishments were asked to report actual 1968 employment and vacancies and estimated employment figures for 1969 and 1970. High-level and skilled occupations were classified in the following four major categories: Administrative and managerial; professional; middle-level subprofessional and technical; and skilled craftsmen and foremen.

A number of problems were encountered. Many of the establishments were not in a position to forecast their future business activities, for these would be influenced by factors outside their control, such as governmental fiscal policies, restrictions on the importation of raw materials and supplies, and external competition; and they therefore found it difficult to indicate their future manpower requirements. Others, particularly within the public sector, were unable to increase employment "not because there were no felt needs but because of budgetary restrictions."<sup>30</sup> Also, as a result of difficulties in obtaining certain types of skills, "most establishments were not keen on declaring vacancies for the simple reason that they believed they could not find the people to fill them."<sup>31</sup> Thus, some of the reported figures could have been based solely on budgetary allocations and the availability of skilled personnel. Those responsible for the survey report considered the 1969 and 1970 figures less reliable than those for 1968 and in many cases unrealistically low.

The following are some of the summary figures for major categories of manpower that the survey report presents.<sup>32</sup>

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<sup>28</sup> "Vice-Chancellor's Congregation Address February 28, 1970." *Annual Report 1968-69*. University of Science and Technology, Kumasi, p. 13.

<sup>29</sup> Republic of Ghana, Manpower Division, Development Planning Secretariat, *High Level and Skilled Manpower Survey in Ghana (1968) and Assessment of Manpower Situation (1971)*. Accra: Ghana Publishing Corporation, 1972.

<sup>30</sup> *Ibid.* p. 17.

<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.* p. 7.

	1968 Employment		1968	Projected
	Total	Non-Ghanaian	Vacancies	1970 employment
Total -----	177,204	8,583	14,080	193,719
Administrative and managerial	5,260	612	767	6,709
Professional -----	7,944	1,975	980	9,515
Middle level				
Subprofessional and technical	63,799	423	1,986	71,703
Administrative and				
managerial -----	52,853	2,616	8,404	60,917
Skilled foremen and craftsmen	42,348	2,957	1,943	44,875

The report declared the findings "prove beyond doubt that many more trained people are needed in the high level manpower segment of the active labour force."<sup>33</sup> Ghana still faced shortages in the administrative and managerial, professional, and middle-level categories. The report said that if the 1969 and 1970 estimated requirements were close to reality, "the administrative and managerial category constitutes a critical area of concern,"<sup>34</sup> and pointed out that the requirements in the professional category, which includes doctors, engineers, and so on, were even greater than in the administrative and managerial category. "This category equally requires greater attention and emphasis. The skills needed to propel the development effort are found in this category."<sup>35</sup> The vacancies in these two categories, taken as a proportion of total actual employment in them, were more pronounced than in the other two categories, and in this sense were the most "critically handicapped or limited in terms of size or numbers."<sup>36</sup>

On the basis of the revealed ratio between the number of professional persons and the number of subprofessional/technical persons, who support the former, the report said that "the shortages of sub-professional/technical personnel" were "more acute" than those of professional personnel, and that this third category was "another critical area."<sup>37</sup> Of the 68,799 in the subprofessional and technical category, 47,866 were primary and middle school teachers. Only the remaining 20,933 were nonteaching personnel in construction, engineering, and other occupations. When related to the number in the professional category this figure yielded a ratio of 1 professional man to 2.5 subprofessional/technical ones—"an unusual ratio compared with the standard or acceptable ratios in the developed countries where the relationship is of the nature of about 1 professional man to 4 or 5 sub-professional/technical men."<sup>38</sup> Moreover, 423 of the subprofes-

<sup>33</sup> Ibid. p. 10.

<sup>34</sup> Ibid. p. 6.

<sup>35</sup> Ibid. p. 6.

<sup>36</sup> Ibid. p. 9.

<sup>37</sup> Ibid. pp. 9-10.

<sup>38</sup> Ibid. p. 9.



sional/technical employees were non-Ghanaians. "This is a skill category the supply of which Ghana should by now not depend on outside sources."<sup>39</sup> In addition, the vacancy figure of 1,986, which represented only nonteaching subprofessional personnel, was "low because of the very limited supplies of such personnel and because employers are not keen on declaring vacancies which they cannot easily fill. There is also the tendency to overcome certain skill needs by makeshift arrangements which have the effect of hiding certain vacancies."<sup>40</sup>

As for the fourth major category, skilled craftsmen and foremen, the report concluded:

The problem here is definitely not one of numbers but most probably one of efficiency or low standards as most employers would prefer to retrain. The need, therefore, would be to retrain or upgrade quite a number of the personnel in this category.<sup>41</sup>

Figures relating to a few specific occupations, either drawn directly from the report or calculated on the basis of data in the report, are as follows:

	1968 employment		1968	Additional requirements 1969 and 1970	Apparent needs as of 1971 (Total of columns 3, 4, and 5)
	Total	Non-Ghanaians	Vacancies		
Administrators .....	3,460	130	629	366	1,125
Managers .....	1,298	306	68	964	1,338
Doctors .....	524	167	157	67	391
Dentists .....	43	5	14	5	24
Pharmacists .....	482	5	27	15	47
Surveyors .....	70	2	26	10	38
Geologists .....	30	9	9	0	18
Engineers					
Chemical .....	3	3	0	2	5
Civil .....	364	104	44	14	162
Electrical .....	150	36	15	20	31
Mechanical .....	293	125	24	2	151
Mining .....	13	9	0	0	9
Metallurgical .....	6	1	0	4	5
Technical managers .....	459	173	70	111	354
Architects .....	60	27	5	2	34
Agronomists .....	382	7	152	165	324
Agricultural engineers .....	24	5	0	0	5

<sup>39</sup> Ibid. p. 10.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

Veterinary surgeons	25	0	6	3	9
Accountants	1,468	89	132	983	1,204
Statisticians	52	0	7	0	7
Economists	150	1	35	25	61
Teachers					
University	697	288	58	0	346
Secondary	1,886	1,040	0	0	1,040
Technical	381	27	16	49	92
Librarians	50	0	13	13	26
Subprofessional accounting personnel	4,620	110	469	1,230	1,809
Stenographers, typists	5,077	136	551	1,775	2,462
Civil engineering technicians	145	6	65	52	123
Draftsmen	959	6	143	79	228

Obviously, the information reported by the establishments indicated that very large numbers of administrators, managers, accountants, secondary school teachers, subprofessional accounting personnel, and stenographers and secretaries were needed. But in the case of most occupations the figures were not huge, leaving the impression that there were no substantial needs for most skills. Those responsible for the survey concluded that these figures were not indicative of the magnitude of requirements and that the impression they created was wrong. They felt that in the case of a number of occupations, including veterinary surgery, statistics, electrical and broadcast engineering, geology, architecture, and pharmacy, the estimated requirements for 1969 and 1970 were unrealistically low.

It was therefore considered "futile" to attempt "any meaningful projections of manpower needs for the next five years or more."<sup>42</sup> Instead, the Manpower Division planned to conduct annual manpower surveys over a period of perhaps 5 years or more to study the manpower position and developments in the economy in the hope that these would provide sufficient information to indicate trends which could serve as the basis for realistic projections of manpower needs.

The Manpower Division did, however, list what in its view were critical, greatly needed skills within the first three categories that, given the numbers in the education pipeline, might continue to be in short supply for 5 or 10 years. Within the first two categories, the following occupations were listed: managers of all types and administrators; doctors, dentists, and pharmacists; engineers, architects, and surveyors; agriculturists, veterinarians, and conservators of forests; geologists, other scientists (chemists, physicists, botanists, zoologists, etc.), and mathematicians; secondary school teachers of science and mathematics; librarians; and accountants, statisticians, economists, and actuaries.

With respect to doctors, the Manpower Division stated the needs re-

<sup>42</sup> Ibid. p. 19.

ported during the survey were "based on the ability of the medical services to pay and on the availability of personnel." It declared that, in fact:

The needs for doctors are so huge that it will require, for sometime, extraordinary budgetary provision for emoluments, and essential facilities to be able to make a significant impact on this situation.<sup>42</sup>

As for pharmacists, it said the reported requirement figures, which did not rise as sharply as one might have expected, could have been based on budget allocations and availability of personnel rather than real needs and that they did not include requirements of establishments not covered by the survey. It pointed out that as of 1970 the economy had been able to absorb the entire output of pharmacists from Kumasi and that the demand for pharmacists was still strong. The existing rate of production could at least be maintained.

Similarly, the figures for veterinarians could have reflected only what the budget could accommodate. In view of the emphasis on meat production and animal husbandry, an expansion of activities and an increase in personnel could be expected.

Expansion of surveying activities to meet the increasing need for effective land registration was described as "very urgent" and it was pointed out that a conference held at Kumasi on manpower requirements in this field estimated that 10 professional surveyors would be needed each year for the next 10 years and that four survey assistants or technicians would be required for each professional surveyor.

The Manpower Division also said that the shortage of accountants was "critical in view of the vital role that accounting activities play in the developing economy" and that it was "very necessary to review critically existing training facilities for accountants."<sup>44</sup> As for statisticians, it concluded that the small number employed in 1968 must have been "the result of budgetary or other limitations rather than the mere absence of needs. . . . This again is one of the important and scarce skills in the economy the potential requirements for which are fairly sizeable."<sup>45</sup>

Within the middle-level subprofessional and technical category the occupations the Manpower Division listed included those for nurses, midwives, and medical technologists and technicians; technologists and technicians in engineering, building, transport, and communications; draftsmen; survey assistants; veterinary and agricultural extension assistants; laboratory technicians; middle-level management, administrative, and accounting personnel; and secretaries, stenographers, and typists. On the basis of the output of diploma holders in mechanical, electrical, and civil engineering by the University of Science and Technology, it concluded that

<sup>42</sup> Ibid. p. 24.

<sup>44</sup> Ibid. p. 23.

<sup>45</sup> Ibid. p. 15.

there had been a slack in the production of civil engineering technicians and that the output of skills in this category needed to be increased considerably. It declared that medical technologists and technicians were in critically short supply throughout the medical services.

In addition, the Manpower Division stated that it would take a fairly long time to meet the need for engineers, chemists, geologists, doctors, dentists, statisticians, actuaries, veterinarians, and all those named in the subprofessional and technical category, whereas the other requirements could be met in the not too distant future. It also pointed out that persons in certain occupations, although important and scarce, were required in only relatively small numbers and that therefore with careful planning the needs could more easily be met and in a comparatively shorter time. It listed as within this category veterinary surgeons, actuaries, architects, conservators of forests, librarians, dieticians, and professional specialists in the fields of medicine, engineering, and agriculture.

Some of the occupations cited by the Manpower Division are listed below together with (1) the total of 1968 vacancies and expatriate employees and estimated additional requirements by 1970, as reported during the manpower survey (see tabulation above), (2) the output of personnel in these fields from Ghana's universities in 1969 and 1970, as given in the manpower survey report, and (3) the number of persons studying abroad in each field who were scheduled to finish their training in 1970, also as given in the manpower survey report. The Manpower Division considered many of the figures pertaining to requirements unrealistically low and those pertaining to students abroad tentative, but they are the only ones available to suggest the approximate manpower situation (as of 1971).

	1968-70 requirements	1969 and 1970 output of Ghanaian universities	Estimated 1970 output abroad
Administrators <sup>1</sup> .....	1,125	-----	-----
Managers <sup>1</sup> .....	1,338	-----	-----
Accountants .....	1,204	-----	0
Statisticians <sup>1</sup> .....	7	-----	2
Economists .....	61	64	17
Engineers			
Chemical .....	5	-----	3
Civil .....	162	27	9
Electrical .....	31	31	16
Mechanical .....	151	38	9
Mining .....	9	-----	1
Metallurgical .....	5	-----	1
Architects .....	34	14	6
Surveyors .....	38	3	1
Geologists .....	18	2	4
Technical Managers <sup>2</sup> .....	354	-----	-----
Doctors .....	391	64	99

Dentists -----	24	-----	4
Pharmacists -----	47	<sup>3</sup> 78	0
Agronomists -----	324	35	18
Agricultural Engineers -----	5	-----	3
Veterinary Surgeons -----	9	-----	2
Teachers			
University -----	346	-----	-----
Secondary -----	1,040	(4)	-----
Technical -----	92	-----	-----

<sup>1</sup> The report indicates that the personnel needs of these occupations are met mainly by holders of degrees in arts, public administration, and science who are hired and trained, mostly on the job, for these positions and that the 1969 and 1970 output of such degree holders from Ghanaian universities totaled 792, compared with the reported total need for 2,191 persons in these occupations.

<sup>2</sup> Technical managers may be holders of engineering degrees of all types or graduates in related technical or scientific fields, such as biochemistry, nutrition, chemistry, physics, and food science.

<sup>3</sup> University reports show a total 1969 and 1970 output of 65 (44 first degrees, 5 post-graduate degrees, and 16 subdegree level diplomas).

<sup>4</sup> Not presented in the manpower survey, the 1969 and 1970 output of potential secondary school teachers from the University of Cape Coast was 306 (241 awarded first degrees and 65 awarded the graduate certificate). Graduates of the other universities also fill these positions.

Not surprisingly, the report on the manpower survey contained some critical comments on the educational system. Discussing the shortages of professionals with science- and mathematics-based skills, such as engineers, geologists, architects, physical scientists and mathematicians, medical personnel, and surveyors, the authors declared:

A more serious effort at remedying the situation is urgently needed. The solution is not a simple one. It involves reviewing and restructuring the educational system—to place emphases on the right places—e.g., the teaching of science and mathematics and the introduction of the appropriate incentives to help produce the skills in this category.<sup>46</sup>

Elsewhere, pointing out that the two main defects in the active labor force of the country were low skill levels and acute shortages, the authors stated:

The defects are largely due to lack of adequate and realistic planning of our training and educational programmes: there has been very little effort, if any, to relate or gear educational development specifically to the needs of the growing economy. Education has not significantly shifted from its traditional role of providing basic education to its beneficiaries. The focus has been more general in most cases than direct or specific with the result that the economy is not supplied with its entire needs of trainable persons (output of the schools/institutions) both quantitatively and qualitatively.

The system does not seem all along to have benefited from the experiences and advice or requirements of employers, industrialists or the users of the products of the schools. The result is that the economy to some extent is made to cope with what it gets out of the institutions. Whilst the formal educational in-

<sup>46</sup> Ibid. p. 9.

situations are not expected to produce men and women tailor-made to the requirements of industry or the economy there is much room and possibility for their moving or shifting a bit from their traditional positions to a role more oriented to meeting our developmental needs. The other major cause of the defects in the active labour force stems from the absence of any targets—in terms of requirements to which the educational institutions can address themselves. Any measures aimed at remedying Ghana's manpower deficiencies should aim at:

- (1) Identifying and determining as accurately as possible the manpower requirements;
- (2) Gearing the educational facilities to the extent that they can produce the needed skills.<sup>47</sup>

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<sup>47</sup> Ibid. p. 11.

# Appendix

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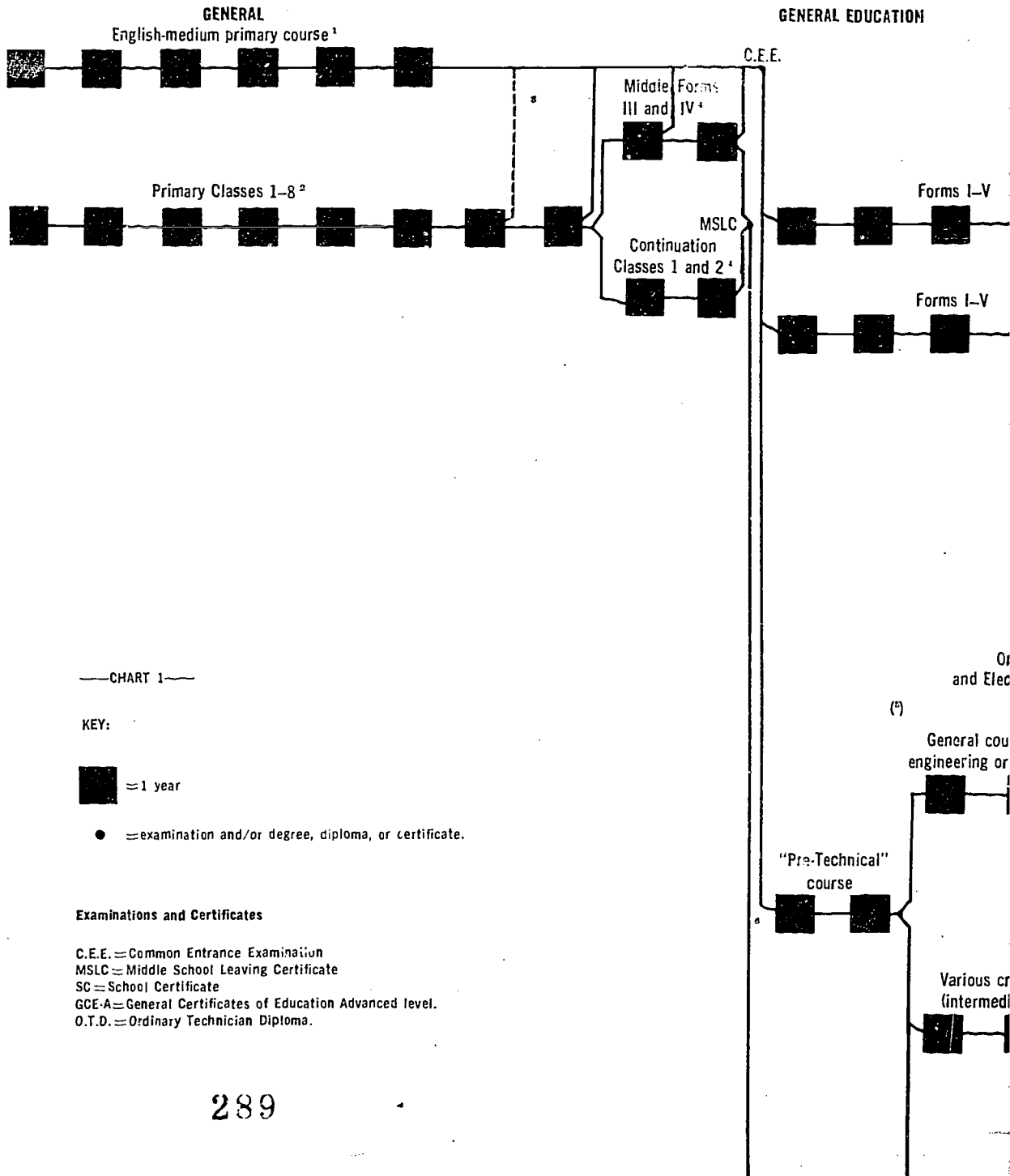
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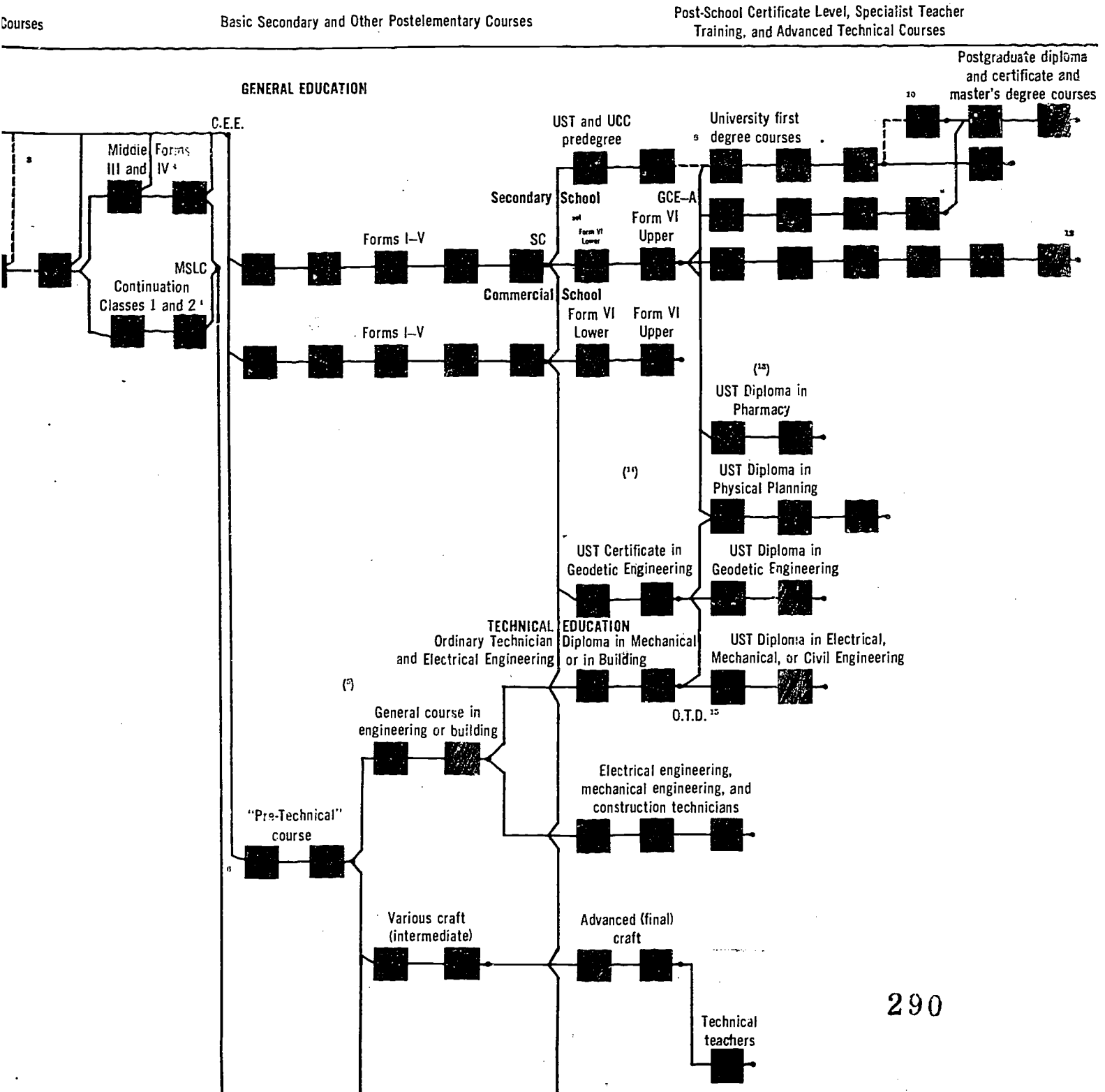
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# Chart—Educational structure in Ghana

Elementary (Primary and Middle School) Courses      Basic Secondary and Other Posters



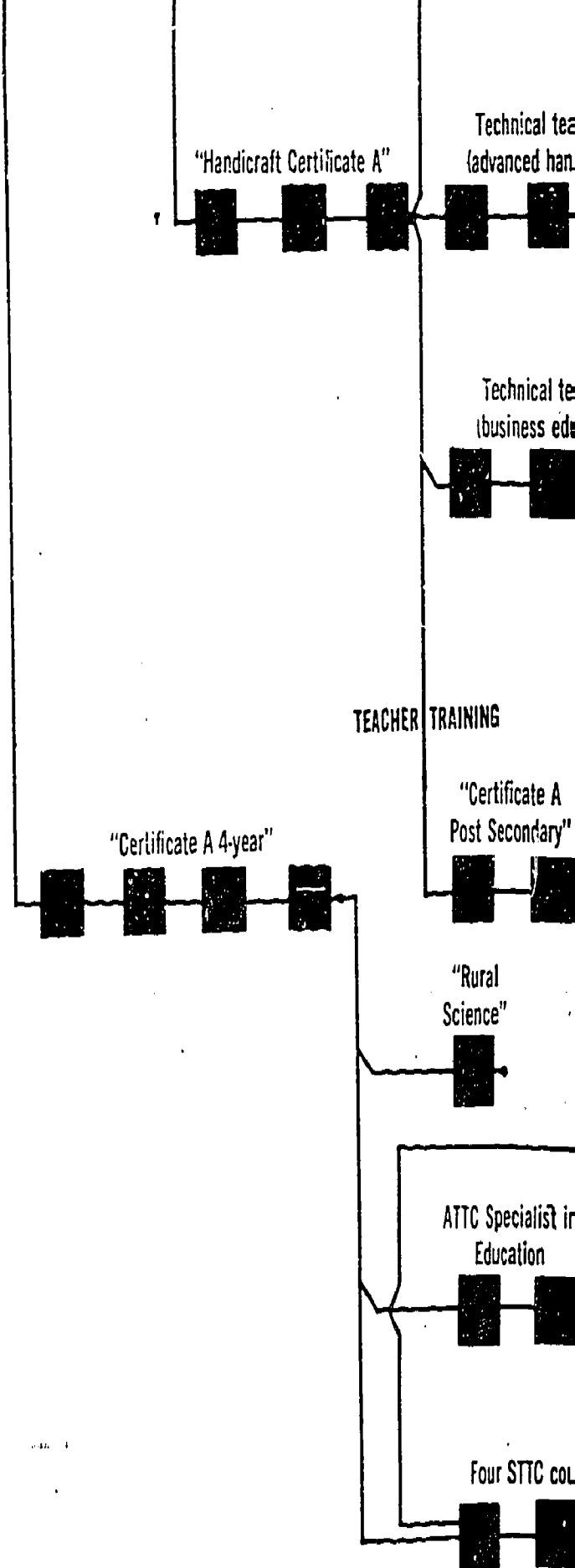
Chart—Educational structure in Ghana: 1972-73



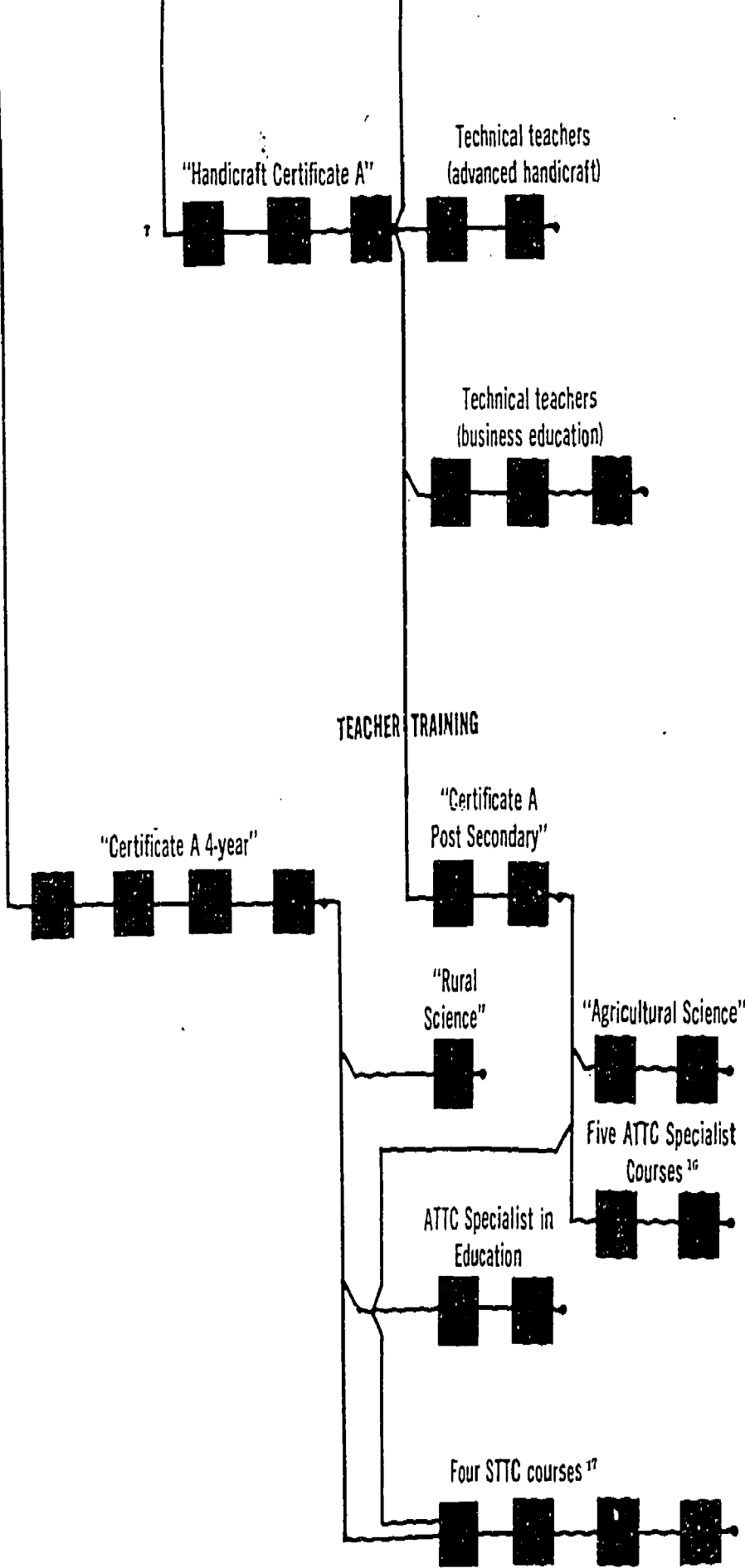
## Institutions

ATTC = Advanced Teacher Training College, Winneba  
 STTC = Specialist Teacher Training College, Winneba  
 UCC = University of Cape Coast  
 UG = University of Ghana  
 UST = University of Science and Technology

- 1 Few schools offer this course.
  - 2 Classes 1-6 are given in the 6-year primary schools and classes 7 and 8 in the 4-year middle schools. Classes 7 and 8 are also called, respectively, Middle Form I and Middle Form II.
  - 3 Only 7th grade students in selected middle schools may take the C.E.E.
  - 4 Offered in the third and fourth years of the 4-year middle schools.
  - 5 Three and four-year business studies and other courses offered at this level in Technical Institutes not depicted.
  - 6 The Technical Institutes admit only students who have taken the C.E.E. after completing Middle Form IV.
  - 7 Admission after a 2-year pretechnical course at a Technical Institute or after the 1-year pretechnical course at the institution (Mampong) giving the Handicraft Certificate A course.
  - 8 The UST pre-art course and the UCC Preliminary Science course, which lead, respectively, to the UST B.A. (Art) course and the UCC B. Sc. General (Education) course.
  - 9 Three-year university degree courses are the UCC B.A. General (Education), B.A. Honours (Education), B. Ed., B. Sc. General (Education); UG B. A. A., B. A. General, B.A. Honours, B. Sc. (Administration), B. Sc. Economics, B. Sc. General, B. Sc. (Home Science) General, LL.B.; and UST B.A.
  - 10 The UCC B. Sc. Honours (Education) which follows the UCC B. Sc. General (Education) and the UG B. Sc. Honours which follows the UG B. Sc. General.
  - 11 Four-year university degree courses are the UG B. Sc. (Honours) Agriculture and the UST B.A. (Art), B. Sc., B. Sc. (Agriculture), B. Sc. (Building Technology), B. Sc. (Design), B. Sc. (Engineering), B. Sc. (Land Economy), B. Sc. (Planning), and B. Pharm.
  - 12 M.B., Ch.B.
  - 13 Other courses at this approximate level that are not depicted include the UG Special Diploma in General Agriculture (1 year), which follows the School Certificate and the UST Diploma in Agriculture and the National Diploma in Agriculture (2 years), which follows a 3-year postsecondary course.
  - 14 Other courses at this level that are not shown include the UG Certificate in Statistics (1 year) followed by the Higher Certificate in Statistics (1 year), the UG Diploma in Hospital Administration (3), the UST Diploma in Tropical Horticulture (2), the Tarkwa School of Mines mining engineering course (3), and the Polytechnics' institutional management (3), business studies (2), accountancy (2 part time), secretaryship (2 part time), and other courses.
  - 15 Holders of the O.T.D. who also have the required G.C.E.-A level passes may also enter degree courses in the Faculty of Architecture of UST.
  - 16 in English, geography, history, general science, mathematics.
  - 17 in art, home science, music, physical education.
- School Certificate holders as well as holders of the Certificate A 4-year may enter one course (home science).



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