AN HISTORICAL INQUIRY INTO THE DEVELOPMENT OF HIGHER EDUCATION IN GHANA 1948-1984: A STUDY OF THE MAJOR FACTORS THAT HAVE CONTROLLED AND INHIBITED THE DEVELOPMENT OF THE UNIVERSITIES OF GHANA

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

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By

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Universities in many industrialized countries including Japan, and Australia, have enabled those countries to achieve rapid economic and social advancement. However, this is untrue for the universities of Ghana, due to the country’s ailing economy, its continued dependence on foreign manpower, aid, and material goods.

The purpose of this study, therefore, was to illuminate the major factors and events that have controlled and inhibited the development of higher education in Ghana from 1948 to 1984.

The method of acquiring data involved a computer and manual search for documents from 1) ERIC Database, 2) libraries, and 3) Embassy of Ghana, Washington, D.C.

The findings include (1) Establishment of universities on the basis of the Asquith Doctrine; (2) Imitation of British universities’ curriculum, constitution, standards and social functions; (3) Characterization of universities by elitism, lack of diversity and adaptation, autonomy,
excellence and narrow specialization in their honor degree programs; (4) Emphasis on cognitive rather than psychomotor learning; (5) Matriculation of inadequately qualified secondary school science students; (6) Absence of a nationally formulated statement of manpower needs, goals, and effective long-term planning; (7) Financial exigencies; (8) Suppression, perversion and abuse of academic and intellectual freedom by the government and universities; (9) Inconsistent governmental policies due to abrupt changes in government by military coups.

The major conclusion was that inadequate controls over the scope, quality, content and purpose of higher education resulted in unanticipated and unplanned consequences: unemployment, lack of qualified manpower and weak economy.

The major recommendations include (1) Relating curriculum to culture and needs of Ghanaians; (2) Emancipating students and teachers toward certain hard and low prestige courses vital to economic and national progress; (3) Pragmatizing education and emphasizing science in secondary schools; (4) Widening of subject structure of honor degree programs; (5) Forming a national educational and scientific research policy; (6) NCHE headed by higher education expert and not just a politician; (7) Dismantling governmental controls over academic and intellectual freedom; (8) Government to respond to problems of Ghana that lead to political upheaval.
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CHAPTER I

INTRODUCTION

The history of education shows that higher education has existed since time immemorial. In England, for example, Oxford and Cambridge Universities flourished hundreds of years before the British had any sound system of secondary schools (5, p. 15).

In Ghana, the "secret cults," in which occult knowledge of power—real or imaginary—African philosophy, science, and religion were mastered, once served as institutions of higher education. However, as a result of contacts with European merchants and Christian missionaries in the mid-Fifteenth Century, this informal means of higher education was displaced by the formal European system.

Upon their arrival, the missionaries established primary, middle, and secondary schools throughout the country and by the beginning of the twentieth century, they were responsible for education in Ghana. During the first decades of this century, there were no universities in West Africa, so the colleges and "higher colleges," which were secondary schools, for the most part, served as institutions of higher education (30, p. 6). Examples are the Fourah Bay College in Sierra Leone, founded in 1827 to train ministers, farmers,
and teachers (13, p. 27) and the Achimota College near Accra established in 1923 to instruct students from the kindergarten to the university level.

In the absence of universities, Africans were obliged to travel outside their continent in order to obtain a university education, as reported by Hanson (31):

University study by West Africans has been for generations in full swing. African doctors, African churchmen have for sixty years and more, in small but increasing numbers, passed into and through the universities of Great Britain, Europe and America (31, p. 17).

However, as it became more difficult for Africans to travel overseas for higher education, and as thousands of students who, after finishing their primary course of study, could not continue their education due to the limited number of secondary schools, a demand arose for the establishment of higher educational institutions and universities in West Africa. This was spearheaded by some early nationalists who were either descendants of slaves or native Africans who had been educated in Europe. Although the West African demand for higher education was initially opposed by the British government, it eventually decided to establish university colleges in all of its colonies, including the Gold Coast—now Ghana.

Describing the type of higher education transplanted to Ghana, McWilliam notes, "all the educational levels,
including elementary, secondary and university, were carbon copies of British institutions" (44, p. 8). Also, according to Ashby, one characteristic commonly shared by all levels of education was "elitism and lack of diversity" (5). Not only were the colleges based on British traditions, but their curricula, standards, and constitutions were replicas of British civic universities at their best. Ashby correctly declares, "the modern universities of Africa have their roots not in any indigenous system of education but in a system brought from the West (5). This view is corroborated by Gross's statement in Africa Report: "the University of Dakar remains, eight years after independence, at least as French as it is African" (25, pp. 42-44). Similarly, Legum notes, "the agreement between France and Madagascar was designed to maintain the French inspiration as the historic instrument of its modern advancement and of its cultural, political, and social development" (41, p. 6).

Although the exact origins of these universities that were exported to Africa are not known and probably will never be, it is believed that they began (1) with the great revival of learning in Europe in the twelfth century, (2) partly through the scholars of Sicily, (3) through the Arab scholars of Spain who studied the works of Aristotle, Euclid, Ptolemy, the new arithmetic, and texts of Roman law which had lain hidden during the Dark Ages (32, p. 4). The
exportation is also believed to have sprung from the learning and scholarly work carried out in three types of institutions in England: monasteries, where scholarly commentary on the scriptures and other learned works was already being produced (2, p. 1819); cathedral schools, which exposed pupils of all ages to a wide field of studies; and informal complexes for study that arose around individual teachers to whom students flocked (18). Other ancient centers of learning included Egypt and the University of Sankore at Timbuctoo, in the present-day Republic of Mali, which for centuries trained doctors, lawyers, judges and other learned men (26) until it grew into a city by the twelfth century (18).

During the colonial period, university education in the Gold Coast was regarded as ancillary to the goals and purposes of the British (43). The curriculum reflected this bias and was formulated with little or no concern for the types of instruction appropriate to the developmental needs of the Gold Coast. University education generally assured the recipient high status, a government job, and a secure income.

In 1951, however, six years before Ghana gained its independence, when a measure of internal self-rule had been achieved, the Colony's first African government, headed by Kwame Nkrumah, embarked on a massive program of educational
expansion and change (50). After independence, many changes were effected in the higher education curriculum to align university purposes to the country's development realities (43, pp. 91-96). Unfortunately, the Nkrumah government was not able to carry out its seven-year development plan for education before it was ousted by a military coup in 1966. Subsequently, higher education suffered from inconsistencies created by the policies of the successive military governments, policies which served to undermine the very foundation of the nation's educational structure as, in their attempts to deal with Ghana's inherited financial difficulties, the military governments held down higher education expenditures and slowed the physical development of universities.

As noted by Fafunwa and Aisiku (20), universities in many industrialized countries, including Japan, Australia, Canada and India have enabled those countries to achieve rapid economic and social advancement by playing a leadership role in both the development and application of growth. However, Fafunwa and Aisiku do not believe that this is true for universities in Africa. According to them African universities are unable to develop adequate numbers, and quality of technological scientific professionals or management and research personnel to (1) undertake feasibility studies, (2) evaluate development projects, (3) determine
what projects would best further the country's development, (4) formulate viable development programs, (5) manage and supervise the implementation of projects, and (6) transfer scientific and technical knowledge to business and enterprises to improve the economy of the country and raise the national income. Thus, bringing the economy to a halt and keeping the country continually dependent on foreign manpower, aid, and material goods. Harbison argues,

The wealth of a country is dependent upon more than its natural resources and material capital; it is determined in a significant degree by the knowledge, skills, and motivation of its people . . . Thus, investment in man and his development is fully as important as material investment in dams, roads, harbours, irrigation systems, factories or communication. Therefore, it is reasonable to conclude that the wealth of a nation is at least as dependent upon the development of human resources as upon the accumulation of physical capital (33, p. 71).

In an article entitled "Education and Policy in Ghana", Finlay (21) states, "No education system can be considered apart from the influences behind its creation nor more importantly, apart from the policy in which it develops and performs and for which it has consequences" (21, p. 19). Therefore, this study is concerned with illuminating the factors and events that have controlled and inhibited the development of higher education in Ghana from 1948 through 1984, a time comprising the Gold Coast's final colonial years, to Ghana's gaining of independence, and two decades of growth before the country's most recent period of turmoil.
Beginning with a brief account of traditional education in Ghana prior to the establishment of formal educational institutions, the study summarizes a number of major historical and contemporary developments of higher education in Ghana.

It should be noted that Ghana 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 true measure of internal self-government in 1957. It 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, as indicated on the map of Africa in Appendix A. The country has long been considered the leader in middle Africa in the field of education as well since innovations in Ghana have often been followed by similar developments in other African countries.

Statement of the Problem

The problem of this study is concerned with the factors and events that affected the establishment and development of higher education in Ghana during the period 1948-1984.

Purposes of the Study

The overall purpose of this study is to illuminate the factors and events that have controlled and shaped higher
education in Ghana from 1948 to 1984. Specifically, the purposes of the study are as follows:

1. To identify the major factors and events that affected the establishment of higher education in Ghana,

2. To review the programs of study and analyze the student enrollment and output patterns of Ghana's three universities during their development stages from 1948-1984,

3. To describe the organizational structure and administrative practices and procedures in the financing and planning of higher educational institutions during the period 1948-1984, and

4. To review the role played by successive Ghanaian governments in the development of higher education during the period 1948-1984.

Research Questions

Based upon the statement of the problem and the purposes of the study, the following questions guided this research:

1. What were the major factors and events that affected the establishment of higher education in Ghana?

2. What were the programs of study, student enrollment, and output patterns of each of Ghana's universities during the period 1948-1984?
3. What were the patterns of organizational structure of the institutions of higher education in Ghana, and what were the administrative practices and procedures used, in the financing and planning of these institutions?

4. What was the role of successive Ghanaian governments in the development of higher education during the period 1948-1984?

Background of the Study

Long before the establishment of formal education in Ghana by the missionaries and colonial masters, education in the country was basically informal (20, p. 9). Fafunwa and Aisiku comment,

Every society, whether simple or complex, has its own system for training and educating its youth for good life. However, the goal of education and the method of approach differ from place to place, nation to nation, and people to people. For example, the Greeks considered an educated person as one who was mentally and physically well balanced. The Romans also emphasized oratorical and military training, while the African considered the warrior, the hunter, the nobleman, and the man who combined good character with a special skill as well-educated and well-integrated citizen of his community (20, p. 5).

According to Fafunwa and Aisiku, traditional or indigenous African education was basically used to accomplish children's immediate induction into society and their
preparation for adulthood. This education emphasized social responsibility, job orientation, political participation, and spiritual and moral values. Children learned by doing and were involved in participatory education through ceremonies, rituals, imitation, recitation, and demonstration. They were also engaged in such activities as practical farming, fishing, cooking, weaving, and knitting. They learned recreational subjects like wrestling, dancing, drumming, acrobatic display, and racing; and the study of history, legends, environment (i.e., local geography, plants, and animals), poetry, reasoning riddles, proverbs, story-telling, and story-relays constituted their intellectual training (20, p. 10). The curriculum was integrated because it combined physical training with character building and manual activity with intellectual training. At the end of each year, a practical test relevant to the child's experience was continuously administered. This culminated in a "passing out" ceremony or initiation into adulthood. Beyond the childhood experiences was the secret cult which served as an institution of further or "higher" education for those initiated into adulthood (29). "It was at this level that the secret of power, real or imaginary, profound African philosophy, science and religion were mastered" (20, p. 10).
Although, as indicated by Fafunwa and Aisiku, "the curriculum of the informal system of indigenous African education was functional and relevant to the needs of the society, it was gradually displaced by an alien form of education as a result of Ghana's contact with Europe (20, p. 10). Ghana's contact with Europe was initiated by Portuguese navigators who were seeking gold, ivory, and spices along the coast of the land that became modern-day Ghana in the second half of the fifteenth century. Eventually the traffic in gold became so profitable that other European traders, including the Dutch, English, French, Danes, Swedes, and Germans, also entered the field. Due to the abundance of the gold deposit in the district between the Ankobra and Volta Rivers, the Portuguese named the country "Mina," meaning mine, while the French called it "Côte de l'or," meaning Gold Coast. This name was later adopted by the British, who applied it to the whole country (22).

In 1872, all of the Europeans, with the exception of the British, left the Gold Coast. The British then formed an alliance with the natives of the coastal areas and converted the southern region of the country into a British crown colony (22). The British subsequently initiated a series of wars with the rest of the country, which resulted in the final defeat and annexation of the Ashanti Empire.
in 1901. The British took over the country and introduced an administrative system which strengthened their position and made the Gold Coast a colony of the British Empire in 1919 (17).

Following their arrival, the Europeans established schools in castles exclusively for the children of European traders and their African wives (44, p. 8). These castle schools were later followed by mission schools established by religious societies, such as the Presbyterian Basel Mission, the Methodist Wesleyan Mission, and the Evangelical Presbyterian Bremen Mission (44, p. 1). As Smith observes,

> European contact with the Gold Coast brought things good as well as things evil. But among the good things that it brought, we have to thank the Christian missionaries for the best, that is, the schools (44, p. 20).

However, according to Groves, the missionaries established schools not to spread literacy or to train their pupils to earn a living but, rather, because they thought that schools were one of the best means of spreading the Christian faith (26). The missionaries quickly and eagerly developed a strategy to preach against the African culture and its traditions, based upon the injunction of St. Paul: "What agreement has a believer in common with an unbeliever? What agreement has the temple of God with idols? . . . Therefore, come out from them, and be separated from them says the Lord" (44, p. 24). The missionaries discouraged
the practice of African culture, and African music, art, dancing, religion, and other social activities were banned from the school curriculum because they were regarded as evil. In addition, missionaries considered traditional forms of training for citizenship like *Dipo*, a puberty rite performed among the Krobo tribe, to be the work of Satan (40), and instead they offered their students a kind of character training that produced citizens of high quality to serve the country. Gradually, the missionaries achieved their objectives by creating "two worlds," training children to be citizens of minority Christian communities rather than of the society as a whole and separating literate individuals from the rest of the population.

According to Asiedu-Akrofi, by 1900, most of the schools in the Gold Coast were under the control and sponsorship of the missionaries (6, p. 98). However, between 1919 and 1927, during the governorship of Sir Gordon Guggisberg, the state and the church became partners for the first time in supporting the colony's schools (39). To ensure the orderly development of the country, the government assisted the mission schools by giving them grants-in-aid. There were four kinds of schools under this system: 1) government, 2) assisted, 3) mission, and 4) private.
Table I illustrates the Christian missions' impressive contribution to education in Ghana, as well as an insignificant contribution from the Islamic religion in the 1920s. Gradually, the development of education came under the control of the British colonial authorities, but the government continued to encourage voluntary assistance from the missionaries at the primary and secondary levels.

**TABLE I**

GOVERNMENT AND ASSISTED SCHOOLS IN GHANA, 1925-1927*

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<td>AME Zion</td>
<td>7</td>
<td>7</td>
<td>7</td>
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<tr>
<td>English Church</td>
<td>6</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Evangelical Presbyterian</td>
<td>22</td>
<td>31</td>
<td>36</td>
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<tr>
<td>Roman Catholic Mission</td>
<td>29</td>
<td>29</td>
<td>32</td>
</tr>
<tr>
<td>Presbyterian Mission</td>
<td>98</td>
<td>96</td>
<td>99</td>
</tr>
<tr>
<td>Wesleyan Mission</td>
<td>47</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Undenominational</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Secondary</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Muslim</td>
<td>—</td>
<td>—</td>
<td>1</td>
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<tr>
<td><strong>Total Assisted Schools</strong></td>
<td><strong>212</strong></td>
<td><strong>221</strong></td>
<td><strong>234</strong></td>
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<tr>
<td><strong>Government Schools</strong></td>
<td><strong>17</strong></td>
<td><strong>17</strong></td>
<td><strong>18</strong></td>
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<td><strong>229</strong></td>
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In the 1930s, the rapid pace of educational development in the Gold Coast was slowed by the world economic slump. But, after World War II, the British Colonial Development
and Welfare Acts breathed new life into education, which resulted in an unprecedented expansion at all levels between 1945 and 1950. Asiedu-Akrofi writes,

... during and after the 1950s, the political activities in the country tended to transform the schools from being the center of Christian manpower development for purposes of political stability and redemption of African personality (6, p. 100).

In 1951, the first African government in Ghana established the Accelerated Development Plan for Education to provide education for all school-age children as expeditiously as possible (44, p. 84). Then, in 1961, the government instituted an Education Act that served as the basis for Ghana's present system of education. The act mandated free and compulsory education; the creation of local authorities responsible for buildings, equipment, and maintenance grants for primary schools; and the opening of admission to mission schools irrespective of students' religious background (6, p. 100; 44, p. 108).

According to Scanlon and others, after 1920 enrollment in the primary schools of the Gold Coast began to double and triple. Thousands of children were finishing primary school but then could not continue their education because of the limited number of secondary schools in the colony and the absence of colleges and universities (15). Therefore, as Boateng notes, "the desire for higher education which prevailed in Ghana and other African countries at that time led
many Africans, including Ghanaians, to seek higher education outside their colonized countries" (10, p. 5). During this period, many Africans—including James Africanus Beal Horton, a Creole from Sierra Leone; Edward Blyden, also from Sierra Leone; and J. E. Casely Hayford from the Gold Coast—appealed to the colonial government to establish higher education in Africa. Horton, who was a medical doctor, advocated for an institution to train African students in medicine before they went to hospitals in Britain (38); Blyden appealed for the establishment of a university that would restore cultural self-respect among Africans (9); and Hayford also appealed for an indigenous university. His proposal, published in his book, *Ethiopia Unbound*, emphasized that

> An African university must be no 'mere foreign imitation.' Teaching must be in the vernacular. Scholars must be employed to translate books into Fanti. The university must be a centre of 'national conservancy and evolution,' yet, linked to other universities overseas; not to one alone (for this would overemphasize the influence of one country in the Gold Coast) but 'in working correspondence with some of the best teaching institutions in Japan, England, Germany and America' (34, pp. 202-08).

Hayford's campaign for a university reached its climax in 1920, at the First Conference of Africans of British West Africa in Accra. In a memorial address to King George V, Hayford stated, "the time had come to found a British West pa African University on such lines as would preserve in the students a sense of African Nationality" (34, p. 24).
However, despite continuous agitation from these and other advocates of indigenous higher education, the British government refused to establish universities in Ghana because "the colonial officials were not enthusiastic about coping with multitudes of African graduates who might cause them difficulties and eventually claim their jobs" (5, p. 18). Boateng also enumerates some of the British government's motives for rejecting the establishment of higher education in Ghana. He believes that the British wanted to secure their imperial power of control through the colonial structure of administration under indirect rule (10, p. 4). Under this policy of indirect rule, British institutions and officials were at the top of the administrative hierarchy. Immediately below them were the indigenous African institutions and chiefs who received directives from the British officials and implemented them at lower levels by employing the skills of literate--but only half-educated--Ghanaians. In order to maintain this hierarchy the British had to restrict higher education since they needed Ghanaians with only a modicum of skills to qualify for routine jobs as clerks or bookkeepers in the colonial administration of commercial firms.

After World War II, the situation gradually began to change (47) as the Gold Coast graduates from western institutions overseas and veterans began to demand a greater
voice in the colonial government. This prompted the British authorities to accept the idea of the colonials moving towards national independence and to acknowledge the need for highly qualified skilled manpower (2, p. 87). Consequently, in July of 1943, the government appointed a commission, under the chairmanship of Cyril Asquith, to "investigate at large into higher education in the British colonies" (52). The Asquith Commission recommended that the British government found several university colleges in association with the University of London (52). As noted by Brown (12, p. 4), this recommendation also resulted in the formation of separate commissions in each of the regions in which the colleges were to be established. One of these was the West African Commission, which was later named after its chairman, the Right Honorable Walter Elliot. The Elliot Commission published a majority report recommending the establishment of two university colleges in British West Africa, one in Ghana and one in Nigeria, but a minority report was also published which stated that the establishment of only one university college for the whole of British West Africa was possible (53).

Initially, the British government accepted the minority report and decided to establish only one university college in West Africa at Ibadan in Nigeria (53). This plan was opposed by the people of the Gold Coast, and, with the help
of the scholar and politician, Dr. J. S. Danquah, they were able to convince the British authorities of their ability to support a university college of their own. Consequently, the British government reconsidered its decision and, by government ordinance, the University College of the Gold Coast was established on August 11, 1948 (19).

The primary purpose of this college was to produce an elite who could meet the standards for public service and had the capacity for leadership that was needed for self-rule after the departure of the colonial government (5, p. 20). The British government used the report of the Asquith Commission as a "blueprint" in establishing the two West African university colleges. Eventually, the Asquith Doctrine, as the report was later known, became hardened into a dogma, resistant to change and criticism, and operated on an erroneous assumption that "a university system appropriate for Europeans brought up in London, Manchester, and Hull was also appropriate for Africans brought up in Lagos, Kumasi and Kampala" (5, p. 19). Evidently, the inappropriateness of the British system of higher education for the African setting was overlooked when the universities were founded (8).

In his book entitled *African Universities and Western Tradition*, Eric Ashby describes the nature of the higher education that was exported from Britain to the Gold Coast
and other West African countries (5, p. 19). The African university colleges were patterned after British universities in their constitution, standards, curriculum, and social purpose. In order for these colleges to maintain high academic standards and achieve international recognition (44, p. 78), the Asquith Commission recommended that help be sought from two British institutions, namely, the Inter-University Council for Higher Education of the United Kingdom and the University of London, which controlled the University College of the Gold Coast for the first thirteen years of its existence. First, the Inter-University Council dealt with policy-making, advised university colleges on all matters relating to higher education in the British colonies, and approved academic appointments that would aid the colleges in maintaining the high academic standards of universities in Britain while helping college officials to gain grants from Britain. Second, the University of London set up a system called "special relationship" with the colonial universities. In this relationship, the newly formed colleges in the Gold Coast, Nigeria, and Sudan were allowed to adapt syllabi to local needs and to offer courses in line with the external degree examinations of the University of London, without lowering the value of the degrees it awarded.
After the Gold Coast gained its independence on March 6, 1957, it was renamed Ghana after one of the ancient Sudanic empires which flourished between the Fourth and Tenth Centuries (22). Hence, the University College of the Gold Coast became the University College of Ghana. Between 1960 and 1961, the institution's council asked the government of Ghana to enact legislation to convert the College into a full-fledged university with the power to award its own degrees. In response to this request, the government appointed a commission to examine the situation and make recommendations. Subsequently, the University of Ghana was established by an Act of Parliament on October 1, 1961, with Connor Cruise O'Brien as its first vice-chancellor and Dr. Kwame Nkrumah, then president of the republic, as the first chancellor of the university (12, p. 3). Later, more higher education institutions, the University of Science and Technology in Kumasi and the University of Cape Coast, were established in Ghana on the same basis as the University College of the Gold Coast, using the University of Ghana as their parent university (51).

As noted by Brown in his article (12, pp. 3-6), the University of Science and Technology in Kumasi originated from the Kumasi College of Technology, which came into existence on January 22, 1952, as a result of the Government Ordinance of October 6, 1951. The college opened its doors
with 200 students who were transferred from Achimota College in Ghana. It was established with the aim of building a purely scientific and technological institution. Its accession to university status began in December, 1960, when the Government of Ghana appointed a University Commission to advise it "on the future development of university education in Ghana in connection with a proposal to transform the University College of Ghana and the Kumasi College of Technology into an independent University of Ghana" (48, p. 15). After receiving the commission's report, the government decided to establish two independent universities, one at Legon and the other at Kumasi. Thus, the Kumasi College of Technology became a university by an Act of Parliament on August 22, 1961, with the designation as Kwame Nkrumah University of Science and Technology. It was officially inaugurated on November 19, 1961 and began to award its own degrees in June 1964. However, in 1966, after Nkrumah was overthrown as President of Ghana by the military on February 24, 1966, his name was accordingly deleted and the institution was renamed the University of Science and Technology (14, p. 1339).

The University of Cape Coast is the youngest of Ghana's three universities. It originated from the University College of Cape Coast, which was established through the recommendations of the Commission on University Education
appointed by the Ghanaian government (48). The college began operating in October 1962, in a "special relationship" with the University of Ghana. Subsequently, the college was formally inaugurated on December 15, 1962, under the name of the University College of Cape Coast and so became the third higher education institution in Ghana. Its main purpose was to "produce teachers in arts and science subjects for secondary schools, teacher training colleges, polytechniques, and technical institutions in Ghana" (12, p. 5).

Between 1969 and 1970, the council of the college asked the government of Ghana to enact legislation to upgrade the institution to a university with the authority to award its own degrees, including honorary degrees, diplomas, certificates, and other academic distinctions. Subsequently, the University College of Cape Coast became a full university with the designation of the University of Cape Coast by an act of Parliament on October 1, 1971.

With regard to the development of higher education in Ghana, Barkan has concluded that,

... despite the rapid growth of African educational systems since independence, the methods of instruction and the values they communicate are basically the same as those which evolved during the colonial era ... most African university students have thus, been trained to assume technocratic roles in an administrative state similar to that which existed in their countries prior to independence ... they are being taught to adjust their values to western norms to a point where they regard it as legitimate (7, p. 30).
Not only are the universities of Ghana and other African nations unable to create their own identity and academic traditions distinct from those of educational institutions in the land of their former colonial masters, but they are usually removed both physically and spiritually from the society that surrounds them and train their students to be physically and spiritually removed from the realities of their countries' particular situation. This statement was confirmed in the memorandum of the United Nations Economic Commission for Africa in 1966, which is valid today as it was twenty years ago (46). According to the memorandum, some of the problems associated with social and economic development and the production of skilled manpower are the result of deficiencies in the African educational system, as described by Fafunwa and Aisiku below (20).

1. Little has been done by African universities to develop technological research personnel who could transfer scientific and technical knowledge to business enterprises in order to strengthen the economy of the country and increase the national income.

2. The rate of development is hampered by lack of sufficient numbers and quality of technical, scientific, professional, and managerial personnel to undertake feasibility studies, evaluate development projects, determine what projects would best further the country's development,
formulate viable development programs and manage and supervise the implementation of projects. These inadequacies make Africa dependent on expatriates for even modest activities in important sectors.

3. The educational system was not devised to meet the challenge of rapid transition from a traditional economy to an industrial one. Furthermore, both the objectives and the course content of instructional programs are lacking in those elements that most rapidly foster innovation and economic growth, and patterns of departmental and subject structure, educational type, and relative expenditures by levels have not changed for more than two decades (28).

4. The educational system, especially the universities, suffers from inadequacies and gaps in course content and objectives, from under-utilized available resources, and from insufficient cooperation in human resource development efforts to supply the trained manpower with varied occupational skills needed for economic modernization.

5. The curriculum tends to be conventional in outlook and largely satisfied with conditions and facilities that cannot meet the challenge of rapid economic development and the application of modern technology. Specialized training courses in professional and technological fields are generally either absent or inadequately developed. In terms
of student enrollment, liberal arts and the humanities predominate while insufficient numbers are enrolled in agriculture, scientific, engineering, and technological fields, where acute shortages of trained indigenous personnel are known to exist. Although the natural sciences have received some attention, courses in this area lack emphasis on applied science and technology and their laboratory work is too divorced from the needs of local agriculture and industry.

6. A comparison of the departmental and subject structure of African universities with those of rapidly developing countries such as India, Australia, Canada, and Japan shows that a majority of African institutions of higher education are not fully aware of the necessity to provide training courses in newer subjects designed to equip indigenous personnel with new techniques for solving development problems, particularly problems peculiar to local socioeconomic conditions.

7. There are substantial under-utilized resources in the form of faculty, staff, and facilities that could be used to solve Africa's manpower problems by providing diploma, vacation, and correspondence courses tailored to the special needs of indigenous personnel required in specific fields of development.
Likewise, Ashby's study of African universities revealed a similar situation existing in the curriculum of these institutions. Ashby notes that the Asquith policy for establishing colonial university colleges, including the one in Ghana, emphasized Christian religious knowledge, Latin, Greek, ancient history, pure science, theoretical teaching, and fundamental research while applied science and technology, which were urgently needed for the national development, were ignored and placed in institutions below university status (5, p. 57).

According to Barkan, most of these universities have become conservative and, therefore, tend to produce conservative men and women (7, p. 18). Their curricula do not give students the opportunity to question the assumptions on which their education is based. Students' academic progress is completely dependent on their ability to pass a series of standardized examinations at the end of their course, and their performance on those examinations is inextricably linked to their future livelihood. The educational system assigned little importance to creative scholarship in the form of classroom performance and research papers, nor did it train students to question the theory behind certain phenomena instead of merely accepting them (10, p. 14). This system enhanced the conservatism of students since they had little need to search for new answers or raise new
questions about the problems which confronted them. Above all, the students were assured of a job before they left the university. Such was the practice observed by Van Til in one of the major Puerto Rican schools he visited during the New York University survey of education in Puerto Rico; he commented,

The villagers were very poor and afflicted with the problems that go with poverty . . . poor nutrition, inefficient agriculture, dilapidated housing, bad health, and the rest. Yet, what were the young people studying in the secondary school in this little mountain valley? In a social science class, they were memorizing lists of products of South American countries. Their mathematics work had no relationship to the problems they might encounter in the school, shop, home or elsewhere. In English class, students were reading eighteenth and nineteenth century novels which had no relevance to the problems encountered by that very society (56, p. 26).

According to Fafunwa and Aisiku, knowledge or training can be acquired in three major ways:

1. A formal school system, which includes nursery, primary, middle, secondary and post-secondary or higher education;

2. A non-formal system, which involves apprenticeship, and on-the-job-training where learning is accomplished by doing; and

3. An informal system, which includes various experiences and exposures otherwise known as incidental education (20).
Yet, most developing countries—and Ghana is no exception—place undue emphasis on formal education, which has resulted in a "craze" for paper qualifications such as diplomas, certificates and university degrees of all types. Consequently, only persons with recognized certificates are employed, while others who are well-trained or partially trained, such as roadside mechanics, masons, and fitters, are rejected. Although many of these untrained and non-certified individuals are as good as or in some cases better than their well-schooled counterparts, both in ability and productivity, this sizeable sector of the economy is not only ignored but snubbed. Worst of all, excellence in fields requiring manual labor such as plumbing or carpentry is discounted while a poor degree or diploma in agriculture, business, classics, education, engineering, law, medicine, music, or social sciences is exalted, glorified, and over-priced (20, pp. 255-256). This frequently makes educated persons a liability, not only in their unproductiveness, but also in their demand for places that they do not merit (16).

In his analysis of economic development and the effect of British higher education on the British colonies, Barkan reached some remarkable conclusions. Most of the students he surveyed cited a lack of entrepreneurial activities and agricultural development in their countries. However, when asked what they planned to do after graduation, most
students indicated that, because of fear of risks, they would avoid areas like agriculture and high-level entrepreneurial positions and instead seek simple but secure government jobs (7, p. 103). Barkan discovered only a few students who intended to pursue careers in the sectors that were considered most critical to the developmental process in their societies (7, p. 103). Boateng regards universities like those in the former British colonies of Africa, as "pillars of neocolonialism," because they continue to contribute to the eternalization of neocolonialism by producing students who refuse to be creative (10, p. 13) and perpetuate intellectual dependency (42, p. 468).

To enable students to be creative and also relate the university curriculum to the needs of Ghana, when Nkrumah became Chancellor of the University of Ghana, he tried to introduce African studies and other elements of African culture into the curriculum. His efforts, however, were strongly opposed by the expatriate professors who were in charge of decision- and policy-making at the university and by some African intellectuals, especially those educated in Britain, who, according to Ashby,

resist changes in curriculum or in pattern of courses because they confuse such changes with lowering of standards. They are accordingly suspicious of any divergence from the British pattern. Some of them are particularly allergic to proposals for incorporating African studies into the curriculum. In this, they say, the first step toward disarming us intellectually; to substitute Arabic and African languages for the
classics; to teach English to Africans as Chinese is taught to Englishmen, not as Englishmen learn English at Cambridge; to neglect Tudor history in favor of the history of Africa; to regard oral traditions as legitimate material for scholarship; to take seriously the political institutions of a Yoruba town, to reflect on the indigenous ethical systems of animists and Moslems as well as on Christian ethics? (5, pp. 61-62).

There are, of course, sound reasons for caution since it is more difficult to teach African studies than European studies at the university level for the simple reason that the subject is not codified, documents are incomplete, and there are no written textbooks. However, these are not excuses for a university to shy away from its responsibility to meet the needs of the society it serves. Hence, it is imperative for Ghana's institutions of higher education to be sensitive and responsive to the needs and aspirations of the Ghanaian society if the morale and socioeconomic conditions of the people are to improve (1; 58).

Significance of the Study

Since history tends to repeat itself, its study can prevent mistakes and help to point new directions for higher education in Ghana. With reference to the multiple problems that have been encountered in Ghanaian higher education, little can be done to improve the system and make it more responsive to the needs of the Ghanaian society without a basis of insight into the system's origin and the factors
controlling it. The need for this insight constitutes the necessity for this study.

According to Borg and Gall, historical research in education is important because its findings enable educators to "learn from past mistakes and discoveries, perceive needs for educational reform, and to a certain extent, to predict future trends" (11, p. 372). Just like other types of research, historical research is conducted according to a specific methodology and with concern for validity and reliability of data (11; 35).

A review of related literature concerning the history and development of higher education in Ghana shows that only scattered documents are available on the topic, so a comprehensive study such as this one will be more than welcome. Not only will it provide extensive and accurate information on the historical development of higher education in Ghana to the educational administrators, faculty members and students of the country's three universities, members of the National Council for Higher Education, and to all other persons interested in higher education; it will also highlight the major educational problems that Ghana still faces. Borg and Gall write, "by studying the past, the educational historian hopes to achieve better understanding of present institutions, practices and problems in education (11, p. 373). It is assumed that, as an understanding of
these problems becomes widespread, popular participation in their discussion and ultimate solution will soon follow.

Delimitations of the Study

This study was concerned only with the historical investigation of higher education in the three universities of Ghana—the University of Ghana at Legon, the University of Science and Technology in Kumasi, and the University of Cape Coast at Cape Coast—during the period 1948 to 1984. No attempt was made to extend the investigation beyond the four main research questions raised previously. Thus, questions on other aspects of the three institutions are beyond the scope of this study.

Definition of Terms

The following terms are defined as they relate to this study.

Documents—written or printed materials in varied forms, including diaries, memoirs, legal records, court testimony, newspapers, periodicals, business records, notebooks, yearbooks, diplomas, committee reports, memoranda, institutional files, and tests (11, p. 378).

Education—a process for transmitting culture in terms of continuity and growth and for disseminating knowledge to ensure social control, guarantee rational direction of the society, or both (20, p. 11).
General Certificate of Education (G.C.E.) or School Certificate—the secondary-school-leaving certificate and the basic requirement for higher education in Ghana. The examinations for this certificate, which are organized either by the West African Examination Council (WAEC), or Cambridge University, have two sections, the Ordinary and Advanced Levels. The Ordinary Level examination is normally taken after eight years of primary and five years of secondary education; the Advanced Level requires an additional two years of study in the sixth form after the Ordinary Level. To be accepted by an institution of higher education, students must obtain the numbers and combination of passes required by the branch of study in which they wish to enroll.

Higher education—all types of education of an institutional nature, including that provided in academic, professional, technological, and teacher training colleges whose basic admission requirement is the completion of secondary education (57, p. 60).

Intellectual dependency—a condition resulting from excessive reliance on an alien or a foreign reference group for ideas and analytical guidelines (42, p. 368).

Neocolonialism—a system in which an independent country in Africa finds itself culturally, intellectually,
and most importantly, economically dependent on the former colonial power (10, p. 13).

Ordinance—the name given to a law passed by colonial governments. In self-governing countries draft laws are known as bills; when they are passed and come into force they become acts (44).

Original sources—sources that give the earliest available information concerning the question under study because earlier sources have been lost (11, pp. 368-387).

Primary sources—documents in which the individual describing an event was present when it occurred (11, p. 179).

Secondary sources—documents in which the individual describing an event was not present when it occurred but obtained a description of it from someone else, who may or may not have directly observed the event (11, p. 379).

Primary sources may or may not be original, and original sources may or may not be primary. In some instances, a secondary source may be the earliest information available, so, by definition, it becomes an original source. Consideration is given to the credibility of the particulars, using whatever sources are available and have been proved genuine (23, p. 86).

Special relationship—a permit offered by well-established universities to newly founded university
colleges or other institutions of higher education in the commonwealth countries. In this relationship the college offers courses in line with the external degree examination of the university, without lowering the value of the degree awarded. The special relationship is ended, however, after the university college matures and becomes a full-fledged university with charters to grant its own degrees, diplomas, certificates, honorary degrees and other academic distinctions.

Methodology and Procedure for Collection of Data

The method of acquiring data involved a computer search of the Educational Resource Information Center (ERIC) using the following descriptors: Education, Adult Education, Educational Administration, Higher Education, International Education, College Administration, Africa, West Africa, History, Ghana, Ghanaian, and Universities. This search revealed the following documents.


A careful manual search of Dissertation Abstracts International, which was checked to avoid duplication of sources, uncovered twelve unpublished studies.


In addition, the twenty-three periodicals listed below were located in various indexes in the libraries of North Texas State University (NTSU) and Texas Woman's University (TWU) in Denton, the University of Texas at Dallas (UTD), the University of Texas at Arlington (UTA), Texas Christian University (TCU) in Fort Worth, and Southern Methodist University (SMU) in Dallas; the Dallas Public Library (DPL); and the Education Section of the Embassy of Ghana in Washington, D.C.; *African Studies Review; Daily Graphic; Evening News; Ghana News; The Ghanaian Times; History of Education Quarterly; Journal of African History, Journal of African Society; Journal of Education; Journal of Educational Research; Journal of the Historical Society of Nigeria; Journal of Modern African Studies; Journal of Negro Education; Journal of Royal African Society; Journalism Quarterly; Research in Education; Sierra Leone Studies; Studies in History, Economics and Public Law; Transactions of Gold Coast and Togoland Historical Society; Universities Quarterly and West Africa Magazine.
Finally, books related to the topic of this study were found in the card catalogues of the libraries of the above-mentioned universities.

The study was designed to survey the historical and contemporary development of higher education in Ghana from 1948 to 1984. Hence, no experimental design was necessary. However, information from the review of the primary and secondary sources listed above was synthesized in order to establish facts and conclusions, concerning the past, present, and future development of higher education in Ghana.

General Organization of the Dissertation

The dissertation is organized into chapters based on the previously stated research questions. Chapter I introduces the study, states the problem, outlines the purposes of the study, lists the research questions to which answers are sought, describes the background and significance of the study, indicates the delimitation of the study, defines the special terms used in the study, and describes the methodology employed to collect data. Chapters II to V present information related to the four research questions in Chapter I. Finally, Chapter VI offers a general summary and a reflection upon salient conclusions pertaining to the development of higher education in Ghana.
CHAPTER BIBLIOGRAPHY


45. Memorandum of the Case of the National Congress of British West Africa for a Memorial Based upon the Resolutions to be Presented to His Majesty the King Emperor in Council Through the Right Honorable, the Secretary of State for the Colonies, London, Her Majesty's Stationary Office, 1920.


CHAPTER II

THE ESTABLISHMENT OF HIGHER EDUCATION IN GHANA

As stated in Chapter I, the formal system of education came to be established in the land that became modern-day Ghana as a result of its contact with Europe in the middle of the Fifteenth Century. After the natives received primary and secondary education, however, nationalists who had been educated in the castle and mission schools as well as in Europe wanted to pursue their studies further and began to demand higher education from the British. Eventually, higher education was established in their colony of the Gold Coast with the aim of equipping citizens with the necessary skills needed for manpower development and the leadership skills required for self-rule.

To facilitate an understanding of the procedures, events and factors that contributed to the establishment of higher education in Ghana, this chapter surveys the following topics:

1. Important factors and events that led to the earliest direct contact between West Africa and Europe;

2. The introduction of Western education to Africa by the castle and mission schools;
3. Nationalism and the demand for higher education; and

4. The transplantation of British universities in Ghana (University of Ghana, University of Science and Technology, University of Cape Coast).

The Earliest Contacts Between West Africa and Europe

Wilks notes that, although the production of gold was increasing in Europe in the Fourteenth Century, especially in Hungary, gold merchants were unable to meet the demands of consumers, partially because of the minting of new coinages and also due to loss of the metal through overland trade with the East. As a result, merchants looked to Africa to increase the gold supply. Their demands were first met at north African ports and later through the entrepots of the western Sudan (85, p. 337).

Eventually, between 1434 and 1482, the first Europeans, the Portuguese, under the leadership of Prince Henry the Navigator, explored the whole of the West African coastline. Among Prince Henry's aims for the exploration, according to Groves, were

1. To discover previously unknown lands;

2. To conduct direct trade with West Africa instead of going through North African Moslem middlemen;
3. To discover and create Christian allies with whom the Portuguese could resist the onslaught of the Moslems, who for the greater part of the two centuries had endeavored to conquer and occupy the Iberian peninsula (35, p. 152).

After a few years of discovering the mina, as gold was called by the Portuguese, they built a fort at Elimina in the Gold Coast in 1482—before Columbus sailed to America or Vasco de Gama to the Indian Ocean (70)—to provide a strong foothold from which the Europeans not only prosecuted trade but eventually colonized and dominated the hinterland, and to establish schools and disseminate Western ideas. The castle schools provided the foundation for forces which eventually overthrew foreign domination and created a demand for universities in West Africa (61, p. 8). The earliest of these schools was founded at Elimina in 1644, followed by another at Christiansborg in 1722.

Before the Sixteenth Century, as a result of the monopoly conferred by the pope's authority in a papal bull, Portugal remained the only European country in West Africa. Okafor states, however, that Portuguese dominance was undermined during the Sixteenth Century by the Protestant countries of Northern Europe, which had no allegiance to the pope and so could not be stopped indefinitely (61). Consequently, other Europeans, including the Dutch and the English, and later the Danes, Germans, and the French
entered the gold trade. In 1618, the English founded Fort James on the Gambia River, while the Dutch, after increasing their trading settlements, seized Elimina Castle from the Portuguese in 1637. By the end of the Seventeenth Century the center of political gravity in Europe had shifted from the south to the northwest, in the nations of England, Holland, and France. It is interesting to note that during this time the Portuguese, who once claimed the whole of the West African coast, were restricted, as they virtually are today, to Angola and Mozambique (58).

The first English voyage to West Africa was made under the command of Thomas Wyndham in 1553. Although Wyndham died during the voyage, it was a commercial success, and this stimulated a second voyage under John Lake in 1554. Thirty years elapsed before the third and fourth voyages were made; on the latter of these two trips the expedition returned with pepper, elephant tusks, and palm oil.

It has often been stated that religion, including the philanthropy it inspired, and trade were the most impelling factors in the relationship between Europe and West Africa. However, according to Dike (25, p. 1), commerce forged the fundamental relationship that bound Europe to Africa. This view is supported by Morel, a British historian who does not believe the purpose of the British presence in the Gold
Coast prior to 1800 was to christianize the Africans. Morel declares,

It was commerce alone that sent the British and other European countries to the West Coast of Africa. Commerce was the "fons and origo" of our presence there. As a nation, we should gain much and lose nothing in frankly admitting to ourselves that our presence in West Africa was due neither to a desire to mend the ways of priestly theocracies, nor to alter the tyranny of the strong over the weak . . . but the belief that West Africa constituted a vast outlet for the free and unfettered development of British trade, and an equally vast field for the cultivation of products of economic necessity to ourselves (57, p. 22).

The history of the early contact between Europe and West Africa, according to Graham, is basically a description of the trading activities between the two continents that lasted for approximately three hundred years (33). During this time, the Gold Coast trafficked with the Normans, Portuguese, Spaniards, French, Germans, Dutch, and British. Its main items of export were palm oil, ivory, guinea pepper, guinea grains, camwood, ebony, rubber, beeswax, gum copal, hides, and gold dust and fellow Africans. In return the Gold Coast received rum, guns, gunpowder, and brightly colored clothes from the Europeans (9, p. 112).

Another important factor that played a great part in the contact between Europe and West Africa was the slave trade. Although the slave trade has been described as one of the greatest crimes in the history of mankind (23), it provided a cause which led--directly or indirectly--to the political independence of Ghana as well as the eventual
establishment of higher education and universities within its borders (61).

Evans (28) states that the slave trade started in 1562 and reached its climax in the Eighteenth Century. It was established in response to the demand for workers on the plantations in the Americas, especially the West Indies. In 1807, the slave trade was abolished and declared illegal for British subjects along the coast of Africa. Initially, this created a social problem as many of the former slaves were homeless and destitute after being released by their masters. Granville Sharp, an opponent of slave trade, therefore, attempted to persuade the British government to accept responsibility for the displaced former slaves and give them free passage to Sierra Leone, where it was proposed that they would found the Province of Freedom, a free, self-governing African community. The British did not agree to this proposal, so Sharp undertook the project alone and helped the first settlers, 411 in number, to arrive at Sierra Leone on May 4, 1787. In 1791, as a result of the failure of the program due to heavy rains, a high death rate among the settlers, and the hostility of the land's original inhabitants, Sharp's endeavor failed and the Sierra Leone Company was established in London to take charge of it (31). Apart from its commercial intent, the company had philanthropic motives as well. In his History of Sierra Leone,
Fyfe mentions that soon after the arrival of the company's ship \textit{Lapwing} in January, 1791, a school was established in Sierra Leone to teach reading, writing, and accounting (31, p. 69).

Various religious organizations sponsored by Methodists, the Baptists, and others founded societies to aid the inhabitants of Sierra Leone. Among these was the London Mission Society, established in 1795, whose name was changed to the Church Mission Society to Africa and the East (CMSAE) in 1799 and, finally, to the Church Missionary Society (CMS) in 1813. In 1804, the CMS opened a mission in Sierra Leone and opened schools. After a series of misfortunes, the British government took over the Sierra Leone Company and provided assistance to the mission schools. Due to the difficulties in recruiting Europeans for its work in Sierra Leone, the CMS built a Christian Institute in 1915 to train children in useful trades such as farming, teaching and pastoring. The school was closed in 1826 but was revived in 1827 and transferred to Fourah Bay, east of Freetown. This institution played an important role in the development of higher education in Africa; it was not only the predecessor of Fourah Bay College, which became the first university in West Africa, but also the training ground for many Ghanaians and African missionaries (43).
European Merchants and Castle Schools

Ghana's first contact with Western education took place in the forts and castles built by European merchants in the early part of the Fifteenth Century (53). According to McWilliam, most of these castles housed schools from time to time, but only a few of them achieved permanence, since they were dependent on the personal interest of the officials and merchants concerned. As pointed out by Graham (33), the schools were established to educate the mulatto offspring of mixed marriages between European traders and their African wives. During this period, the children of European fathers had a stronger claim to be under European jurisdiction than did those of African parentage.

It is important to note that, due to the enervating climate of Africa and its attendant fevers, before the Twentieth Century it was common practice for Europeans to leave their wives and children at home and marry African women upon their arrival in the Gold Coast Colony. Wilson comments,

the number of white females was then very small, for they tended to suffer more from the climate than the man; and because they had less to engage their minds, they seldom became sufficiently interested in the country as to be willing to make it their home. It was not uncommon for European residents to form connections with native women of mixed blood, of whom there were many about the forts. In the course of time they found themselves surrounded with large families of mulatto children. Before a connection of that kind could be formed with a family pretending to respectability, the European bound himself to make provision
for the support of the consort (as the temporary wife was called) and the children; and in case he left the country, these engagements as a general rule, were scrupulously and honourably fulfilled (86, p. 153).

Similarly, there were a few Africans, including Philip Quaco, Jacobus Captein, and E. Andoh, who married European women and sent their children to castle schools. Such marriages contributed to establishing the following mulatto names that are still common in Ghana: Bartels, Brew, Butler, Gomez, Hanson, Hesse, Quist, Smith, and Swanzy (69, p. 4).

At Cape Coast a fund known as the "Mulatto Fund" was established to finance the education and welfare of mulatto children and their African mothers. The fund was made up of monthly contributions by all resident Europeans in proportion to their monthly salaries.

According to Okafor (61), although the castle schools produced a tradition of Western education in the Gold Coast, they did not provide a permanent foundation for West African education since they were sporadic. Thus, they are outside the general development of education in Ghana. British West African education, however, spread from Sierra Leone through returned slaves and their descendants. Archival records indicate that the exclusive teaching of mulatto children was not widespread because, although the castle school at Accra concentrated exclusively on teaching mulattos, the Cape Coast castle admitted both mulatto and African children. In 1740, for example, only eleven of the forty-five pupils in
the school operated by Captain Jacobus were mulattos (11, p. 85). Among the purposes of training mulatto children was to enable them to serve as soldiers at the fort and to work for the merchant company in any capacity (33).

The Portuguese

Although the influence of the Portuguese on the Gold Coast is seldom remembered today, according to Graham, theirs was one of the first European nations to make an impact upon the colony's economic and educational life. The first recorded Western type school was established at the Portuguese settlement in Elimina in 1482. The Portuguese fort was used primarily for commercial purpose, but in 1529 King John III decided to convert the natives to the Catholic faith. A teacher was, therefore, employed to teach reading, writing, and religion, using Portuguese as the medium of instruction, to African boys living in the village of Edina near the fort (53, p. 8).

The teacher was to be paid 240 grains of gold a year for each student he taught, up to a maximum of fifteen. Thus, his remuneration was constant if the student enrollment rose above the maximum but was correspondingly reduced if a child died or discontinued the course (87, pp. 14-17). Since there are no records concerning the number of pupils and teachers in this school or its development, it is assumed that only a handful of boys attended the school.
In 1572, upon the arrival of four Augustinian missionaries, a revival took place at Elimina (87, pp. 20-24), but the missionaries were killed a few years later following their successful attempt to open a mission station in the Efutu and Komenda areas. Despite this setback, however, Catholic education for mulatto children continued in the Elimina castle school until 1637, when the castle was seized by the Protestant Dutch (77, p. 170).

The Dutch

After driving the Portuguese out of Elimina, the Dutch West Indian Company reopened the castle school for the mulatto children in 1644. This action was taken in response to the Dutch charter of 1621, renewed in 1640, which instructed merchants to set up Christian schools in accordance with the Dutch Reformed Church wherever they traded (33). The purpose of the school was to help pupils advance in the Christian faith, to familiarize them with the Dutch authorities, and to enable them to speak the Dutch language (29).

Like the Portuguese and French efforts, the Dutch undertaking had no influence on Ghana's present educational system, but it was during this period that the practice of sending boys to Europe to be educated was established
53, p. 9). As indicated in the Report from the Committees of the House of Commons, this began to be done because

... a most important assistance would be afforded to the influence of the Colony (in this case Sierra Leone) on the neighboring nations by giving instruction in England to some African children who were either most promising in themselves or most important from their African connections. It was also felt that the educated Africans would carry back to their country 'minds' considerably enlightened and would be particularly well instructed in the Christian religion. And since most of the Africans to be educated were the sons of chiefs, it was felt also that in due course a large proportion of the kings and headmen of the surrounding countries would receive their education in England, thus there was the probability that they would value the friendship and in a good measure adopt the views of the British Government. It was also envisaged that as the governments in Africa were in a great degree hereditary, when these youths succeed to power, there would be a fair prospect of their carrying into effect in the countries which they would respectively govern, plans more or less similar to those inculcated in England and pursued in the colony (33, p. 741).

Explaining why education of the sons, relatives, and nominees of chiefs should be encouraged, Ormsby-Gore, a member of the British Parliament, some hundred and fifty years later, emphasized that

education for the masses of Africans could not really succeed unless those whom the African recognized as his natural leader was educated ... any permanent general advance of the bulk of African people could only be achieved by the leadership of their own chosen leaders (63, p. 764).

Among the youths who had the opportunity of being educated abroad were the three sons of the kings of Ashanti, Ansah, Nkwantabisa and Kwasi Buakye and Kwamina Poku, nephews of the King of Ashanti. One man who excelled in his European
educational career was Anthony William Amo of Axim. He left for Europe in 1707 and, after studying and lecturing at the Universities of Halle, Jena, and Wittenberg, crowned his academic career with a doctorate at the last of these institutions in 1734. This won him a citation which described him as "vir nobilissime et clarissime." Later, at the court of Berlin he was awarded the title of Counselor of State. After residing in Europe for thirty-seven years, he finally returned to Axim, where he lived a private life (47, pp. 169-179).

Another boy who had been given the Dutch name Jacobus Captein was sent to Holland at the age of nine by a Dutch trader, Van Goch. He, too, was a brilliant student and, after nine years of schooling, entered Leyden University in 1737. After completing his studies, he was ordained the first African Protestant minister and was subsequently appointed chaplain to the Dutch Company at Elimina, where he helped conduct services at the castle. According to McWilliam (53), however, he survived less than five years after his return to the Gold Coast, and his life there was difficult since the Europeans disregarded his office because of his color and his own people ostracized him. Yet, although Captein's career was short and troubled (33) he was instrumental in helping to render the local language, Fanti, in writing, and later had the Lord's Prayer, parts of the
Catechism, and the Ten Commandments published in Fanti. Indeed, he may be referred to as the pioneer of vernacular literature for his translation of the Apostles' Creed into Fanti. These translated fundamentals of the Christian faith were Captein's unique contribution to missionary work, and his educational endeavors, in Graham's opinion, were no less remarkable. In 1740, only seven of the forty-five pupils in Captein's school were mulattos; in the Cape Coast area African and mulatto children had equal educational opportunities and girls as well as boys were given formal instruction (11, p. 85). By the time of his death in 1747, Captein had succeeded in placing the school at Elimina on a strong footing. He had a core of 400 students, both boys and girls, who were playing a useful role in their society. It was from his school that students with some knowledge of the Catechism, the Creed, the Lord's Prayer, the Commandments, and portions of the New Testament were sent to help the African community.

Other Africans were also sent to Europe to be educated. Although they won high academic standards, yet, they failed on their return to the Gold Coast, owing probably to the same barriers of prejudice and ostracism encountered by Jacobus Captein.
The Danes

By the second half of the Seventeenth Century, the Danes had established their headquarters in the Gold Coast at Christiansborg castle east of Accra. In 1727, they also established a school for mulatto children (30). Among the early pupils at this school was Christian Protten, who was subsequently sent to Europe for further study. While there he met with the leaders of the Moravian Church, who eventually became the first Protestant missionaries on the Gold Coast in 1737. Unfortunately, they all died of fever shortly after their arrival at Christiansborg, and the mission was closed in 1771 (35, pp. 172-173).

Nevertheless, the castle school continued with the help of the Danish Governor, Major de Richelieu. Richelieu wanted to put education and missionary work at Christiansborg on a more permanent basis; thus on his return to Denmark he invited the Basel Mission to the Gold Coast. This mission's contribution to the development of education in the colony was described by Guggisberg a hundred years later as "first and foremost as regards quality of education and character training" (38).

The British at Cape Coast

As Christiansborg castle became the source of educational development in the eastern part of the Gold Coast, the British headquarters at Cape Coast became an
educational center for the West (53, p. 11). According to Graham, the need for literate interpreters induced the Royal African Company to set up a school at Cape Coast castle in 1694, with John Chiltman as its first teacher (33). The pupils were given rudimentary lessons to enable them to fill the limited clerical jobs available in the castle.

In 1701, the Society for the Propagation of the Gospel (SPG) was founded in England with the aim of sending missionaries to the West Indies and North America. One of the missionaries, the Rev. Thomas Thompson, who was educated at Cambridge and had worked for five years among the negro slaves in the plantations of America and the West Indies, requested to go to West Africa (79). Consequently, the SPG sent him to Cape Coast Castle in 1751, where he stayed from May 13, 1752, to February, 1756. Before Thompson's arrival at Cape Coast, religious teaching was confined within the walls of the castle, but during his stay he brought many changes to the castle's life and activities. Thompson wanted to experiment with the natives to see what the Christian religion might yield among them, so he traveled extensively on the coast, studied the language of the people with whom he worked, and tried to understand some of their local customs and aspects of their culture which seemed to him at first sight to be "ridiculous and sinful" (79). In his Account of the Two Missionary Voyages,
Thompson described the zeal with which he executed his duty. After trying in vain to convince the chiefs and people of Cape Coast to provide a classroom, he hired a room at his own expense and began to teach the few students who were eager to learn.

Graham notes that Thompson's first approach to the chiefs and people was not made through the merchant company and it demonstrated his understanding of the local situation as well as his maturity of purpose and approach. His efforts were considered to be the first serious attempt to convince the Cape Coast chiefs of the value of Western education for their community. Thompson's school was intended for mulattos as well as the children of some caboceers (important chiefs) and wealthy merchants (33, p. 14).

Apart from Thompson's contribution to his school, he was perhaps the first man to take Christian teaching outside the castle and bring it to the Africans and to make the school the nursery of the church (33). Although he remained in the Gold Coast for only four years due to ill health, he succeeded, at the expense of the SPG, in sending three Cape Coast boys to England to study at a school in Islington in 1754: Philip Quaco, Thomas Caboro, and William Cudjo. Unfortunately, two of them died leaving behind Philip Quaco, who was then fourteen years old. He studied in England for ten years and eventually obtained the master of arts degree
from Oxford University (10). In 1765 he was ordained as the first African priest in the Anglican Church, and he was then appointed by the SPG as its "Missionary, Catechist and Schoolmaster to the Negroes on the Gold Coast" (53, p. 11). When he arrived at the Cape Coast Castle in 1766, he revived the educational process that Thompson had diligently pioneered. His school accepted boys and girls and was open to mulattos, Africans, and children of non-Christian parents. Quaco held his position until his death fifty years later (10).

Quaco encountered many difficulties in his work, due to lack of interest among the local people, the frequent indifference and occasional hostility of the castle authorities, and inconsistent backing from the SPG. McWilliam states that, during a period of twenty-two years, from 1773 to 1795, the SPG wrote to Quaco only two times, and at his death at the age of seventy-five his salary was well over £300 in arrears (53). Furthermore, he was paid in goods and not cash since the Gold Coast had no recognized currency system. Some writers on the social history of the Gold Coast have cited the many obstacles faced by Quaco as explaining the small size of his classes and his school's relative lack of progress. It is also frequently argued that Quaco's unpopularity was partly due to the fact that he
had forgotten his mother tongue while in England. This created a communication barrier and angered his countrymen.

The most fruitful period of Quaco's ministry was probably the few years during which he received strong local support from a group of merchant company officials who had formed a dining club called the Torridzonian Society in 1787 (51). In 1788, this group provided Quaco's school with funds for teaching, clothing, and feeding the twelve mulatto students. During these years the English merchant company that controlled the Cape Coast continued to show interest in education. In 1801, its officials made strenuous efforts to strengthen the Cape Coast school, and in 1816, after Quaco's death, they revived it. In 1821, after the British government abolished the merchant company, it placed the Cape Coast Castle under the authority of Sir Charles McCarthy, then the governor of Sierra Leone, and renamed it the "Colonial School." Subsequently the institution became known as the Government School until 1956, when the British government ceased to operate primary and middle schools and handed them over to the Cape Coast Municipal Council, which managed them through the Anglican Church. The old Cape Coast Castle school is now the oldest surviving school in Ghana. It produced the first generation of English-educated Africans, who had an immense impact on the colony. Prominent among them were George Blankson of Anomabu, who in
1861 became the first pure African member of the Gold Coast Legislative Council (1), and the leaders of the Fanti Confederation, formed in 1867, the first movement for self-government combining African and British ideas.

Assumption of Control by the British Government, Missionary Activities, and Mission Schools

By the beginning of the Nineteenth Century, only the English, the Danes, and the Dutch still had forts and settlements on the coast, including Elimina, Cape Coast, Anomabu, Dixcove, and Christiansborg (now Accra), most of which were operated by the British African Company of Merchants (32). However, since the company was unable to provide protection against the invasions of 1807, 1811, and 1814, in which the Ashantis sought to establish control over the coastal states of the Fantis, to disrupt trade in gold, timber, and palm oil, and threaten the security of the English forts, the British took over from the Company in 1821. Consequently, government authorities assumed greater responsibility in the coastal areas in order to maintain peace, repress the slave trade, and protect English commercial interests. In 1827, after another war with the Ashantis, the British government returned control to a Committee of Merchants, but took over again in 1843. The British strengthened their position and entered into a series of wars with the Ashantis, who had hitherto dominated
the Fantis. In 1844, under the leadership of Governor Maclean, the Fantis and the British on one side and the Ashantis on the other, signed a tripartite treaty of peace and free commerce, popularly known as the Bond of 1844. Under the terms of this Bond the British were to protect the coastal land and authority of the Fanti chiefs, and the Fantis were to mold the customs of their country to the general principles of English law (24).

In 1873-74 the Ashantis made their last attack on the coastal area but were defeated when the British invaded and destroyed their capital Kumasi. Recognizing the need for permanent administration and protection, the British government declared the forts and settlements of the coast to be a Crown Colony and placed other coastal territory under British influence as a protectorate.

In 1896 the British occupied Kumasi, and forced the Ashantis to accept their protection and deported the Ashanti king and other leaders to the Seychelles Island, where they remained until 1924. In 1900, yet another war broke out between the Ashantis and the British when the colonial governor, Frederick Huckson, demanded to sit on the golden stool of the Ashantis, which they regarded as the resting place of the soul of their nation.

British officials had concluded treaties of trade and protection with several tribes in the northern part of the
Gold Coast. Then, in 1901, the British Government formally declared (1) "the colony" (the area that now comprises the Western, Central, Eastern and Greater Accra Regions and the Coastal section of the Volta Region) as a colony for settlement, (2) Ashanti (approximately the present Ashanti and Brong-Ahafo Regions) as a colony by conquest, and (3) the northern territories (approximately the northern and upper regions, with the exception of their eastern sections) as a protectorate, as shown in the map of Ghana in Appendix B. These three areas formed the British colonial territory known as the Gold Coast. A fourth area was added to the country, however, when Ghana gained its independence—this was the strip of former German Togoland that first came under British Administration as a League of Nations mandate after World War I and remained under British control as a United Nations Trust territory after World War II. The area included most of the present Volta Region and a strip on the eastern side of the present northern and upper regions (32).

A peace treaty between the Ashantis and the Fantis, coupled with the expansion of British control in the Gold Coast, gave a considerable boost to trade and commerce and cleared the way for missionary activities which, in turn, stimulated educational expansion in the colony. Three missionary societies were established during this period: the Wesleyan Missionary Society of the Methodist Church, the
Basel Missionary Society of the Presbyterian Church, and the Bremen Missionary Society of the Evangelical Presbyterian Church. Other missions were founded later by the Catholics, the African Methodist Episcopalians (the AME Zion Mission), the Anglicans (the English Church Mission), and the Ahmadiyya Movement.

The Wesleyan Missionary Society

The Wesleyan Missionary Society came to the Gold Coast in 1835 in response to a request for Bibles made by William de Graft, a leader of a Christian group at Dixcove and an early product of the Cape Coast Colonial School. After hearing of de Graft's request from Captain Porter, who offered a free passage in his ship to any missionary whom the Society wished to transport to the Gold Coast, the Rev. Joseph Dunwell was sent to the colony. He reached Cape Coast on January 1, 1835. He and his successors, Mr. and Mrs. Wrigley and Mr. and Mrs. Harrop, died within a few months of their arrivals, but, despite these daunting events, the Rev. Thomas Birch Freeman, the son of a Negro father and an English mother, volunteered his services and arrived at Cape Coast in January 1838. Although Birch lost his wife less than six months later, he maintained an outstanding record of individual missionary service for nineteen years until he resigned in 1857 (53, p. 17).
Before the Wesleyans came to Cape Coast, the castle school was flourishing. In 1838, the Wesleyans had one school in addition to the castle school; in 1841, there were nine schools, and by 1880, the Wesleyan Mission, under Freeman's successors, had opened eighty-three schools and had an enrollment of over three thousand pupils (72). The Wesleyan schools were established in the existing British settlements of Cape Coast, Manso, Saltpond, Komenda, Dixcove, Anomabu, Accra, Abasa, and Winneba.

Available records from the first half of the Nineteenth Century indicate that it took a great deal of effort for the Wesleyan Missionaries to persuade some chiefs to recognize the need for schools. A Wesleyan minister wrote in 1842, "I found the people very much prejudiced against schools because the chiefs had sowed seeds of prejudice among the people" (33, p. 49). The Rev. W. Thackaray also described his long and pleasant conversation with King Amunu of Cape Coast during which he tried to convince the king of the powerful advantages of reading and writing. Thackaray succeeded by using several illustrations—comparing the advantages of sending a letter instead of traveling to transmit a message oneself; pointing out that a letter could not alter itself whereas a messenger might deceive, forget, make a mistake or even stumble over a stone; and noting that a letter could sometimes gain admission where the writer
himself might not (56). In a letter to the Missionary Committee, the Rev. Addison told how much of his time had been occupied in the streets and houses of the town in an effort to conquer the natives' prejudices against education (55). Eventually, the chiefs saw the need for education, began to help the missionaries to establish schools, and even initiated schools themselves on occasion.

As indicated by Graham (33), it is important to know something of John Wesley's religious and educational philosophy in order to understand and appreciate more fully the work done by the Methodists in the educational field generally in the Nineteenth Century. Wesley believed that "all men are brothers redeemed by the love of God and the sacrifice of Christ to him, therefore, all men are members of one family of whom God is the father." He felt that a good education should originate in the family and believed that it was essential for children to submit without question to their parents' and teachers' instructions. He had no faith in large public schools; he once said, parents, if they had any concern for their children's soul, must send them not to any of the large public schools since they are nurseries of all manner of wickedness, but rather to a private school, kept by some pious man, who endeavors to instruct a small number of children in religion and learning together (19, p. 145).

Wesley was convinced that boys and girls should be given an equal opportunity to educate themselves.
The Wesleyans' view of a good education for both the Africans and themselves emphasized personal religion based on the Bible. Of course, this type of education called for a certain intellectual requirement; therefore, the Wesleyans believed that individuals must be taught to read, understand, and search the scriptures, if they were to make them a personal possession and so achieve salvation. The Wesleyans tended to emphasize the importance of high standards of personal conduct, and this also helped to inculcate a new sense of responsibility towards social and educational reform. This was the foundation upon which the Wesleyans' education and missionary activities in the Gold Coast was based.

The Basel Missionary Society

At the request of the Danish Governor de Richelieu, the Basel Mission sent four missionaries to the colony who landed at Christiansborg in 1828. During this period, while the Wesleyans were concentrating on opening schools on the coast, the Basel Mission's headquarters was established in Accra.

Within three years of their arrival, all four of the missionaries had died, but three more volunteers arrived in March, 1832. By July of that year two of them also expired, leaving Andrea Riis as the only survivor. After suffering a severe illness during which his life was saved by an African
doctor and having been frightened by the heavy toll on the lives among the Basel missionaries, Riis decided to move to the much healthier Akwapim Ridge at Akropong in 1835. In 1837, two more men were sent to help him, but they also died within a year.

Not until 1840, after Riis had returned from leave in Holland, did the Basel Missionary Society begin to experience some steady progress. In order to understand and appreciate the work done by the Basel mission, it is important to note the principles upon which Riis and his successors based their work.

1. They believed that, since the indigenous merchant class and the heterogenous population in the urban areas depended predominantly on an exchange economy, the rural areas would be more congenial to their purposes as missionaries and educationists.

2. They believed in the establishment of boarding schools so that they could remove the pupils from their former environment and make a frontal attack on the traditional life of the small communities.

3. They believed that any thorough system of education depended on a supply of trained teachers.

4. They believed education for girls was just as important as for boys.
5. They believed that training must not be confined to academic subjects (53, p. 19).

Although some of these principles seem too obvious to mention, according to McWilliam, for over half a century the Basel Mission was the only one to recognize and successfully put them into practice. Based upon these guidelines, the Basel Mission Society established its first boarding school for boys in 1843 and another school for girls in 1847, both at Akropong. In 1854, however, the girls' school was transferred from Akropong to Aburi. In 1848, five years after the establishment of the first Akropong school, a seminary was founded there to train catechists and teachers, followed by a second at Christiansborg two years later. In 1856, the two seminaries were consolidated in a single institution at Akropong (33, p. 55) that was later reorganized as a four-year theological seminary. By 1880, the mission had established forty-two schools and enrolled 1,200 pupils.

In describing the Basel Mission's system of education at that time, Carl C. Reindorf, an early product of the mission and the first African historian wrote in 1895,

The brighter pupils from the primary schools were selected each year into one of the three middle schools at Akropong, Christiansborg or Begoro. After three years the good students had no difficulty in obtaining an apprenticeship in a mercantile business or in a government office while others became farmers or learnt a trade in the industrial shops. Nevertheless, those who wished to become teachers or catechists had a
fourth year's preparatory course before entering special seminaries. The Teacher Training was a two-year program attached to the Theological Seminary (66, p. 251).

As usual, the mission was criticized concerning their position on educating girls, but, by 1918, the Basel Mission teachers had almost as many girls as boys in their schools in the Akwapim area and a ratio of just under three boys for every girl in all of their schools. This proportion was substantially larger than the ratio of six boys to one girl in government schools and seven boys to one girl in the Wesleyan schools. After 1920, there was a general effort to rectify this disparity. As Guggisburg declared, "Nothing is more detrimental to the progress of this race than the old system of educated husbands and illiterate wives" (36, p. 204). By 1957, the ratio in government schools had improved to just over two boys for every girl.

The Basel Mission's efforts in technical education were for many years unique in the Gold Coast. The missionaries opened industrial establishments in Christiansborg and offered courses for joiners, wheelwrights, carpenters, locksmiths, blacksmiths, shoemakers, bookbinders and house builders (75, pp. 690-697). As McWilliam observes, not only did these courses make the natives self-supporting but their steady output of skilled craftsmen caused a general improvement in the colony's standard of living (53).
By the 1850s, the Basel Mission had published an elementary grammar and dictionary that aided the production of primers and readers for their schools. This development also made it possible for the mission to train a steady stream of trained catechists and teachers who helped to spread Christianity to practically every part of Akwapim.

The Bremen Missionary Society

The entry of the Bremen Mission to the Gold Coast differed from that of the missions already described in the sense that its pioneers did not start their work from the existing European controlled bases on the coast (34). Rather, they went directly about seventy miles inland to Peki at the invitation of the Ewe chief (53, p. 21). The early work of the Bremen missionaries was not significant since by 1880 they had founded only four schools in the Gold Coast; most of their schools were located in the areas which became the German colony of Togo in 1884. Following World War I, however, the German segment of Togo, along with its schools, came under the control of the Gold Coast government.

In November, 1847, after losing his three companions, the Bremen missionary Lorenz Wolf started work at Peki. Although two other missionaries were sent to help him, Wolf and his wife were compelled to return to Europe in early 1851 due to his failing health; Wolf died on board ship.
This brought the mission to an end since the remaining two missionaries could not continue without Wolf.

In 1853, however, the Bremen Society made another attempt, this time at Keta—a coastal location rather than the inland site of Peki—in the hope of avoiding disruptions caused by tribal wars. From Keta the Bremen missionaries steadily advanced inland once more. Their educational work was similar in pattern to that of the Basel group in that they emphasized trade instruction, particularly in building. They established seven-class schools at their main stations including one at Amedzofe which was converted into a seminary in 1890 to train teachers and catechists who went out and established single-class schools in the villages. By 1906, the Bremen Mission had over 3,000 pupils attending schools in Togo and the Gold Coast (53, p. 24).

The Catholic Mission

After the Portuguese were expelled from the Gold Coast in 1637, another unsuccessful attempt was made by a group of French missionaries to found a school at Axim between 1638 and 1641. During the Nineteenth Century, several Catholic priests visited the colony on their way to other destinations, but no permanent station was established until 1880, when Fr. A. Moreau landed at Elimina (35). By 1886, 300 children were enrolled in Catholic schools on the government assisted list.
The African Methodist Episcopalian Zion Mission

The AME Zion Mission was established among the Ewes at Keta by an American Negro in 1898. The mission opened its first school in 1900, and by 1914 it had three schools assisted by the government (53, p. 39).

The English Church Mission

The English Church Mission (ECM) was a branch of the SPG, which represented the Anglican Church in the Gold Coast during the time of Philip Quaco. In 1904, the ECM founded a secondary school which was the forerunner of the Adisadel College at Cape Coast in 1910. By 1914, it had three assisted primary schools.

The Ahmadiyya Movement

The Ahmadiyya movement originated in India during the era of British rule and spread to many other British colonies along the coast of Africa through Indian traders. Its doctrine was based on both Christian and Islamic teachings. The followers of this movement believe that, after His crucifixion, Jesus preached in India and that Jesus and Mohammed were reborn in the founder of the sect, Mirza Ghalam Ahmed, who died in 1908.

The Ahmadiyya movement established its West African headquarters at Saltpond in 1921. In 1923, it opened its first school and by 1959 it had about ten primary and middle
schools in southern Ghana and Ashanti. The Ahmadiyya Secondary School in Kumasi received its first grant from the government in 1957 (53).

The Effects of Mission Education

Commenting upon the effects of mission education, McWilliam (53) stated the Christian missionaries established the foundation for the development of education in Ghana. Most of the mission schools abandoned the native language of the people and established English as the medium of instruction, but the German-speaking instructors of the Basel and the Bremen Missions not only used the German language but encouraged the use of the vernacular as well as initiating studies in Ga and Twi.

The mission schools produced two worlds by encouraging the separation of the minority of literates and Christians from the rest of the total community. As noted in Chapter I, African religion, music, art, and other social activities were considered evil and satanic and therefore excluded from the curriculum, and traditional forms of training for citizenship like the Dipo (46), which the missionaries referred to as "bulwarks of satan," were banned and replaced with character training of a kind to produce citizens of a high quality to serve a changed country (53).

The following Table gives an overview of the total schools established and pupils enrolled from 1881 to 1951.
| Year   | Total | Publicly Assisted | | Unaided |
|--------|-------|------------------||--------|
|        |       | Government and Assisted | | Designated |
|        |       | Total | Government | Assisted | |
| Schools |       |       |       |       |       |
| 1881   | ...... | 139   | 3      | 139   | *      | ..... |
| 1890-91| ...... | 54    | 3      | 49    | *      | ..... |
| 1901   | 255   | 135   | 135    | 7     | 128    | 1.20 |
| 1911   | 377   | 160   | 160    | 19    | 197    | 217 |
| 1920   | 524   | 216   | 216    | 28    | 312    | 308 |
| 1930   | 591   | 340   | 340    | 23    | 444    | 251 |
| 1940   | 931   | 467   | 467    | 23    | 444    | 464 |
| 1941   | ...... | 466   | 466    | 23    | 444    | 817 |
| 1942   | ...... | 471   | 471    | 4    | 584    | 1,582 |
| 1943   | 1,227 | 492   | 492    | 4    | 584    | 852 |
| 1944   | 1,676 | 503   | 503    | 4    | 584    | 1,501 |
| 1945   | 2,561 | 553   | 553    | 4    | 584    | 1,501 |
| 1946   | 2,753 | 578   | 578    | 4    | 584    | 1,501 |
| 1947   | 3,018 | 1,436 | 629    | 23    | 666    | 1,451 |
| 1949   | 2,973 | 1,622 | 666    | 41    | 625    | 1,451 |
| 1951   | 3,073 | 1,622 | 666    | 41    | 625    | 1,451 |
|        |       |       |       |       |       |
| Pupils |       |       |       |       |       |
| 1881   | ...... | 5,000 | 5,000  | 5,000 | *      | ..... |
| 1890-91| ...... | 5,076 | 5,076  | 5,076 | *      | ..... |
| 1901   | ...... | 12,018| 12,018 | 12,018| *      | ..... |
| 1911   | ...... | 18,680| 18,680 | 18,680| *      | ..... |
| 1920   | 42,132| 28,050| 28,050 | 4,250 | 24,255 | 13,627 |
| 1930   | 53,550| 41,917| 41,917 | 6,362 | 35,555 | 11,633 |
| 1940   | 88,720| 61,832| 61,832 | 6,269 | 55,563 | 26,888 |
| 1941   | 89,242| 61,286| 61,286 | 6,269 | 55,563 | 27,956 |
| 1942   | 96,643| 64,063| 64,063 | 6,269 | 55,563 | 32,580 |
| 1943   | 113,431| 69,082| 69,082 | 6,269 | 55,563 | 44,349 |
| 1944   | 143,322| 74,193| 74,193 | 6,269 | 55,563 | 66,193 |
| 1945   | 184,520| 79,454| 79,454 | 6,269 | 55,563 | 105,066 |
| 1949   | 291,519| 126,979| 100,888| 7,640| 93,248 | 96,091 |


*Category of school did not exist.*

* Source gave no figure.
By 1880, the Gold Coast had more than a hundred mission schools in the country while the number of government schools was declining in size. Consequently, following the practice of most other British colonies, the government, instead of improving its own schools, began to assist the schools sponsored by missions and individuals by giving them grants in aid (53).

As a result, in 1882, the Gold Coast Legislative Council passed an ordinance "for the Promotion and Assistance of Education in the Gold Coast Colony including Lagos." Since the schools differed very greatly with regard to size, curricula, and the like, the government developed criteria to determine which of them would be eligible for grants, and a Board of Education and an inspector who reported to it concerning the general condition of the schools were established (88). However, due to the difficulty of applying a single set of rules to the schools of missionary bodies which had hitherto worked on such independent lines, the ordinance failed.

In 1887, another ordinance was passed for the Gold Coast alone since, from 1886 onwards, Lagos had its own administration and ordinances. According to Graham, this ordinance formed the basis of Ghana's educational system (33). In 1890, Governor Bradford Griffith instigated the
Legislative Council to appoint a Director of Education for the Gold Coast.

The Board of Education recognized two categories of primary schools, "government" and "assisted." The latter were operated by non-governmental entities, including missionaries and private individuals. To qualify for public funds or government assistance, each school had to satisfy the conditions set by the Board of Education, which included the following:

1. The school should be open to all children, regardless of race or religion.
2. The school should have an average attendance of at least 20 pupils.
3. The teachers should hold the Board's certificate, either honorary or by examination.
4. The subjects taught should include reading, writing of the English language, arithmetic, and (for females) plain needle work.

Schools that failed to satisfy these requirements received no grants from the government and were referred to as non-assisted.

The 1887 ordinance made it possible for any school to qualify for a grant, provided that it maintained the Board's standards of efficiency (33, p. 146). Grants were paid on a merit system of payment by results, in which the amount of a
school's grant depended on how many children in each "standard" passed the annual examination conducted by the inspector. These examination results also determined the level at which the teacher's salary would be set. A grant of 2 shillings per pupil per year was paid for each pass in arithmetic, reading, and writing while grants varying from six pence to two shillings per pupil, based on average attendance, were paid in each of the other subjects as follows (12):

<table>
<thead>
<tr>
<th>Subject</th>
<th>Passes</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>76</td>
<td>2s</td>
<td>7 12 0</td>
</tr>
<tr>
<td>Writing</td>
<td>68</td>
<td>2s</td>
<td>6 16 0</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>68</td>
<td>2s</td>
<td>6 16 0</td>
</tr>
<tr>
<td>Geography</td>
<td>64</td>
<td>2s</td>
<td>5 14 0</td>
</tr>
<tr>
<td>History</td>
<td>57</td>
<td>2s</td>
<td>5 14 0</td>
</tr>
<tr>
<td>Sub-standards (i) and (ii)</td>
<td>6</td>
<td>1s</td>
<td>0 6 0</td>
</tr>
<tr>
<td>Organization and discipline</td>
<td></td>
<td>6d</td>
<td>2 2 6</td>
</tr>
<tr>
<td>Merit grant 90% at 2s</td>
<td></td>
<td></td>
<td>39 0 0</td>
</tr>
<tr>
<td>Average attendance at 2s</td>
<td></td>
<td></td>
<td>8 10 0</td>
</tr>
</tbody>
</table>

**TOTAL** 88 18 6

This system had a number of undesirable results.

1. It encouraged "rote" learning since in the brief examination there was no time to ascertain whether students actually understood the answers or readings.

2. It tempted teachers to introduce too many subjects into the timetable, as they hoped to receive a small grant for each, however inadequately taught.

3. It made the teachers and the inspectors enemies instead of workers in the same field.
4. It was unfair to the teachers because it implied that the failure of a pupil was automatically the fault of the school.

The system did, however, impart a very strong sense of discipline to the pupils, for they well knew what would happen to them if their teachers' salaries were reduced by their failure to give the inspector the right answers.

A review of how schools were managed under the 1887 ordinance indicates that a system of managerial control was set up in place of local boards. The local governing body of a mission society became the board of management of its school and was responsible to the government for its efficiency. The managing body appointed local managers—usually ministers in charge of the church—to assume control of each school and to be accountable to the central management body in Cape Coast or Accra. The newly constituted Board of Education in 1887, which remained in place until 1925, consisted of members of the Legislative Council and eight nominated members, with the governor or his representative as chairman. The enrollment in Government and Assisted Schools for the period 1926-28 is shown in Table III.
TABLE III

ENROLLMENT IN GOVERNMENT AND ASSISTED SCHOOLS
IN THE GOLD COAST, 1926-1928*

<table>
<thead>
<tr>
<th>Sponsorship of School</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presbyterian</td>
<td>10,278</td>
<td>10,468</td>
<td>11,062</td>
</tr>
<tr>
<td>Wesleyan</td>
<td>7,999</td>
<td>8,231</td>
<td>8,436</td>
</tr>
<tr>
<td>Catholic</td>
<td>4,137</td>
<td>4,020</td>
<td>4,067</td>
</tr>
<tr>
<td>Government</td>
<td>4,625</td>
<td>4,651</td>
<td>4,689</td>
</tr>
<tr>
<td>Ewe Presbyterian</td>
<td>2,636</td>
<td>2,808</td>
<td>2,914</td>
</tr>
<tr>
<td>A.M.E. Zion</td>
<td>1,103</td>
<td>1,020</td>
<td>1,077</td>
</tr>
<tr>
<td>English Church</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission S.P.G.</td>
<td>941</td>
<td>1,064</td>
<td>1,277</td>
</tr>
<tr>
<td>Ahmadiyya</td>
<td>58</td>
<td>73</td>
<td>81</td>
</tr>
<tr>
<td>Undenominational</td>
<td>416</td>
<td>426</td>
<td>518</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32,193</td>
<td>32,761</td>
<td>34,121</td>
</tr>
</tbody>
</table>


Nationalism and the Demand for Higher Education and Universities in West Africa

As Ashby (2) has noted, nationalism means different things to different people. A dictionary definition is devotion to the interest of a particular nation; in a broader sense, Hodgkin (41, p. 23) relates nationalism to any organization, group, or individual that explicitly asserts the rights, claims and aspirations of a given society in opposition to foreign authority or domination, whatever its institutional form and objectives. Nationalism may also encompass the organized movement of a people,
irrespective of whether they comprise a truly national
group, towards self-government or independence (45, p. 57).

In India nationalism was established in the universi-
ties when teachers and students turned back to their own
culture with renewed respect by adapting themselves to their
indigenous intellectual climate (52). According to Hailey
(37), nationalism in the African context derived from the
African's desire to demonstrate that his individuality was
so different from the European that he was ready not only to
claim freedom from European control but to adopt only those
European traditions that suited his own particular circum-
stances. After passing from slavery to freedom, many
Africans had the opportunity to see other lands and became
conscious of the technological and other gaps separating
them as a people from others, and, as a result of the
alleged racial inferiority of the Negro in the writings of
Europeans, the racial consciousness of the Negro naturally
gave rise to his nationalism (4, p. 200).

According to Ashby, African nationalism was an amalgam
of three ingredients:

1. Loyalty to a race, the black African people;
2. Loyalty to a culture, a mystique that Nkrumah called the
   African personality, which entails their oral tradi-
   tions, religion, dance, and music; and
3. Loyalty to political unity with ultimate liberation from foreign control and a passionate distrust of foreign authority in any form, including imperialism, trusteeship, and the paternalism of protectorates (2, p. 3).

In West Africa, nationalism, like education and Christianity, was pioneered by slaves and their descendants (76, p. 299). Among the first group of nationalists who distinguished themselves for the part they played in the demand for and establishment of higher education and universities in West Africa were Horton, Blyden, Hayford, and Azikiwe. As noted by Okafor, all of these nationalists' activities were influenced by their general backgrounds, their professions, and the constitutional stage at which their various countries had arrived at the time.

**James Africanus Beale Horton**

James Horton, a Creole, was born in 1835 to an Ibo father who was a recaptive carpenter in Gloucester, Sierra Leone. After completing his course of study at Fourah Bay College in Sierra Leone, Horton was sent to England at the expense of the Church Missionary Society to study medicine under the auspices of the War Office. In 1858, he obtained both the MRCS and an M.D. degree at Edinburgh. Later that same year, he entered the army and was posted to the Gold Coast with the rank of Staff-Assistant Surgeon. According to Fyfe (31), Horton was a forceful, outspoken and
many-sided man. Not only did he publish numerous books and pamphlets, both medical and non-medical, but he was also interested in political and financial matters. His nationalistic ideas were expressed in his publications, notably *West African Countries and Peoples, British and Native: With the Requirements Necessary for the Establishment of that Self-Government Recommended by the Committee of the House of Commons, 1865; and A Vindication of the African Race*, published in 1868 (42). As a medical man, Horton delighted in disproving facts concerning the inferiority of the Negro race and the alleged anatomical similarity of the Negro to the ape posited by the modern anthropological society of London. With the support of some Englishmen, including Lord Alfred Churchill and his African Aid Society, as well as quotations from scientific works, Horton was able to prove his opposition wrong.

But it is in the development of the most important organ of the body—the brain and its investing parieties—that much stress has been laid to prove the simian or ape-like character of the negro race . . . . Among the negro race, at least among the thousands that have come under my notice, the posterior sutures first close, then the frontal and coronal, and the contrary has never been observed by me in ever a single instance, not even among negro idiots; and yet M. Gratiolet and Carl Vogt, without an opportunity of investigating the subject to any extent, have unhesitatingly propagated most absurd and erroneous doctrine—that the closing of the sutures of the negro follows the simious or animal arrangement, differing from that already given as the governing condition in man (42, p. 44).
Concerning the inferiority of the Negro race with regard to their intellectual and moral improvement in relation to Europeans, Horton declared,

The detractors of the Negro race withhold the fact that Negroes had been exposed to what he calls, "influences not calculated to develop either the moral, or the intellectual faculties but on the contrary to destroy them." It was not Negroes alone who under pernicious influences become altered but animals and Europeans also. M. Dupins conclusively proved this in his report on the effect of long captivity and severe treatment on European Christians among the Arabs. They lost their reason and feelings; their spirits broke and their faculties sank in an undesirable stupor and when subject to succession of hardships, they lost all their spirit of exertion and hope, became indifferent, servile and brutish.

If bondage and a deprised life had such damnifying influence on the moral and intellectual condition of man in general, how could men be elevated while the climate and geographic burdens which oppressed them were so great? How could they be expected to discover anything like even a 'virtuous emulation' while precluded by their circumstances of slavery? Indeed could any other people have endured the privations or the sufferings to which Negroes had been subjected without being even more degraded? (42, pp. 25-51).

In view of Resolution 3 of the Committee of House of Commons in 1865, Horton described in his book the policies and procedures that should be undertaken to prepare the natives for self-government.

But it is proposed to teach the people self-government, to the ultimate withdrawal of British influence or power, and to leave natives to govern themselves, there must be chosen either a monarchical or a republican form of government. As in the Gambia a republic is unsuited to the taste of the people, so it is at Sierra Leone. It will never survive among the native inhabitants, who have always looked up to their King, to the same influence and effect. A national government will be the only form, and the King should be elected by universal suffrage, supported for some
time by the British Government; he should for a short period be initiated into the art of governing, by serving the subordinate position of a governor over the Colony and its Dependencies, whilst the English Governor should act as Governor-General of all the Coast.

His first policy would be to show himself to be on the popular side identifying himself with the growth of the peoples' liberties, by which means he will secure an underbasis of popular affection, which will be an important auxilliary in his infant Kingdom, where, at the commencement, conflicting views and opinions are possible. He should make merit the great high road to public thrusts, honours, and rewards, thus proving to everyone that measures the intellectual worth and dignity of man, not by the truths which he possesses, or fancies he possesses, but by the sincere and honest pains which he takes to discover them. He should be a native-born Sierra Leonist or a citizen by constitutional adoption... A constitutional form of government must form the basis of his administration, consisting of a House of Assembly which should be composed of men elected by the people, as it will be difficult for his Government to stand without confidence... Besides the House of Assembly there should be the Senate, consisting of men above the age of 35 years and having extensive means, and who may be recognized by all as possessing good practical common sense... Gold and silver should be made the legal tender for the payment of debts; English money be recognized for a period as the state coin, until such time as the country will be able to establish a mint... (42, pp. 61-62).

Horton opened his demands for a university in Sierra Leone by proposing to the Home Government that a medical school be established there to prepare African medical students before they went overseas for further study. After this attempt failed, he provided in his will for the establishment of Horton's Collegiate High School primarily to teach science, in the hope that it might develop into a university (31). Horton also suggested the modification of
certain institutions to fit the needs of the new Sierra Leone when it gained its independence.

The schools which are supported in some measure by fees and endowments obtained by the exertions of the people . . . are good and useful establishments but are open to great improvements. In Sierra Leone there is a good self-supporting grammar school where Latin, Greek, Mathematics and other branches of English education are taught by a native clergyman, which bears most profitable fruit and is fully self-supporting. Besides this there is a large theological college, where the higher branches of learning are taught under the C. M. S. and which the King can do no better than to convert to a university . . . (42, pp. 61-62).

Horton’s demand for a university was intensified in his discussion of the improvement of education in the colony.

We want a University for Western Africa, and the Church Missionary Society has long ago taken the initiative and built an expensive college, which would now be made the focus of learning for all West Africa . . . Fourah Bay College should henceforth be named the University of Western Africa, and endowed by the Local Government (42, pp. 201-202).

He also made suggestions about the curriculum and methods of study to be utilized in his proposed West African University.

A systematic course of instruction should be given to the students, and regius professors appointed; for it is high time to abolish that system of Lancastrian school-boy teaching, and a professor should be appointed to one or two subjects, and should give lectures on the result of extensive reading and research. The subjects will be better mastered by the teachers themselves, and the students would reap largely and benefit. Lectures should be given in the theory and practice of education, classics, mathematics, natural philosophy, mensuration and bookkeeping, English language and literature, French, German, Hebrew, history in general, mineralogy, physiology, civil and commercial law, drawing and music; besides the various subjects which might be included under the term of theology.
But the study of the physical sciences which are closely connected with our daily wants and conveniences, should form an essential part of the curriculum . . . Algebra, arithmetic, differential calculus, trigonometry, and geometry should be included (42, p. 202).

Since Horton wanted to introduce the undiluted form of Western education into Africa, he did not mention the incorporation of African languages in his scheme of higher education (2, p. 12). Although his proposals were brought to the notice of the British government through his books, none of them was adopted.

**Edward Wilmot Blyden**

Edward Blyden, another advocate for a West African university, was born in St. Thomas in the then-Danish West Indies, in August, 1832. Due to his aptitude in English composition in 1850, he was sent to the United States for education by the Rev. and Mrs. Knox, who were in charge of the Dutch Reformed Church at St. Thomas (61). In the United States, however, he encountered racial problems that blocked his progress.

... deep-seated prejudice against my race, exercising so controlling an influence in the institutions of learning, that admission to them was almost impossible. Discouraged by difficulties in my path, I proposed to return to St. Thomas and abandon the hope of an education (15).

After his experience in the United States, Blyden was offered passage by the New York Colonization Society to Monrovia, Liberia, and arrived there on January 26, 1851.
He was admitted to the Alexander Higher School, where he learned Latin, Greek, geography, and mathematics and taught himself Hebrew since it was not offered in the school. After three years of distinguished academic performance, Blyden was put in charge of the school when its principal, the Rev. Wilson left for the United States because of ill health. Blyden became the principal in 1858 and in the same year was ordained as a Presbyterian minister. In 1861, he was appointed professor of the newly established Liberia College. In support of this institution, Blyden wrote,

To say, as has been too often said by persons abroad and persons here, that the establishment of a college in Liberia at present is premature, is to set aside the experience of other countries . . . showing the indispensableness of institutions of a higher order, to send down, through all the ramifications of society, the streams of wholesome and elevating influence . . . . It cannot be denied, that the studies which shall be pursued in this Institution are of great utility to the country just now (17, p. 96).

Like Horton’s, Blyden’s nationalistic ideas were derived partly from the contemporary denunciation of the African race as inferior (49). In contrast to the physician Horton, however, Blyden attacked the denigrators of his race from a liberal arts standpoint,

Various theories have been stated as furnishing satisfactory explanation of curses upon this unfortunate (African) race. Of these none has been more strenuously urged by the opposers of the race than that which refers its condition to a malediction recorded in Genesis 9:25, 26, 27. They who support this theory take the ground that the curse was denounced against Ham, the progenitor of the African race, and, all his posterity . . . .
Now it seems to us that most natural inference which a candid reader would make from this passage is that the curse denounced Ham in that branch of his posterity which descended from Canaan. To establish the hypothesis that the curse included all the posterity of Ham, it appears to us necessary that one of three things be proved to have been the fact. First, it must be proved that the curse was upon Ham himself; second, that it was pronounced upon each of his sons individually; or third, if pronounced upon Canaan, that he was the only offspring of Ham. But we know that none of these was the fact: whence the inference is obvious (16, p. 34).

According to Okafor, before Blyden, West African nationalism was instigated by the Liberian Herald which was founded by Russworm, a Negro who had migrated to Liberia from New England (58). Upon his accession to the assistant editorship of the Herald, Blyden published from 1855 until his death in 1912 the first of a steady stream of literary works, embodying the true origin of West Africa's latterday nationalist thought. These works were later summarized by his grandson, Edward Wilmont Blyden, III (18), who called them "The Blyden Thesis."

(It was) that the black man had a unique contribution to make to universal history and world civilization as had other peoples and races of the world; that such contribution could only be made by Africans and not by Europeans who tried to interpret the African's culture; that while literacy in English and education patterned after the systems of Europe and the West are recognized as sine qua non for progress and survival in the modern world, such exotic systems of thought and social behaviour were of small effect in bringing out the very best in the African or his society, if imposed upon, rather than adapted to, the indigenous institutions and traditional forms of ... cultural activity long established by African himself within his own society; that the process of adapted to and modification of European ideas and beliefs,
if merely imposed upon African society, would fail to serve the needs of the one, and would destroy the life and fire of the other; that, in the African tribal society would fail to survive the test of the true criterion of 'civilization' if the 'trammels' and not the 'essential creeds' of that culture were given the greater emphasis (14, p. 66).

Unlike Horton, who envisioned the improvement of colonial West Africa through politics and administration, Blyden, as a clergyman, was more concerned with improving the culture and integrity of the people through a university. Politics was secondary to him. He repeatedly stressed that Africans should not imitate Europeans but rather should develop along the lines best suited to their environment. Blyden repeatedly blamed the missionaries for Africa's miseducation, and, in comparing the efforts of the Christian missionaries on the Coast to the work of Moslems in the hinterland, he concluded,

It (Islam) has cast out demons of fetishism, general ignorance of God, drunkenness, (and) gambling, and has introduced customs which subserve for the people the highest purposes of growth and preservation. I do not think that a system which has done such things can be outside of God's beneficent plans for the evolution of humanity (84, p. 243).

When Blyden founded a Negro newspaper in Sierra Leone, he wrote to Grant, a member of the Legislative Council of Sierra Leone, in 1872, about the establishment of a good educational institution in Sierra Leone, to be conducted by
trained and experienced Negroes for the whole of West Africa (82, pp. 1-4). In his letter Blyden stated,

Sierra Leone had the most promising position in the world for the erection of an education system adapted to the Negroes' peculiar needs. Everywhere else, especially in the United States of America, influences that tended to confuse the instincts of the race were paramount. But in Sierra Leone the Negro would be surrounded by people in whom it was possible to produce a 'race sentiment.' No factitious restraints growing out of the predominating presence of a foreign race could limit the expression, the investigation or the experimentation of the Sierra Leone Negroes who were just as much at home there as they might be in their original homes on the banks of the Niger or in the Yoruba plains.

It seems, therefore, a common responsibility for the influential natives of Sierra Leone to endeavor to secure for the indigenous youth the means of proper training at home. Such an institution would generate a general diffusion of that higher intelligence which originates public measures which stimulates the people, moderates their impulses, sustains and gives weight to noble enterprises, creates and expounds a healthy public sentiment, and accelerates the normal and spiritual progress of the race' (82, p. 4).

In order to permit the subject to be thoroughly discussed and to arouse the interest and support of the people, Blyden's letter was published in a supplement to the Negro newspaper in June, 1872. Six months later, Blyden corresponded with J. Pope Hennessey, the Governor of Sierra Leone. In his letter, on December 6, 1872, couched in charmingly high-flown phrases with a liberal sprinkling of Latin quotations, Blyden gave a new dimension to his idea of an African university. He wanted the university to release the educational system from the grip of the "despotic
Europeanizing influences" that "had warped and crushed the
negro mind" (17).

In his letter, Blyden also stressed the importance of a
liberal education to the south of Sierra Leone.

If in the Governments of these settlements, native
agency is to be welcomed and encouraged and not
excluded; if the people are ever to become fit to be
entrusted with the functions of self-government; if
they are ever to become ripe for free and progressive
institutions, it must be by a system of education
adopted to the exigencies of the country and race; such
a system as shall prepare the intelligent youth for the
responsibilities which must devolve upon them; and,
without interfering with their native instincts, and
throwing them altogether out of harmony and sympathy
with their countrymen, shall qualify them to be the
efficient guides and counsellors and rulers of the
people (82, pp. 6-7).

Blyden declared that a university was necessary to give the
people the opportunity for free and healthy development that
would civilize and sharpen the character and originality of
the individual.

After several unsuccessful attempts to persuade the
Governor of Sierra Leone to ascertain the British
authorities' support for a university that would be the work
of the Africans themselves, Blyden asserted,

Europeans owe us a great debt not only for the
unrequited physical labours we have performed in all
parts of the world, but for the unnumbered miseries and
untold demoralization they have brought upon Africa by
the prosecution . . . of the horrible traffic to pro-
mote their own selfish ends; and we do not simply ask
it as a favour but claim it as a right when we entreat
their aid as civilized and Christian Governments in the
work of unfettering and enlightening the Negro mind
(82, p. 114).
Blyden lamented the hindrances in the Negro's path.

Pegasus will now be unbound. The tropical African blood that beats passionately in the heart of every Negro will manifest itself in a new social force, in new institutions and a new literature. The present straight-jacket of unmodified Europeans training hold back the hand of many a master. We are racked and torn on the bed of Procrustes. The idea that he must always conform in his views to the canons of European taste produces upon the mind of the cultivated Negro a practical paralysis, preventing it from acting naturally or freely. The intelligent few who ought to guide their people are thus hampered and rendered inefficient by the very conditions of their existence. The masses not being able to avail themselves of the intelligence, wisdom and ability of the few, except through the channel of European thoughts and prejudices, and the few being therefore cut off from the strength, support and reverence of the masses are altogether estranged from habits of self-respect. It is this that gives to all Negro communities . . . that deep tinge of servility and that spirit of self-conscious inferiority which are really more degrading and emasculating than the alleged intellectual sterility (62, p. 16).

It should be emphasized that during the mid-Nineteenth Century a number of Africans had been trained to take over from the European missionaries, but a struggle for power existed between the white and the Negro clergy. The church gave Blyden his strongest support in the religious strain of African nationalism known as Ethiopianism, a name derived from Psalm 68:31 ("Ethiopia shall stretch forth her hand to God"). The Christian church was almost the only public institution in which educated Africans could give free expression to their personalities (50).

Ethiopianism stirred up Negro racial pride and became a beacon of hope that educated Africans believed would be
fulfilled in the future. This hope was directed first towards administrative independence or self-government in the church and, consequently, the elevation of Africans to higher posts and, second, toward adaptation of Christian teachings to the African environment. As Okafor states, these goals were at the very core of Blyden's writings (61).

Blyden's letter to Grant and the subsequent publication of the Blyden-Hennessey correspondence concerning a West African university fostered a great deal of discussion among the natives, especially pastors, who began to demand control of education and the church, the two most potent sources of Western contact. Pastors cherished the ideas of Blyden's West African university because it would help them to achieve one of their aims.

James Johnson wrote,

It has been forgotten that European ideas, tastes, languages, and social habits, like those of other nations, have been influenced . . . by geographical position and climatic peculiarities; that what is esteemed by one country polite, may be justly esteemed by another rude and barbarous; and that God does not intend to have the race confounded, but that the Negro or African should be raised upon his idiosyncrasies (50, p. 405).

As the initiator of this agitation among the clergy, Blyden was condemned by the Bishop Cheetham, the head of the CMS, as "the great source of evil who had dwelt upon the race issue and had initiated a strong and virulent anti-white feeling" (50, p. 406). Nevertheless, in his newspaper,
Blyden continued to campaign on behalf of a West African university and the black race generally.

The feelings generated by the discussion of Blyden's ideas prompted the CMS home office to invite Johnson, who, according to Cheetham, was the champion of the native pastors, to London in 1873 (50, p. 406). However, since the CMS could not fulfill Johnson and his colleagues' demand for a university, the pastors requested the organization, as an alternative, to convert the Fourah Bay Institute into a center for higher learning in West Africa (50, p. 409). This request was supported by Grant, a statesman and the influential figure in church affairs. Grant wanted the Fourah Bay facility to be established as a center of higher studies open to all, irrespective of religious background. Cheetham, who feared the possible success of his rival Blyden in founding a "godless" university, also supported Grant's proposal and suggested to the CMS in 1874 that the scope of the Fourah Bay Institute be extended (31, p. 505). Consequently, in 1875 the college at Fourah Bay was opened to any student of good behavior who passed the matriculation examination. Like Codrington College in Barbados, it became affiliated with Durham University on February 1, 1876.

After his failure to persuade the Sierra Leonean government to establish a university and also to obtain a teaching post at Fourah Bay (Cheetham falsely alleged that
his rival had committed adultery to keep him out of the college), Blyden returned to Liberia. There he held a number of posts and became the President of Liberia College in 1881. Twenty-five years later, he and Johnson spearheaded the demand for another higher educational institution, the Training College and Industrial Institute in Lagos (3).

James Ephraim Casely Hayford

After Blyden, the demand for a university and torch of nationalism lit by the descendants of slaves were handed over to other West African natives, including James Hayford. Hayford was born on September 3, 1866, in Cape Coast to the Rev. J de Graft Hayford, a clerical intellectual, a patriot, and the founding member of the Fanti Confederation in 1867. The younger Hayford obtained his primary education and secondary education in Cape Coast and Sierra Leone, respectively, before traveling to England to study Law (44). Along with John Mensah Sarbah, Hayford played a leading role in nationalist activities in the Gold Coast in the late Nineteenth and early Twentieth Centuries, continuing the Blyden tradition and transmitting it to Azikiwe.

Hayford's nationalistic sentiment was expressed in his book Ethiopia Unbound. Like Horton and Blyden, Hayford tried to place his fellow Negroes on a par with Europeans. In his book he tried to prove to the world that Africa had
nothing to be ashamed of in its place among the nations of the earth. In one of the main chapters of his *Ethiopia Unbound* he told the following allegory,

At the dawn of the twentieth century, men of light and learning both in Europe and in America, had not yet made up their minds as to what place to assign to the spiritual aspirations of the black man; ... the Nations were casting about for an answer to the wail which went up from the heart of the oppressed for opportunity. And yet it was at best an impotent cry. For there has never lived a people worth writing about who have not shaped ... a destiny for themselves, or carved out their own opportunity. Before this time, however, it had been discovered that the black man was not necessarily the missing link between man and ape. It had even been granted that in intellectual endowments he had nothing to be ashamed of in an open competition with the Aryan or any other type. He was anatomically perfect, adaptive and adaptable to any and every sphere of the struggle for life. Sociologically he had succeeded in recording upon contemporary history a conception of family life unknown to western ideas...

And there were sons of God, among them, men whom the Gods visited as of yore; for ... three continents were ringing with the names of men like Du Bois, Booker T. Washington, Blyden, Dunbar, Coleridge Taylor and others—men who had distinguished themselves in the fields of activity and intellectuality—and it was by no means an uncommon thing to meet in the universities of Europe and America the sons of Ethiopia in the quest of the golden tree of knowledge (38, pp. 1-3).

As a great friend and admirer of Blyden, Hayford devoted another chapter of *Ethiopia Unbound* to the older man's role in race emancipation, writing,

The claim of Edward Wilmot Blyden to the esteem and regard of all thinking Africans rests not so much upon the special work he has done for any particular people of the African race, as upon the general work he has done for the race as a whole. The work of men like Booker Washington and W. E. Burghart Du Bois is exclusive and provincial in a sense. The work of Edward Wilmot Blyden is universal, covering the entire race and the entire race problem ... While Booker T. Washington seeks to promote the material advancement of
the black man in the United States, and W. E. Burghart Du Bois his social enfranchisement, amid surroundings and in an atmosphere uncongenial to racial development, Blyden has sought for more than a quarter of a century to reveal everywhere the African unto himself; to fix his attention upon original ideas and conceptions as to his place in the economy of the world; to point out his work as a race among races of men; (and) lastly and most importantly to lead him back to self-respect... He is the greatest living exponent of the true spirit of African nationality and manhood. In the Afro-American school of thought a black man is seeking intellectually and materially to show himself a man, along the lines of progress of the white man. In the African school of thought represented by Dr. Blyden the black man is engaged upon a sublimer task, namely, the discovery of his true place in creation upon natural and rational lines... The great influence of Dr. Blyden over the rising thinking youth of the race, lies in the fact that he has revealed in his writings and utterances the true motive power which shall carry the race from victory to victory (38, pp. 163-165).

Like Blyden, Hayford denounced Western education for "denationalizing" Africans and making them slaves to foreign ways of life and thought (38, pp. 192-194). In answer to the question of how West Africans could be well trained and still preserve their national identity and race instinct, Hayford said that he would

1. Found a national university, because a people cannot be educated unless there is a suitable training ground for them;

2. As a precautionary measure, place the university in the hinterland, far beyond the reach of Europeanized coastal influence;

3. Establish chairs of History (universal history, with particular reference to the part that Ethiopia--that
is, the Negro race—has played in the affairs of the world, and emphasizing the fact that Africa was the cradle of the world's philosophical systems and the nursing mother of its religions) and African languages (Fanti, Hausa and Yoruba).

Hayford's purpose for founding such a university was threefold:

1. To create a means of revising erroneous current ideas regarding the African,

2. To raise the African in self-respect, and

3. To make the African an efficient co-worker in the uplifting of man to nobler effort (38, p. 195).

Hayford further amplified his sentiments concerning a West African university by describing the good work achieved by the mythical Mfantsipim National University at Cape Coast.

Upon the opening of the National University, Kwamankrah gave up newspaper work and joined the University staff. He was foremost in bringing forward schemes to prevent the work of the University becoming a mere foreign imitation. He kept constantly before the Committee... the fact that no people could despise its own language, customs, and institutions and hope to avoid national death.... It was recognized that the best part of the teaching must be done in the people's own language and soon several textbooks of known authority had, with the kind permission of the authors and publishers, been translated into Fanti.... The scheme... involved the turning out of efficient teachers, and as the University was affiliated to that of London and in working correspondence with some of the best institutions in Japan, England, Germany, and America, the work done was thorough (38, p. 17).

Hayford used the Mfantsipim National University and African National University as an inspiration for his proposed
university, an institution that would be thoroughly conscious of and adapted to its environment while maintaining an international standard.

Hayford's long campaign began in 1911 and reached its climax in March, 1920, at the first conference of the Congress of British West Africa in Accra. This conference, which lasted for more than two weeks was attended by representatives from the Gold Coast, Sierra Leone, Nigeria, and Gambia (61). They deliberated on eleven subjects, introduced by a different speaker as indicated below (61, p. 39).

**GOLD COAST**
- J. E. Casely Hayford: Legislative (including municipal) reforms and granting of franchise
- W. E. G. Sekyi: Education, with particular reference to a West African University
- A. Sawyer: Judicial reforms
- Dr. F. V. Nanka-Bruce: West African Press Union
- H. Van Hien: The inauguration of the congress of Africans of British West Africa; representation of West African views

**SIERRA LEONE**
- F. V. Dove: Alien problems
- L. E. M'Carthy: Commercial enterprise
- Dr. H. C. Bankole-Bright: Sanitary and medical problems

**NIGERIA**
- Patriarch J. G. Campbell: The policy of the government in relation to the land question

**GAMBIA**
- The right of the people to self-determination
By the end of the conference, resolutions had been formulated on each of these topics, but only those on legislative reforms and the African University are relevant to the purpose of this study. The resolutions for the former topic include the following:

... in the opinion of this Conference the time has come for a change in the Constitutions of the Several British West African Colonies, so as to give the people an effective voice in their affairs both in the Legislative and Municipal Governments. . . . That this conference recommends a constitution on the following lines:

1. An Executive Council as at present composed
2. A Legislative Council composed of representatives of whom one-half shall be nominated by the Crown and the other half elected by the people, to deal with Legislation generally.
3. A House of Assembly, composed of members of the Legislative Council together with six financial members elected by the people (59, p. 1).

With particular reference to a West African University, seven resolutions summarizing the points made earlier by Horton, Blyden, and Hayford were passed.

1. That this Conference is of the opinion that the system of Education best suited to the needs and conditions of the various British West African peoples under British influence is one which whilst enabling students to attain the highest proficiency in the many departments of learning, will least interfere with the development by the student of a proper spirit of reverence for indigenous institutions and modes of life not opposed to equity and good conscience.

2. That in the opinion of this Conference the time has come to found a British West African University on such lines as would preserve in the students a sense of African Nationality, and therefore recommend that all existing Secondary Schools throughout West Africa, or those about to be formed, should promote a course of training that shall best attain the end in view.
3. That with this object in view it recommends that the different Boards of Education of each Colony should admit ... African Educationalists capable of contributing practical suggestions, and that in the submission of such suggestions they be guided by the experience of such communities as Japan which have encountered similar problems to those of West African communities.

4. That besides existing Secondary Schools the conference recommends each section of it to promote a scheme in each Colony whereby sound Secondary Education on national lines supported by the people may be promoted, and which shall form a further nucleus for the formation of the proposed British West African University.

5. That compulsory Education throughout the British West African Colonies be introduced by law, and that the standard of both the Primary and the Secondary Schools be uniformly raised to meet the standard of the University.

6. That the Education Schemes of the Governments of the several British West African Dependencies be considered and incorporated in the scheme and given as far as practicable a more national tone by cooperation between the Educationists controlling the working of the scheme and such experienced educated Africans capable of suggesting lines of African National evolution.

7. That each British West African Colony promotes a National Educational Fund so as to ensure the development of a national Education Scheme, which may be supplemented by Government subsidies when in operation (59, p. 3).

Following the conference a delegation from the Congress of British West Africa was sent to London in 1920 to present a petition in a memorandum form to King George V, in which no. 25 read,

That your Petitioners desire the establishment of a British West African University, and are prepared to promote the necessary funds for its establishment supported by Government subsidies (54, p. 25).

Campbell (21) states that the British government rejected
the delegation's petition for the establishment of a university in West Africa on the following grounds.

1. The intelligentsia—which the congress claimed to be, according to Nana Ofori Atta—was not representative of the native chiefs and people.

2. Some of the important educated people of West Africa were absent.

3. West African governors were not taken into confidence.

4. European elements were ignored.

5. The Congress asked for dominion-self government.

Apart from its general hostility to the Congress, the attitude of the British government toward the West African demand for a university was summed up by Frederic Lugard, who attacked the Congress in his *The Dual Mandate in Tropical Africa* stating,

"The African progressives who lightly say that 'the time has come to found a West African University on time lines of African nationality' do not indicate a single donation from the wealthy member of their community towards its realization (48, p. 456)."

Ashby cites three causes for the British government's resistance to the establishment of a university in West Africa.

1. The pressure for a university was not consistently supported by the Africans themselves since Horton, Blyden and Hayford were ahead of their time. The majority of the people were at first indifferent to education, and some chiefs and
hereditary rulers, protected by the British device of indirect rule, saw in education—and even in incipient African nationalism—a threat to their power.

2. It was British policy to leave education in Africa to the private enterprise of missionaries or to the budgets of colonial governments, but the former were too preoccupied with their task of combining schooling with proselytization and the latter too impoverished to devote funds or time to higher education.

3. British officials at Whitehall and in Africa operated on the erroneous assumption that it would be useless to build a university except on the foundation of a sound system of secondary school, despite the fact that they well knew that the universities of Oxford and Cambridge had flourished for centuries before a sound system of secondary schools was established in England (2, p. 15). In 1923, however, during the Governorship of Guggisburg, Hayford's demands resulted in the establishment of Achimota College, which was to train students from kindergarten to university level and became affiliated with the University of London in 1931.

In 1929, shortly before his death, during his Presidential address to the Fourth National British West African Congress in Lagos, Hayford stressed the advantages of schools under local rather than expatriate management.
We are grateful to the Missionary bodies for what they have done in the past in the matter of African education. We are also grateful to the Government. But it is obvious that we cannot forever remain babes and sucklings and yet complain when our destiny is being decided for us by others. History tells us how other peoples have risen to nationhood, to economic security and power. We must tread the same path if we would see salvation as a people; and that path is primarily educational. We have our ideals; we have our interests to safeguard; we have our line of evolution, and we cannot afford to leave them in the hands of others to manipulate them for us. There must be an educational awakening throughout West Africa greater than at any time in African history, and when this pentecost breaks in upon us, we shall begin to tread the sure path to national emancipation (74, pp. 89-90).

Benjamin Nnamdi Azikiwe

The early demands for the establishment of universities in British West Africa were made by non-Nigerians. According to Okafor, prior to the 1920s, nationalist loyalties were to West Africa, Africa, and the Negro race. At the start of the Twentieth Century, however, came Benjamin Azikiwe, born at Zungeru, Northern Nigeria, to Ibo parents in 1904. Azikiwe obtained his secondary education in the Hope Wadell Institute at Calabar, and the Methodist High School at Lagos. Following a short period as a clerk in the Treasury office in Lagos, he left for the United States and enrolled in Lincoln University in Pennsylvania in 1925. After obtaining the B. A. degree in 1931, he returned to West Africa in 1934 and worked in Accra as editor of the Morning Post for three years.
In 1937, Azikiwe returned to Nigeria. There he immediately entered politics and became the first Nigerian Governor-General for independent Nigeria in 1961 and the subsequent President of the Federal Republic of Nigeria on January 16, 1966 (60). He made contributions to Nigerian life in the fields of politics, journalism, banking, sports and education, but most important, for the purpose of this study, is the interaction between his nationalism and the course of university development in Nigeria and West Africa as a whole.

1. Azikiwe's contribution to nationalistic activities seems to have centered around a determination to overthrow what he called "imperialism" (6).

2. He brought a new militancy and dynamism hitherto to West African politics. During the fifteen year period 1934 to 1949, Azikiwe was undoubtedly the most important and celebrated nationalist leader on the West Coast of Africa (22). Whereas Horton concerned himself with proving the non-inferiority of Negros compared to Europeans, Azikiwe assumed that the two groups were equal and that therefore no nation had the right to assert itself over the other (62).

3. His writings and speeches on educational matters were numerous. While at Lincoln University, he described the social, political and economic origins of imperialism in an article entitled "Ethics of Colonial Imperialism" (6),
and defended Liberia against Euro-American writers who,

... delighted themselves in seeing chaos, disorder, hopeless anarchy and failure of the Liberian "Experiment" whenever her case was before the bar of international opinion.

... but I submit... that eighty four years of de jure existence are inadequate to pronounce definitely the success or failure of any political venture (7, pp. 46-47).

Azikiwe's earliest writings were directed toward the "New" or "Renascent" African. In his book Renascent Africa (8) he characterized the new Africans as existing in a transitional stage. They were articulate, they refused to view their future passively, and, above all, they were destined to usher forth the New Africa. Azikiwe's philosophy of the New African had five bases:

1. Spiritual balance,
2. Social regeneration,
3. Economic determination,
4. Mental emancipation, and

His discussions on education were based on the last two of these issues. Like Blyden and Hayford, Azikiwe founded his education philosophy on the emancipation of the Negro mind.

This mental emancipation includes education of the sort which should teach African youth to have faith in his ability; to believe that he is the equal of the people of other races of mankind, mentally and physically; to look at no man as his superior simply because that man comes from the Antarctic or Arctic regions. It means that the Renascent African must be rid of the inferiority complex and all the trappings of hat-in-the-hand Uncle Tomism.
Educate the Renascent African to be a man. Tell him that he has made definite contributions to history . . . that while Oxford and Cambridge were in their inchoate stages, the University of Sankore in Timbuctoo welcomed 'scholars and learned men from all over the Moslem world . . .' (8, p. 9).

Stressing the importance of the mental emancipation, Azikiwe noted that the education of Africans up to his time was anachronistic, had prepared Africans for life in a stagnant and unprogressive social order, and had encouraged Africans to cultivate false values. It lacked "moral stability," weakened Africans, and was utterly useless as a preparation for leadership. In other words, Africans had been mis-educated, they needed mental emancipation to be reeducated to the real needs of the Renascent African (8).

With regard to the question of national resurgence, Azikiwe stated that African philosophy had placed great emphasis on material elements and had neglected the spiritual and the intellectual. This emphasis, in Azikiwe's view, was mistaken, for the greatness of both individuals and nations lies not only in material possessions but in spiritual and intellectual qualities and achievements.

Speaking at one of his old schools, the Methodist Boy's High School in Lagos, in 1934, Azikiwe emphasized that Scholarship is coterminous with social progress. It is the scholar who makes or unmakes society. He may not be appreciated by his generation or even by generations after him. But time offers rewards to scholars, who lay the foundations for the society of tomorrow, by immortalizing them in human history . . . Africans need to be scholars. We need to be creative. We must emulate, not imitate (5, pp. 23-24).
The scholarship and intellectualism advocated by Azikiwe could not be pursued except in an indigenous university but there were no such universities in Africa. Azikiwe lamented this state of affairs, stating,

When I consider the fact that throughout the continent of Africa there is not an indigenous university sustained through African initiative, I am in a position to realize how most of the problems of Africa today are due to the intellectual poverty of Africans.

Had African Universities been maintained at their expense, they could have had their curricula filled with important divisions of knowledge which could have hastened their intellectual emancipation (8, pp. 144–145).

Not only would a university emancipate the minds of Renascent Africans, it would uplift them and help them to shape the new Africa.

Universities have been responsible for shaping the destinies of races, nations, and individuals. They are centers where things material are made to be subservient to things intellectual in all shapes and forms. No matter in what field of learning, at the university there is an aristocracy of mind over matter . . . . The universities of Europe and America have been responsible for the great movements in the national history of these continents.

(But) Black Africa has no university. Black Africa has no intellectual centre where the raw materials of African humanity may be reshaped into leaders in all fields of human endeavour . . .

With a taxation of one shilling per capita throughout British West Africa, an endowment fund of more than twelve million pounds can be raised. This is capable of supporting three or four first-class universities.

Why should African youth depend upon Oxford, Cambridge, Harvard, Yale, the Sorbonne, Berlin, Heidelberg, for intellectual growth. These universities are mirrors which reflect their particular social idiosyncrasies . . .
Give the Renascent African a University . . . and this continent can become overnight, 'A continent of Light' (8, pp. 144-145).

Azikiwe was fortunate to have witnessed the establishment of an institution close to his ideal university during his lifetime in the University of Nigeria, Nsukka, which was founded in 1960. He was privileged to be its chancellor for the first five years of its existence.

The curriculum of Azikiwe's ideal university was to be based on the universal criterion of the efficacy of university education. The curriculum was to be balanced, giving equal emphasis to the classics, the humanities, and the sciences, in contrast to the curricula of the colonial universities that stressed the arts.

The Transplantation of British Universities to the Gold Coast

Despite the many appeals for a university in West Africa, none had been established by the end of World War II, although three institutions of higher education had emerged: the Fourah Bay College, in Sierra Leone established by the CMS as a theological seminary, which later included secular subjects to its curriculum and became affiliated with the University of Durham in 1876; Achimota College in the Gold Coast, which offered courses from kindergarten to first year university and later offered external degree courses in engineering from the University of London; and Yaba Higher College near Lagos, Nigeria,
which offered diploma courses in medicine, engineering, and general studies.

It should be noted that, before the end of World War I, the colonial government, apart from its occasional intervention in and unimaginative control over the appropriation of local revenues to educational purposes, was not consistently involved in education, nor did it show any interest in its development (2, p. 15). However, according to Ashby, this complacent isolationism came to an end in the 1920s, when Burghant Du Bois, an American Negro and a pioneer of African liberty, despite inevitable opposition, held the first Pan-African Congress at Paris in February 1919, and during the post war peace conference called on the allied powers to

establish a code of law for the protection of the natives of Africa, and secure for African education, participation in government and ownership of their land (64, p. 20).

In addition, after World War I, the American missionary bodies working in Africa decided to precede their post war development plans with a thorough inquiry. Thus, after consultation with the British Missionary Societies and the British Colonial Office in 1919, a commission under the chairmanship of T. Jesse-Jones and financed by the Phelp-Stokes Fund, was sent to examine education in Africa in 1920. This million-dollar fund had set up under the will of an American woman, Caroline Phelps Stokes, to be devoted to
advancing the education of Negroes in the United States and Africa (13). Among the members of the commission was Kwagyir Aggrey of the Gold Coast, who was then teaching and pursuing advanced studies at the Columbia University; his participation in the commission afforded him the opportunity to revisit his native land (78).

The commission visited West Africa in 1920 and later toured South and East Africa as well. Among its observations about the schools in Africa among others was that, "they were out of touch with the life of the community and their curriculum was too bookish" (65). Nevertheless, in their report, the Commission members stressed the importance of bringing the rest of the community in line with what was being taught in the schools, especially in the areas of hygiene, social welfare, and community development. As a follow-up in 1920, Oman, the Director of Education of the Gold Coast, visited Negro institutions in America, including Hampton College and the Tuskegee Institute, where he was shocked by the manner in which education was adapted to local needs and by the success of co-education.

Following the commission's investigation, the missionaries insisted that the British government declare its policy for education in Africa. As usual, the government responded by creating a committee—the British Advisory Committee on Native Education in Tropical Africa—which was established in 1923 and met for the first time in 1924. Its
first pronouncement, published as a White Paper in 1925, was described by Ashby (2) as a definitive statement of British policy towards education in Africa.

'Education'... should be adapted to the mentality, aptitudes, occupations and traditions of the various peoples, conserving as far as possible all sound healthy elements in the fabric of their social life (27).

Ashby (2) regards this pronouncement as utopian because it was a far cry from reality.

For the first ten years of its existence, the committee paid no attention to higher education or to universities in the colonies, but in 1933, one of its most imaginative and experienced members, James Currie, who had been the director of education in the Sudan, produced a brief report making an urgent plea for the founding of universities in tropical Africa. Currie's report, which was received with enthusiasm by the committee and described as full of vision, called for "an immediate and publicly announced program of university development, otherwise enlightened African opinion would be alienated and British prestige in Africa would be damaged" (2, p. 17). Ultimately, the report was endorsed by the colonial office and circulated to all of the governors in East and West Africa for their reactions. Unfortunately, however, the impetus generated by Currie's clear and vigorous proposals was destroyed by the governors, who, due to their indifference to the colonies took about three years to respond to the report (39). Finally, in 1939 during the West
Africa Governor's Conference in Lagos, they reached an agreement on a long-term project to have a West African University which for some time would be in affiliation with a British university until it matures into a full university to grant its own degrees (2, p. 18).

With the outbreak of World War II, the plans for establishing a university in West Africa were once again paralyzed, but, despite the threat of bombing and invasion, the advisory committee continued its meetings, and by 1940 another fresh and vigorous policy for higher education overseas was initiated by J. H. Channon, a member of the advisory committee and a professor of biochemistry. In his memorandum, he eloquently appealed for the establishment of colonial universities to equip the countries of the Commonwealth for independence (3, p. 19). At his request, two commissions, named after their chairmen, were appointed in July, 1943 to continue preparations for the establishment of universities in West Africa. There was an overlap of membership in the two commissions, and they worked together. The purpose of the Asquith Commission was to "enquire at large into higher education in the British Colonies," while the Elliot Commission's task was to make recommendations concerning the special problems of higher education in West Africa.
At long last, following the reports of the two commissions in 1945, the British government issued a policy for higher education in the colonies which stated:

Colonial universities were to begin as most of the provincial universities in England began: "as university colleges" which would be transmitted into universities when they acquired charters to grant their own degrees. From the start they were to be self-governing societies, demanding from their students the same entry-standard as is demanded by London or Cambridge; following curricula which might vary in detail but must not vary in principle from the curricula of the University of London; tested by examinations approved by London and leading to London degrees awarded on the recommendation of London external examiners. Concerning their social function, colonial universities were to be completely residential and their prime purpose was to produce men and women with the standards of public service and capacity for leadership which self-rule requires. In short, they were, as in England, to nurture an elite (71, p. 20).

In order for the new university colleges to gain international recognition, the Asquith Commission recommended that they set and maintain high academic standards through the assistance of two British institutions, the Inter-University Council for Higher Education in the Colonies and the University of London (20). The Inter-University Council was established in 1945 to replace the old advisory committee. It formulated policy, advised the university colleges on all matters relating to higher education in the British colonies, helped the colleges to obtain an academic staff of a suitable quality that would aid them in maintaining the high standards of British universities and assisted college officials in obtaining funds from Britain (20).
As described in Chapter I, the University of London established a "special relationship" with the newly formed university colleges in the colonies, including the Gold Coast, Sudan, and Nigeria. Under this system, the university colleges were allowed to adapt syllabi to local needs and to offer courses in line with the external degree examinations of the University of London without lowering the value of the degree awarded. The writing of examination questions and the marking of examination papers were done by both local and London examiners. The Asquith Report, published in 1945, became Britain's blueprint, policy, and doctrine for exporting universities to the colonies, and university colleges in Africa became known as Asquith colleges. Instead of being a convenient working hypothesis, however, the doctrine hardened into a dogma, resistant to change and criticism, and operated on an erroneous assumption that a "university system appropriate for Europeans brought up in London, Manchester, and Hull was equally appropriate for Africans brought up in Lagos, Kumasi, and Kampala" (2). According to Ashby (2), although the Asquith policy provided for some adaptations, encouraged changes in syllabi to suit African conditions, and stressed the importance of research into African languages and cultures, it insisted on the fundamental pattern of British civic universities including their constitution, standards, and curricula. Due to the strong pressure for a university in
Africa, the Asquith report was published, and the policy was implemented immediately. The British government provided funds while educational British institutions appointed energetic and creative Englishmen to serve as principals and the nucleus of their academic staffs.

As described by Ashby (2), the pioneers of the new university colleges in Africa faced a formidable task, for they had to do much more than simply establish the colleges. Towns also had to be built for the institutions since their sites were in uncleared bush areas some distance from the sites. The construction of roads; houses for staff and student residence halls; drainage, water, electrical, and transportation systems; post offices; laundries; schools; and even cemeteries became the responsibility of academic administrators. The first professors had to establish standards of teaching that would qualify students to work for London degrees in subjects already offered in the London syllabus. The pioneers adapted the pattern of an English university for the following reasons.

1. Expatriate teachers had no model to follow.
2. Africans wanted a replica of the British university at its best.
3. African intellectuals educated in London, Cambridge, or Manchester would have resisted any softening of standards probably meant to meet the standards of the people, any
substitution of easier options to facilitate learning, and any cheapened version of higher education.

For several years, construction continued, student enrollment increased, the machinery of administration was assembled, and the university college became an accepted feature of West African society. The colleges perpetuated the ostentatious image of British academic life, with gowns, high tables, prayers read in Latin by a scholar, and assembly in combination rooms after dinner. This imported pattern was not just a veneer but, rather, penetrated the constitution, the curricular standards, and the social functions, of the new colleges. A reaction against some of this pretentious elegance, however, took place after the Kumari College of Technology where students chose to wear national dress instead of academic gowns.

The Establishment of Ghana's Three Present-Day Universities

The University of Ghana

The response to the establishment of a university in Ghana was initially problematic since there was a difference in opinion among the members of the Elliot Commission, which was responsible for high education in West Africa. The majority of the committee members supported the idea of a university for each British territory, but the minority favored one central West African University located in
Ibadan, with territorial colleges in Nigeria, Sierra Leone, and the Gold Coast. The minority view was based on the fear that it might not be possible to find enough staff, students, or money for a college in each territory (53, p. 77). Based on these facts, the British government initially accepted the minority report but later had to reconsider its decision due to the reaction of the people of the Gold Coast, who demanded autonomy in their educational endeavor.

In July, 1946, following a resolution moved by Techie-Menson and supported by the African members of the Gold Coast legislature, Governor Alan Burns set up a local Committee under the Chairmanship of Kenneth Bradley, the Colonial Secretary, to advise him as to "the wishes of the people in regard to the further development of higher education in the Gold Coast and also to work out the mechanics and the cost of bringing into reality the idea of a university college in the Gold Coast (26, p. 8). Based upon their findings, which corroborated with Guggisberg's earlier plan to develop the Prince of Wales College and school at Achimota into a College, in their report the committee members stated,

The people are convinced that the post secondary courses at Achimota are capable of development to degree level, and they are not prepared to spend several years in waiting and certainly not in waiting for the establishment of degree courses elsewhere (68, p. 21).

Subsequently, the determination of the people to have their own college was brought to the attention of Creech-Jones,
the political head of the colonial office and a member of the Elliot Commission who reversed his decision to establish the University College of Gold Coast.

After a consensus was reached on establishing the university college, on October 11, 1948, by Government Ordinance, the University College of Gold Coast was established at Achimota as an "autonomous institution under council . . . with control of the general policy and property of the college" (26, p. 7), and the purpose of providing and promoting university education, learning, and research.

With the support of the African members of the Legislative Council, a levy on each load of cocoa during the cocoa season was collected to provide funds for establishment of the college; £7,1813s 4d was collected from this levy and was allocated by the College Council to departments as non-current grants for the purchase of teaching and research equipment. In addition, the government and the Colonial Development Welfare Act gave the sums of £1,000,000 and £400,000, respectively, towards the construction of the first permanent buildings at Legon Hill. Thereafter, the University of Gold Coast was given all the assistance accorded a new university institutions brought into being through the recommendation of the Asquith report. It received help from the Inter-University Council of the United Kingdom in the recruitment of staff and was admitted
into the scheme of "special relationship" with the University of London.

According to Dowuona, the government faced two main problems in the initial establishment of the college. First and foremost, was the acquisition of a suitable temporary home for the institution that would not entail unnecessary expenditure so that all the energy of the administration could be concentrated on providing the first set of buildings and services at the college's permanent location. The second problem was the selection of a site for permanent buildings. The western compound of Achimota College, which had previously been used as the headquarters of the British West African Command during World War II and the West African Inter-Territorial Secretariat and was currently occupied by the Teacher Training Department and the Post-Secondary Department of the college, was finally selected as the temporary site. This site was chosen both because the Post-Secondary Department, whose students were already working for the external degrees from the University of London, was to be the nucleus of the new institution and because the Western compound of Achimota College had land, buildings, and other facilities available. Subsequently, after the consideration of several alternatives, Legon Hill was acquired for the permanent site of the university college. Legon Hill was the center of a five-square-mile area with no vegetation, and the surrounding lowlands was
covered with scrub and grass typical of the Accra plains. However, through the expertise and hard work of Reginald Vaughan, Assistant Curator of Grounds and Gardens and for some time the Assistant Curator of the College's Botanical Garden, the site was pleasantly wooded and covered with trees and shrubs as it is seen today.

The inauguration of the college coincided with intensified pressure for self-government in the Gold Coast, which required the training of local citizens to participate in the effective direction and leadership of their country. Hence, in 1949, the Select Committee of the Legislative Council on Africanization Service urged the immediate expansion of the university college to the limit of the facilities that could be provided in its temporary site at Achimota. Due to the Africanization program, although an enrollment of students by 1960 had already been predicted, as indicated in the 1948-52 School Report (73), the administration of the college was compelled to provide additional temporary building and services as quickly as possible in order to accelerate the rate of enrollment increase. Thus, in addition to a grant of £105,000 for the construction of additional buildings at Achimota to enable the college to operate pending its transfer to Legon, the sum of £261,800 was provided to accommodate the projected expansion. Furthermore, to provide more room at Achimota, the Teacher Training Department was transferred to Kumasi in 1952 to
form the nucleus of the Kumasi College. In appreciation of the workers and teachers of the college, David Balme noted in his 1951-52 year Report that, despite the provision of additional funds by government for the expansion required to meet the needs of the Africanization program, that expansion would not have been possible without the effort of the administration and teaching staff,

Energetic and unorthodox measures had to be taken by the Heads of Departments to obtain equipment in a time of world shortage. The work of building and alterations was pushed ahead urgently, both the works department and outside contractors working overtime and on Sundays for months on end. Most of the new buildings were made of asbestos sheets fastened on prefabricated timber frames, and designed to be dismantled when the college leaves Achimota...

Although the maximum estimated life of these buildings was 10 years, it is interesting to note that, after 25 years, they were still in full use (26, p. 9).

The first phase of development at Legon was planned to provide accommodation for 1,000 students and, ultimately, for 5,000, so buildings were located at strategic points to allow for expansion by filling the open spaces, as is presently being done. In view of this projected enrollment, it is interesting to know that, by 1973, the total enrollment in Ghana's three universities was 5,421, distributed as follows: Legon--2,556, Kumasi--1,765, and Cape Coast--1,100 (26, p. 12).

Although in the planning stages—before the speeding up of development in response to the Africanization program—Balme had estimated in his 1948-52 report that the output of
graduates by 1960 would be 400, by 1960, 577 students had graduated and 343 diplomas and certificates had been awarded (26, p. 12), and these numbers would have been larger if the rate of increase in enrollment in the college's first years (from 90 in 1948 to 480 in 1952) had been maintained. Two factors were responsible for the temporary decrease in enrollment between 1952-53 and 1961-62, after which enrollment began to increase again.

1. Entrance level standards were raised by requiring that two at least of the five or more subjects passed before admission should be at A-level, as was required for direct entry to degree courses in the University of London at about the time the college was admitted into special relationship with it. The University of London had initially granted concessional entry requirements for the college in order to give the colony's schools time to build up their Sixth Form students for the A-level, and the college cooperated with the schools. The establishment of the Sixth Form took a little longer to achieve, and so, during the concessional entry period, the degree courses proper, after preliminary courses of a term or more in the college, lasted for four years rather than the present three-year period.

2. A large number of scholarships was awarded by the Cocoa Marketing Board and the government for the admission of Ghanaian students to overseas universities, for courses
that were available in the college as well as those that were not. Between 1944 and 1950, for example, 508 scholarships were awarded for studies abroad. The courses were varied and included accountancy, agriculture, architecture, dentistry, ecology, pharmacy, domestic science engineering, and other professional fields.

The first principal of the university was David Balme, who arrived in the colony in February, 1948. Prior to his appointment, Balme had been a don at Cambridge University. He also joined the Royal Air Force in World War II, rose to the rank of a Wing Commander, and won the DSO and DFC. During Balme's tenure, he insisted on high standards, academically as well as in the physical development and environment of the college, conditions which were necessary for its healthy evolution as a center of learning and research. In respect, his policies were in accord with the aspiration of the people who wanted nothing but the best possible. He designed the college's machinery of academic government based on procedures at his parent university and experimented with it to disperse academic decision-making widely among committees and to diminish the risk of arbitrariness. Although this system was cumbersome, it allowed greater participation by the academic staff, if not in actual decision-making, at least in the discussions for the Senate to comment and criticize, hopefully rationally.
Throughout Balme's principalship, there was stability at the college and much purposeful academic activity took place; and, despite the disagreements between the staff during the last years of his tenure and much more so thereafter, because the college had developed sufficient strength as a community, it remained a reasonably stable and cohesive body. As an endorsement of this statement, Dr. R. H. Stroughton, who succeeded Balme, made this statement in the first year of his principalship in the College Report of 1957-58.

Dedicated to an idea of scholarship, far-sighted and courageous, Mr. Balme by his vision and singlemindedness of purpose built a college and laid the foundation of a University second to none in Africa (73, p. 5).

It was appropriate, therefore, that the university library, the center of university academic activity was named after Balme. He held the post of principal until his resignation in September, 1957. Before taking over as second principal of the college in that year, Stroughton was a professor of horticulture in the University of Reading, England. He also pressed on with the physical development of the college as fast as funds were made available by the government, and, by the end of the 1959 academic year, all of the teaching departments had moved to Legon, although the departments in the arts and social studies faculties had to be housed in temporary buildings. In addition, a department
of Law and an Institute of African Studies were established during the 1959/60 academic year. During his tenure, Stroughton made it a special point to maintain regular contact with the head of state so as to inform him of developments in the college in a more direct way. In 1961, however, on the eve of the college's attainment of a university status, Stroughton resigned his position because, although he felt assured of government support, he realized later that he had not been taken into confidence.

The college's enrollment of 90 students in 1948/49 had risen to 340 in the year 1951/52 and to 480 in 1952/53, distributed among intermediate, general, and honors/special degree courses in 15 academic departments. By 1961/62, enrollment had risen to 682 in 23 departments in addition to Institutes of Education, Extramural Studies, and African Studies and a Postgraduate Engineering Research Unit, which was later dissolved. By the end of the institution's years as a university college, on September 30, 1961, it had awarded 1,110 degrees and certificates: 725 degrees, 81 postgraduate and 9 Associate Certificates in Education, and 55 other certificates.

For the first thirteen years of its existence, as previously stated, the University College of Gold Coast was guided and controlled by the Inter-University Council of the United Kingdom and the University of London. It became the
University College of Ghana on March 6, 1957, after the colony gained its independence from Britain. Upon reaching maturity, in 1960, the institution's council requested the Ghanaian government to enact legislation to convert the university college into a full university with the power to award its own degrees. Hence, by an Act of Parliament, the University College of Ghana became the University of Ghana on October 1, 1961, with Nana Kobina Nketsia as the interim vice-chancellor until Connor Cruise O'Brien was appointed as substantive vice-chancellor (81).

Assessing the immediate benefits afforded by the university college in the early days of its establishment, McWilliam notes that the Cambridge School Certificate was no longer regarded as the height of academic achievement (53). Through its Institute of Education, the college has a direct effect on the rest of the educational system, by preparing its graduates and other teachers for work in secondary schools and training colleges as well as in educational administration. In addition, many people outside the college attended lectures organized by its Extramural Department, and an even wider audience profited from the articles and informed comment of tutors from the college in the press and on the radio.
The University of Science and Technology

The University of Science and Technology originated from the Kumasi College of Technology, which came into existence on January 22, 1952, as a result of the Government Ordinance of October 6, 1951 (20). Commenting on some of the factors that contributed to the establishment of this college, McWilliam notes that, before the 20th Century, with the exception of the trade instruction given at the Basel Mission, technical education was completely neglected in the Gold Coast (53, p. 43). In 1909, however, based on the recommendation of the Educationists Committee during the tenure of Governor Rodgers, the government took a direct interest in technical education and established the Accra Government Technical School. Students were trained here to take charge of the workshops of the four agricultural stations previously established by the government at Aburi, Asuantsi, Kumasi, and Tarkwa (33). Later the school was moved to new buildings at Takoradi and became the colony's first secondary technical school (53, p. 43). Subsequently, in 1922, Governor Guggisburg greatly expanded technical education in Gold Coast by opening four government trade schools at Yendi, which later moved to Tamale, Mampong, Kibi, and Asuansi (33, p. 154). Their purpose was to meet the growing need for artists who had attained reasonable general educational standards. Also in 1922, according to
Graham (33), technical classes were attached to the Gold Coast Railway to augment the training students received in engineering workshop practice and practical mathematics.

Although the demand for technical education had always been high, McWilliam (53) observes that its expansion had been relatively slow due to the following handicaps.

1. The missionaries who spearheaded educational development in the Gold Coast did not have enough money to buy the equipment needed for technical education.

2. Before the Twentieth Century, there were fewer opportunities for making use of a technical education than now exist because the country had no manufacturers and very little machine equipment.

3. The examples set by Europeans did not enhance the prestige of technical education because almost all of the prosperous ones were seen to be doing non-technical work in offices.

4. Consensus among educational planners was absent concerning the importance of technical education. This was true in most colonial countries, where school children regarded technical training fit only for persons who were not fortunate or clever enough to enter an academic course of study or for lawbreakers and were sent to the Admiral Industrial School at Swedru (57, p. 79).
5. The government failed to carry through any scheme for training technical teachers. This gap was eventually filled in 1960, when a Technical Teachers Training College was established in Kumasi under the United Kingdom and Ghana Technical Assistance Scheme.

In the course of time, the people's somewhat unfavorable attitude toward technical education changed as they observed the use of modern methods in the construction of roads and other communication systems and as information about the technological achievements of other countries became more widespread. Thus, in order to train the diverse personnel required for the economic, technological, educational, and social development of the country, the government established the Kumasi College of Technology by Government Ordinance with grants from the United Kingdom Funds under the Colonial Development and Welfare Acts of 1945 and later years (33, p. 177). A principal was appointed in 1951, and a number of semi-permanent buildings were completed in that year at Ayi ja, a suburb of Kumasi, to accommodate the first component of the college. It opened officially on January 22, 1952, with 200 students who were transferred from the Teacher Training Department of the Achimota College to form the nucleus of this institution (20).
In addition to the Teacher Training Department, the first group of courses introduced at the college included those offered by the School of Engineering and the Department of Commerce, which also admitted their first students in 1952. Between 1952 and 1955, the School of Engineering trained students for professional qualifications only, but in the latter year it was accepted into special relationship with the University of London and began to offer courses leading to the University of London’s Bachelor of Engineering degree, as well as various courses leading to examinations of British professional institutions or to college diplomas. In 1953, the college expanded its curriculum by adding a Pharmacy Department, transferred from the Kole Bu Hospital in Accra in January of that year, that offered a two-year program leading to the award of the Pharmacy Board Certificate (20, p. 3). Also in 1953, an Agriculture Department was added to provide a number of ad hoc courses of varying duration from a few terms to three years for the Ministry of Agriculture. A Department of General Studies was instituted to prepare students for the Sixth Form arts and science subjects and to offer instruction in various disciplines requested by other departments. In 1957, the School of Agriculture, Town Planning, and Building was established to offer professional
courses in these areas. Its first students were enrolled in January, 1958.

In that year, due to the college's rapid expansion, it was decided to make it a purely scientific and technological institution. Therefore, the Teacher Training Department, with the exception of the Art School, was transferred to Winneba Training College, and the Commerce Department was transferred to Achimota in 1959 and later became the nucleus of the present school of Administration at the University of Ghana (20).

The process of the college's accession to university status began in December, 1960, to reorganize and expand higher education in Ghana (32, p. 169). Thus, in 1961, having already proposed to transform the country's two existing institutions of higher education into independent and separate universities and to establish a new university institution at Cape Coast, the government appointed an International Commission to "advise it on university development in Ghana" (67). In its report, the Commission recommended the establishment of the new institution at Cape Coast as a university college in special relationship with the University of Ghana. In a subsequent White Paper, the government responded positively to the Commission's recommendations and stated its intent to implement them by October, 1961 (69). In August of that year, the government
passed legislation to upgrade the two existing university colleges of higher education into separate and independent universities (61), to establish the University College of Cape Coast in special relationship with the University of Ghana (69).

The University College of Cape Coast opened in October, 1962, when it began operations with 155 students in the buildings it inherited from the Osagyefo Teacher Training College (20, p. 5); it was formally inaugurated on December 15, 1962. The college's primary purposes were to produce graduate teachers in art and science subjects for secondary schools, teacher training colleges, polytechnics, and technical institutions in Ghana, and to serve as a national center for research and teaching in education (20, p. 9). The college began with two academic science departments transferred from the Kumasi College of Technology. Two years later, in 1963-64, these departments had developed into faculties, and in the 1964-65 academic year the Institute and Department of Education at the University of Ghana, which had previously provided courses to upgrade practicing teachers and otherwise aid the professional teacher training and curriculum development, was virtually disbanded and transferred to Cape Coast in accordance with directives from the President of Ghana (26). In addition, the Science Research Unit from Kumasi was transferred to
Cape Coast, and in 1964, the college was reconstituted as the University College of Science Education. It reverted to its original name, however—University College of Cape Coast—after the 1966 coup.

In 1966 and 1970, the college began to seek university status by submitting a request through its council to the government of Ghana for the enactment of legislation necessary to make the college a university with the authority to award its own degrees, including honorary degrees, diplomas, certificates, and other academic distinctions. Consequently, in conformity with this proposal, an Act of Parliament on October 1, 1971, transformed the University College of Cape Coast into a full university with the designation of the University of Cape Coast (80). The locations of these three universities are designated by Appendix C on the Map of Ghana.
CHAPTER BIBLIOGRAPHY


30. Foster, Philip, Education and Social Change in Ghana, Chicago, the University of Chicago Press, 1965.


54. Memorandum of the Case of the National Congress of British West Africa for a Memorial Based Upon the Resolutions to be Presented to His Majesty the King Emperor in Council through the Right Honorable the Secretary of State for the Colonies, Petition No. 3, London, Her Majesty's Stationary Office, October 1920.


73. Reports by the Principal of the University College of Gold Coast, 1948-52 and 1957-58, Legon, 1957-1958.


CHAPTER III

PROGRAMS OF STUDY, STUDENT ENROLLMENT, AND OUTPUT PATTERNS

Introduction

This chapter is concerned with reviewing the types of degree, diploma, and certificate programs offered by the various faculties, departments, schools, and institutes of each of the universities in Ghana. This survey is followed by an analysis of the universities' student enrollment and their output patterns.

Background

In the 1950s, only the University College of Gold Coast and the Kumasi College of Technology, both of which originated from Achimota College, provided higher education in the colony. In 1962, the University College of Cape Coast was established and added to Ghana's complement of higher education institutions.

In 1948, the Post-Secondary Department of Achimota College, which formed the nucleus of the newly established University College of Gold Coast, offered intermediate degree courses of the University of London in arts, science, engineering, economics, education and divinity. A Bachelor
of Science Degree was offered in the field of engineering (10, p. 165), but that course of study was discontinued after the inauguration of the university college (7). In planning to establish the institution's first group of departments, the first principal of the University College of Gold Coast, David Balme, stated,

In providing for undergraduate education, the Academic Board has aimed at establishing those Arts and Science departments that are basic to professional training on the one hand, and on the other hand, offer in themselves a complete and satisfactory education for those who seek careers in public administration, school teaching, commerce, industry or other sides of public life . . . . In order to keep the number within bounds, the attempt has been made to select, first, those subjects which are by common agreement indispensable with those which are complementary to them (7, p. 9).

In 1949, the School of African Studies was to be established, comprising Departments of Sociology, Archaeology, and African Languages, but this idea was suspended due to the death in London of Dr. Ida Ward, who was to have headed the African Languages department. Separate and independent Departments of Archaeology and Sociology, however, were established. Research fellowships in Legal Studies, attached to the Department of Sociology, became the forerunner of the department of Law in the 1959/60 academic year, and the work done by students in the Department of Phonetics and by postgraduate students of English studying phonetics resulted in the establishment of the Department of Linguistics and the Language Center.
Likewise, business studies, introduced as part of the economics degree course, became the forerunner of Business Administration courses.

The Department of Extramural Studies, now Institute of Adult Education, which was an operational unit before 1948, became part of the college and was destined to play an extremely useful role in stimulating popular education and serious non-recreational study by groups outside the university. The University College of Gold Coast’s student enrollment in 1948/49 was 90; by 1950, the total had risen to 213, 80 in the Arts, Economics, or Science faculties, 103 reading for Intermediate Examinations, and 30 in the Institute of Education. In 1951/52, enrollment rose to 340 and to 480 in 1952/53, distributed among intermediate, general, and honor degree courses in fifteen academic departments. In the 1961/62 academic year student enrollment rose to 682 and the number of departments to 23, including the Institutes of Education, Extramural Studies, and African Studies and a Postgraduate Engineering Research Unit (later dissolved).

The college was established in 1948, and its first group of graduates, six in number, completed their studies in 1951. By the end of the institution’s period of existence as a university college in special relationship with the University of London on September 30, 1961,
however, it had awarded 1,110 degrees and certificates: 725 degrees and 81 postgraduate and 249 Associate Certificates in Education, together with 55 other certificates (7). After the 1966 military coup in Ghana, the university's enrollment increased sharply, as reflected in numbers of candidates for masters degree programs, a development which also spurred the development of doctoral courses. Another noticeable feature of the university's growth was the extension of academic links and cooperation with a number of institutions overseas, especially in the United States, Canada, and the United Kingdom, which resulted in the exchange of staff, the development of staff in certain departments where help was needed, and the provision of postgraduate training facilities abroad for selected staff and students.

By the 1972/73 academic year, the university had a student population of 2,631 including 233 postgraduate students and 524 others taking diploma or certificate courses of various kinds. There were forty-five academic departments grouped in seven faculties—Agriculture, Art, Law, Medicine, Science, Social Studies, and Administration—in addition to five institutes—African Studies; Adult Education; Statistical, Social, and Economic Research; Journalism and communication; and the Regional Institute for Population Studies—three Agricultural Research Stations at Nungua, Kpong and Kade (8, p. 12).
As shown in Table IV, the University of Ghana had awarded more than 7,500 degrees, diplomas, and certificates by the end of 1973.

**TABLE IV**

DEGREES, DIPLOMAS AND CERTIFICATES AWARDED BY THE UNIVERSITY OF GHANA, 1951-1973*

<table>
<thead>
<tr>
<th></th>
<th>First Degrees</th>
<th>Post-Graduate Degrees</th>
<th>Diplomas and Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration**</td>
<td>415</td>
<td>--</td>
<td>173</td>
</tr>
<tr>
<td>Agriculture</td>
<td>207</td>
<td>13</td>
<td>166</td>
</tr>
<tr>
<td>Humanities**</td>
<td>1,821</td>
<td>56</td>
<td>938</td>
</tr>
<tr>
<td>Law</td>
<td>471</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Medicine</td>
<td>193</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Science</td>
<td>851</td>
<td>62</td>
<td>201</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1,665</td>
<td>18</td>
<td>285</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,623</td>
<td>149</td>
<td>1,763***</td>
</tr>
</tbody>
</table>


**The Administration and Humanities courses include business administration and education, respectively (8).

***Including Ph.Ds.

The University of Science and Technology, formerly the Kumari College of Technology, opened in 1952 with courses offered by the Teachers Training Department of Achimota College. In the same year the new institution established diploma courses in civil, mechanical, and electrical
engineering. In 1953, Departments of Pharmacy, Commerce and Agriculture were established in 1958 (5).

In 1955, the college was admitted into special relationship with the University of London and began to offer courses leading to the bachelor's degree in engineering. It also offered courses leading to the examinations of British professional institutions and to college diplomas as well as courses leading to the Higher School Certificate for preliminary degree students in the Department of General Studies. In 1958, the Teacher Training Department, with the exception of the Art School, moved to Winneba, and the commerce department was moved to Achimota in 1959 (7).

By 1960, enrollment in the University College of Ghana and the Kumari College of Technology were 670 and 500, respectively. Dowuona (8) attributes the low increase in enrollment in the two institutions to two factors. First, the secondary schools were not producing enough students qualified for higher education, and, second, there were some duplications of course offerings (e.g., agriculture) in the two schools. Consequently, in December, 1960, the Ghanaian government, being deeply dissatisfied with the contributions of the two colleges towards national goals, took major steps to reorganize and expand higher education, and to eliminate course duplications so as to achieve a more economic and
viable use of the country's available resources. Thus, the government, which had already proposed transforming the two institutions into a single and independent University of Ghana and also establishing a new higher education institution at Cape Coast, appointed an international commission to advise it on university education in Ghana (12). In its report, the commission recommended that Ghana's two existing institutions of higher education be reconstituted as separate and independent universities, each awarding its own degrees and that the new institution at Cape Coast be established as a university college in special relationship with the University of Ghana.

In conformity with these recommendations, the government passed legislation in 1961 that 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 and also established the University College of Cape Coast, which was opened in October, 1962 (14).

The University of Ghana began with four faculties--Arts, Social Studies, Science, Agriculture--and three institutes--Education, Extramural Studies, and African Studies. In 1963, the Department of Law became a faculty, the College of Administration at Achimota was incorporated into the university, and the Institute of Statistics
was established. At the Kwame Nkrumah University of Science and Technology, each of the former departments or schools became faculties and a new Faculty of Science was established. As time passed, courses and departments were added to both institutions, but, after gaining university status in 1961, they began to phase out all the old courses leading to the University of London degrees and examinations of British professional institutions and some old diploma courses and introduced new courses leading to their own degrees, diplomas, and certificates as well as new postgraduate degree and diploma courses (9).

The University of Cape Coast opened in October, 1962, with two academic departments, the Department of Arts and the Department of Science, both of which had been transferred from the University of Science and Technology. These departments developed into two faculties in the second year of the college's existence, 1963-64. In 1964, by presidential command, each of Ghana's three universities was assigned specific areas of study. Thus, the University of Ghana became responsible for degree courses in pure science and in the arts; the Kwame Nkrumah University of Science and Technology was assigned responsibility for degree courses in engineering, applied science and technology; and the University College of Cape Coast became responsible for training science teachers for the secondary schools, polytechnics,
technical schools, and teacher training colleges, and for serving as a national center for research and teaching in education (10). The Institute and Department of Education at Legon and the Research Unit at Kumasi were transferred to Cape Coast during the 1964-65 academic year to form the Faculty of Education (5), while courses in pure science and arts at Kumasi and Cape Coast were transferred to the University of Ghana. Beginning in October, 1971, two subjects and single honors degree courses were offered at Cape Coast University in arts, science and education and from 1975-76, the scope of study was widened to include courses in the social sciences and the length of the degree course increased from three years to four (16). At the University of Science and Technology in Kumasi, the former Faculty of Science, including the Departments of Mathematics, Chemistry, Botany, Physics, and Zoology which had been transferred to Cape Coast, were replaced by Departments of Applied Biochemistry, Applied Physics, and Chemical Technology which awarded the Bachelor of Science in Technology degree, and a Department of Science which was to provide the preliminary science courses for the first two years of the degree course.

Explaining the government's action during the congregation of the University of Ghana in March, 1965, the
Minister of Education, Kwaku Boateng, who was also the Chairman of the University Council, asserted,

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 rationalizing 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 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 reclassifying 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 discipline (4, pp. 87-89).

In response to the government's statement, the Vice-Chancellor of the University of Ghana, Connor Cruise O'Brien, on the same occasion stated:

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 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 (21, pp. 103-104).

After the 1966 coup in Ghana, the country's new leaders reversed certain decisions concerning the reorganization of higher education made by the Nkrumah government. At the University of Science and Technology (UST) the two former faculties affected by the reorganization of 1964-65 were restored to their original status, and the College of Art, separated from the university in 1965, once again became a faculty of the university.
The Ghana Medical School, which was an autonomous institution in special relationship with the University of Ghana, was recommended by the Education Review Committee to be made a faculty of that university, while retaining its own separate budget (22, p. 131).

The transfer of the Education Department from Legon to Cape Coast was allowed to stand, but the proposal for the establishment of a new University College of Agriculture was suspended indefinitely (13) because, in the view of the Education Review Committee, a grave disservice to Ghana would have been done if it had been implemented (13). At the government's request, both the University of Ghana and the University of Science and Technology introduced new diploma courses to train much needed middle-level personnel in areas such as agriculture, home science, pharmacy, and statistics.

Faculties, Schools, Departments, Institutes, and Programs of Study

Today, Ghana's three universities, all of which opened with only a handful of students and a few courses and departments, now constitute a complex and well-developed system of higher education in Ghana. Each university has several departments grouped under schools, faculties, and institutes with each headed by a dean or a professor who directs its activities. In addition, each university has a
well-qualified academic and administrative staff, as noted in Appendix D, who assist in administration and the attainment of university goals. Each of the three universities offers programs in a wide range of fields and at five different levels, namely, 1) preliminary; 2) sub-degree diploma and certificate; 3) Bachelor’s; 4) postgraduate diploma certificate; and 5) Master’s and Doctor’s. The three universities and their programs are described below (1; 2; 5; 6; 7; 9; 10; 16; 17; 18; 19; 20).

**The University of Ghana**

The University of Ghana, the largest of Ghana’s universities, has five faculties, two schools (Medicine and Administration), and five Institutes (African Studies, Adult Education, Journalism and Communication, Regional Institute for Population Studies, and Institute of Statistical, Social and Economic Research). The faculties consist of forty-seven departments grouped as follows (6):

**Faculty of Agriculture:** Departments of Management, Animal Science, Crop Science, Home Science and Agricultural Extension

**Faculty of Arts:** Department of Classics, English Linguistics, Modern Languages, Philosophy, and Study of Religions

**Faculty of Law:** Law
Faculty of Science: Departments of Biochemistry, Soils and Crops, Botany, Chemistry, Geology, Mathematics, Nutrition and Food Science, Physics, and Zoology

Faculty of Social Studies: Departments of Archaeology, Economics, Geography, History, Library Studies, Political Science, Post-Basic Nursing, Psychology, and Sociology

School of Medicine: Departments of Anaesthesics, Anatomy, Biochemistry, Chemistry, Pathology, Child Health, Medicine and Therapeutics, Microbiology, Obstetrics and Gynecology, Pharmacology, Physiology, Community Health, Psychiatry, and Surgery.

School of Administration: Departments of Accounting, Business Management, and Public Administration.

The following paragraphs provide further information on the courses offered by the various departments, institutes and faculties of the University of Ghana, as described by Berry (2), George (9), and the Association of Commonwealth Universities (16). At the graduate level, the faculty offers the M. S. Agriculture degree, which may be awarded in
any one of the subjects in which the bachelor's degree was awarded.

At the subdegree level, the Faculty of Agriculture offers two courses designed for mature students from the Ministry of Agriculture. The first, a two-year course leading to the National Diploma in Agriculture in Animal Health or in General Agriculture, is offered for students with a three-year post secondary course in veterinary science at Pong Tamale or the three-year post secondary course at Kwadaso who have passed the entrance examination. The second, a one-year course leading to the Special Diploma in General Agriculture, is open to holders of the School Certificate or equivalent and the diploma from the University of Science and Technology.

The Faculty of Agriculture also provides instruction in home science. It offers a three-year course leading to the B.S. (Home Science) General. About 65 per cent of this course, which was introduced in 1966-67, is devoted to work in physical, biological, and social sciences and the remainder to the applied area of studies. The faculty also offers a two-year subdegree diploma course in Home Science Extension, which was established in 1969-70 to train Ministry of Agriculture home extension agents at the district level.
Agricultural Research Stations.—In addition to its teaching programs, the Faculty of Agriculture operates three Agricultural Research Stations located at Nungua, Kpong, and Kade. In addition to research, the stations provide teaching and practical training to agricultural students, especially during long vacations. The Nungua Research Station, established in 1953, is eight miles from Accra. Its main activities are centered on research in dairy cattle crossbreeding, particularly the development of dairy cattle by crossbreeding of local breeds with others; animal nutrition; veterinary medicine; and pasture improvement (16).

The Kpong station, established in 1954, is fifty miles north of Accra. It extends over 364.5 hectares and was established to conduct research in mechanized irrigation of the black soils (vertisols) of the Accra plains and to provide recommendations leading to integrated development of all potential resources of black soils. It is also operating a pilot irrigation settlement scheme emphasizing rice production. Officers stationed at Kpong include a plant breeder, a soil chemist and a sugar cane agronomist (16).

The Kade station, with an area of 993.5 hectares, is 70 miles northwest of Accra. It was established in 1957 by a grant by the cocoa-Marketing Board. Its main activities are
centered around research in the production of forest zone crops and the agronomy of perennial crop plants (16).

Faculties of Arts and Social Studies.—These offer two types of first degree courses, general and honors. Both offer courses leading to the B. A. General in three subjects or the B. A. Honors in a single major subject or two combined subjects.

In addition to its first and postgraduate degree programs, the Faculty of Arts offers a two-year subdegree-level course for the Licentiate in the Study of Religions, a course of specialization in either Christian or Islamic religion for non-graduate trained teachers or university graduates selected following an entrance examination at various seminars affiliated with the University of Ghana. 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.

The Regional Training Center for Archivists was established in 1974 and functions within the Faculty of Social Studies’ Department of Library and Archival Studies. It offers certificate level training in archives
administration for Anglophone countries in Africa as well as a graduate program in archival studies.

**Faculty of Law.**--The Law Faculty was established in 1961. After initial difficulties, it is now well established and contributes not only to the academic and professional training of lawyers but also to the general progress of legal knowledge and the legal profession in Ghana. The first degree course in law was phased out and replaced in 1965-66 with a three-year program leading to the B.A. in Law. However, to enroll as legal practitioners in Ghana, graduates must take a further two-year professional course, known as the Practical Course in Law, which leads to the Professional Certificate in Law. The course is offered by the faculty of law on behalf of the General Legal Council of Ghana.

**School of Administration.**--The School of Administration offers three-year B.S. in Administration degree courses in business management, public administration, and accounting, as well as the M.B.A. and M.P.A. degrees. The School of Administration also offers two-year subdegree level courses leading to the Diploma in Public Administration, which is preceded by the one-year Elementary Local Government Certificate and one-year Higher Local Government Certificate.
courses. These courses emphasize public administration in Ghana and West Africa.

In 1971-72, due to the demand for middle level accounting personnel by business institutions, the Ghanaian Civil Service, state corporations, and educational institutions and a request from government, the school introduced a two-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.

The school also has a three-year post G.C.E. Ordinary-Level course for the Diploma in Hospital Administration. This diploma and one-year of experience in a hospital constitute the required qualification for appointment as a hospital secretary.

Faculty of Science.—The Faculty of Science offers B.S. degree courses in biochemistry, botany, chemistry, food science, geology, mathematics, nutrition, physics, psychology, and zoology. The faculty gives instruction for the M.S. degree in all of the B.S. degree course areas and in freshwater biology.

School of Medicine.—The Ghana Medical School was established in 1964 as an autonomous institution in special relationship with the University of Ghana. Then, in
October, 1969, it became part of the University with the status of a faculty. Pending the construction of its permanent buildings at Legon, it is still housed at Kole Bu Hospital, where student intake is limited to 60 per year.

A period of six years is usually required to earn the degrees of M.B. (Bachelor of Medicine) and Ch.B. (Bachelor of Surgery). A one-year premedical course is offered at the Legon campus, and a five-year medical course is given at the Kole Bu Teaching Hospital in Accra. Students with satisfactory high G.C.E. A-Level examinations in chemistry, biology, and physics are exempted from the premedical course and take only the five-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 a five-term preclinical course in anatomy, biochemistry, and physiology, leading to the Second Professional Examination for the M.B. and Ch.B. degrees offered in March of each year; a one-term introductory clinical course; and a three-year (ten-term) course of clinical studies at Kole Bu Hospital, Accra, that prepares students for Parts I, II, and III of the final M.B. and Ch.B. examinations. This three-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, and three terms (including
a July-September term) leading to Part II (in pediatrics and obstetrics and gynecology), which is taken in June, at the end of the final year. The holder of the M.B., Ch.B. degrees must also complete one year of a two-year internship before becoming eligible for registration as a medical practitioner.

The Noguchi Memorial Institute is a postgraduate medical research institute donated to Ghana by the Government of Japan. It is situated about two miles south of the university and is the permanent development site of the School of Medicine.

Institute of Statistical, Social, and Economic Research.—This institute, usually referred to as the ISSER, was established in 1969. It originated from the Institute of Statistics, which was founded in 1962 and renamed, enlarged, and reorganized to carry out a broader mission of conducting research, providing advisory services in statistics, and training statisticians. 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 affecting Ghana's development. Its areas of research include factors of agricultural growth and cocoa economics. It also offers both post-graduate and subdegree level
courses in statistics and serves as a West African center for training both middle- and high-level statisticians.

The ISSER now offers two postgraduate courses, a two-year course leading to the M.S. in statistics and a one-year course leading to the Postgraduate Diploma in Applied Statistics. It also gives a subdegree diploma and certificate courses, including one-year nonacademic vocational two subdegree training courses designed primarily for civil servants, which leads to the Certificate in Statistics previously offered by the U.N. Statistical Training Center; this course has been given at the university since 1966. The second course is the one-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.

Computer Science Department.—The Computer Science Department, established in 1973, has an IBM 1130 system, with an IBM 370/115 system on order. It offers graduate diploma courses as well as service courses in computer science for university departments and short training courses for personnel from nearby computer installations. The department also does extensive computer work for the finance office of the university and the ISSER for a wide variety of research projects.
Language Research Center.--The Language Research Center was established in October, 1970, and began its operations in 1971-72. It provides remedial instruction to university students who have difficulties in using the English language effectively, and also offers, through research, various activities to assist other levels of the educational system. Its main emphasis is on remedial and speed reading of English as a second language and the development of Ghanaian languages.

Regional Institute for Population Studies.--The Regional Institute for Population Studies was established jointly by the United Nations and the Government of Ghana in 1972 to promote and strengthen research and training in demographics for students from English-speaking countries in Africa. It offers a graduate diploma course and an M.A. degree course in population studies.

Institute of African Studies.--The Institute of African Studies was established in 1961 to conduct fundamental research in African Languages and literature, arts, history, and society and to organize basic courses in African studies for first-year students at Ghana's three universities. In addition, it provides an interdisciplinary M.A. course in African Studies and various subdegree diploma and
certificate courses in dance, drama, and music through its school of performing arts.

Institute of Adult Education.—The Institute of Adult Education was originally established in 1949 as the Department of Extramural Studies of the University College of Gold Coast. In 1962, it was transformed by Nkrumah into an enlarged Institute of Public Education. After 1966, it became the Institute of Adult Education to undertake the extramural adult educational activities of the University of Ghana. Apart from offering short residential courses and public lectures, it gives part-time courses for working adults at the Accra, Kumasi, Sekondi, Takoradi and Tamale Workers' Colleges and other facilities throughout the country. These have included General Certificate of Education, Ordinary and Advanced Level courses, and non-examinable courses in liberal studies throughout the country; vocational and professional courses at the Workers' Colleges and a few other centers; and part-time courses for the B.A., L.L.B., and B.S. in Administration degrees of the University of Ghana at the Accra Workers' College. An experimental agricultural extension service was inaugurated in the Ho area in 1970-71, along with the Institute's first correspondence education program in the General Certificate of Education. The Institute also has an Adult Learning
Research Unit, established in 1968, which conducts research into its programs and Ghana's adult education needs.

**Volta Basin Research Project.**—The Volta Basin Research Project was initiated by the University of Ghana to conduct research into fields where important changes could be expected as a result of the construction of the Volta Dam, so that cultural material and information that might be lost by the formation of the Volta Lake could be preserved. The University departments most involved in this undertaking have been the Departments of Agriculture, Archaeology, Botany, Study of Religions, and Zoology. Publication of results from the Departments of Archaeology and Study of Religions is now almost complete. The Biology Department's work, however, will continue long after the lake is formed.

**Formal links and exchange with universities abroad.**—The University of Ghana has established ties with Institute of Tropical Agriculture in Prague, Czechoslovakia; Africa College; the Food Research Institute of Stanford University in California; Churchill College at Cambridge; the Faculty of Law at Oxford and the University of Leyden (in Comparative Law); the University of California (Medical School, Danfa project, and Education Abroad Program); University of Guelph (agriculture) and the University of Western Ontario (economics) through the Canadian International Development
Agency; the University of Leeds (departments of biochemistry and geology); the University of Reading (departments of agricultural economics); and the University of Strathclyde (general). Through the cooperation and support of the former Inter-University Council for Higher Education Overseas, and the Ministry of Overseas Developments in the United Kingdom, a number of so-called "home-base" posts were established between departments of the University of Ghana and various university departments in the United Kingdom (7, p. 1325).

Honorary degrees.—The University of Ghana awards the following honorary degrees to distinguished individuals who have made notable contributions to society: Doctor of Literature (D.Lit.); Doctor of Law (L.L.D.); Doctor of Science (D.Sc.); and Doctor of Music (D.Mus.).

The University of Science and Technology

The University of Science and Technology (UST) has eight faculties: Agriculture, Architecture, Art, Engineering, Medicine, Pharmacy, Science and Social Science. In addition, it has three institutes—the Institute of Mining and Mineral Engineering, the Institute of Technical Education, and the Institute of Renewable Natural Resources—and three centers: the Land Administration Research Center, the Technology Consultant Center, and the
Center for Cultural Studies. The University's eight faculties consist of about forty-one departments (6):

Faculty of Agriculture: Agricultural Economics and Farm Management, Agricultural Engineering and Mechanization, Animal Production, and Crop Production and Horticulture;

Faculty of Architecture: Architecture, Building Technology, Planning, and Housing and Planning Research;

Faculty of Art: Painting and Sculpture, Industrial Art, Design and General Art Studies, and Art Education;

Faculty of Engineering: Civil Engineering, Mechanical Engineering, Electrical and Electronic Engineering, and Geodetic Engineering;

Faculty of Medicine: Anaesthesiology, Anatomy, Behavioral Sciences, Child Health, Community Health, Ear, Nose and Throat, Medicine, Microbiology, Molecular Medicine, Obstetrics and Gynecology, Pathology, Radiology and Surgery;

Faculty of Pharmacy: Pharmaceutical Chemistry,
Pharmaceutical Pharmacology, and Pharmacognasy;

Faculty of Science: Biochemistry, Biological Sciences, Chemistry and Chemical Technology, and Mathematics and Physics;


The following, drawn from George (9) and the Commonwealth Universities Yearbook (16), provide further information on the courses offered by each of the UST's faculties, institutes and centers.

**Faculty of Agriculture.**—Similar to its counterpart of Agriculture at the University of Ghana, the Faculty of Agriculture at UST offers a four-year honors degree course in agriculture. In the fourth year, students specialize in one of the following areas: agricultural economics, agricultural engineering, animal husbandry, crop production, horticulture, grassland management, or soil science. The faculty also provides a two-year program leading to the M.S. (Agriculture) degree in horticulture, poultry science, soil science or agronomy and a two-year subdegree diploma course in Tropical Horticulture to train employees of the
government department of parks and gardens and other semi-
governmental agencies.

Faculty of Architecture.--Since the inception of the
UST's Faculty of Architecture in 1958, it has offered
courses not only in architecture but in building technology
and planning as well. It now offers three four-year honors
degree courses, namely, B.S. degrees in Planning, Design,
and Building Technology. The B.S. (Design) course is a
reorganization of faculty programs that formerly consisted
of a combined course for potential architects and planners
but now provides training only for the former. The B.S. in
Building Technology, formerly a broad-based single program
(the B.S. in Building course), now offers specialization in
building economics/quality surveying, or building
management. It prepares students for graduate study or,
after the required period of experience, for professional
examinations in quality surveying or building. The B.S.
(Planning) was introduced in 1969/70 to replace the old B.S.
(Design) to allow for greater specialization in planning
than was possible in the older program. The B.S. (Planning)
course trains general planners for positions in government
offices and prepares students for graduate specialization in
regional or urban planning. The faculty also offers two
graduate courses in architecture. The first is a two-year
course leading to the postgraduate diploma in architecture,
a professionally oriented course which completes the six years of training required of architects and leads to the examination for the professional qualification, and the second is a two-year course leading to the M.S. (Architecture), a research-oriented course. Before the 1969-70 reorganization of faculty program, the M.S. (Architecture) program constituted the final phase of professional training. In planning, it offers the holders of the B.S. (Design), a two-year course leading to the M.S. (Urban Planning), and to holders of degrees in economics, sociology, and to all other fields it offers a two-year course leading to the M.S. (Regional Planning).

At the subdegree level the Faculty of Architecture offers a three-year course leading to the Diploma in Physical Planning, which is designed to train assistants for employment in central government and other agencies that help local communities to develop their own rural or urban areas. The faculty has never offered a subdegree diploma course in architecture, nor has it offered one in building technology since the early 1960s. However, according to the University of Science and Technology Catalogue and the Faculty of Architecture Prospectus of 1970-71, a subdegree Diploma in Building Technology course was to be introduced.

Faculty of Engineering.—The long-established engineering programs in the Faculty of Engineering now
include a variety of first degree, postgraduate, and subdegree level courses. The faculty offers the B.S. (Engineering) degree in civil engineering, mechanical engineering, and geodetic engineering or land surveying. Except for African Studies in the first year and a course in economics and industrial management in all sections 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 an industry setting for practical experience during each long vacation. The faculty also shares responsibility for the previously mentioned B.S. (Agricultural Engineering) course.

At the postgraduate level, the faculty of engineering offers a one-year course for the Postgraduate Diploma in Geodetic Engineering in order to meet the needs of the government for qualified land surveyors. It provides subdegree higher diploma level training in various areas 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 Technical 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 two-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 two-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 two-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 two-year post-G.E.C. Ordinary-Level 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 of practical experience, a two-year course for the Diploma in Land Surveying (or Geodetic Engineering). The Faculty of Engineering offers postgraduate diploma courses in the following areas: Land Survey (Geodetic Engineering), Sanitary Engineering, Highway Engineering, Hydraulic

The M.S. (Engineering) is offered either in a two-year course of instruction, examination, and thesis after research in an approved topic or project in any one of the following areas: Air Conditioning, Geodetic Engineering or Photogrammetry, Hydraulic Engineering, Mechanical Engineering, Planning and Development, Structure Engineering, or Water and Resources. The M.S. (Engineering) is offered in a one-year course of instruction, examination, and dissertation in the field of Sanitary Engineering or Highway Engineering and by a one-and-one-half year course of instruction, examination and project in the field of Electronics or Telecommunications.

The Ph.D. degree is offered in all departments in the Faculty of Engineering. It requires at least two calendar years of full-time study after the master's degree. The degree is awarded upon the completion of a thesis after advanced study and research in an approved topic.

Faculty of Pharmacy.—The Faculty of Pharmacy now offers (1) a four-year honors degree course consisting of lectures and practical classes in pharmaceutical chemistry, pharmaceutics (including microbiology), pharmacology (including physiology), and pharmacognasy that leads to the
Bachelor of Pharmacy (B. Pharm) degree; (2) a two-year course leading to the Master of Pharmacy (M. Pharm) degree; and (3) a two-year post-G.C.E. Advanced-Level 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 hospitals.

**Faculty of Science.**—The Faculty of Science offers four-year courses leading to the honors degree B.S. in six areas: biological sciences, biochemistry, chemical technology, chemistry, mathematics, and physics. In all six courses of study, the first year includes two pure science subjects, in addition to mathematics, English, and African studies. The second year is more specialized. In the third and fourth year of the biological sciences program the student may select either botany or zoology. An off-campus training program is also offered during the long vacation.

In this faculty a student may also pursue the two-year M.S. degree in any subject in which the B.S. is awarded. In mathematics the four options are pure mathematics, computational mathematics and computer science, mathematical physics and statistics and operational research.
Faculty of Social Studies.—The Faculty of Social Studies was formerly the Department of Liberal and Social Studies, which provided service lectures in languages, social sciences, and law for other faculties. In October, 1971, the department was replaced 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.

Upon its establishment in 1971-72, the new Faculty of Social Sciences initiated a new three-year B.A. degree course. It also took over from the Faculty of Agriculture two courses in land economy, the four-year course leading to the B.S. honors degree (Land Economy) and the two-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 requirements determining the use of land and land resources, both urban and rural. It includes land law and land values for 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 students must be sponsored by the agencies employing them.

**Faculty of Art.**—The Faculty of Art offers a two-year pre-degree course (which has been discontinued because of limited Sixth form facilities for teaching art) and, usually, preceded by this course, a four-year course leading to the B.A. (Art) degree which provides for specialization in the second through fourth years in one of the following areas: design, metal products design, painting, pottery and ceramics, sculpture and textiles. In addition the faculty gives one of the only two university-level teacher education programs offered outside the University of Cape Coast. This is the one-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.

**The School of Medical Science.**—The School of Medical Science was opened in 1975. The first medical degree program is a five-year course of study; beginning the fourth year, students are taught at the medical school at Kole-Bu in Accra.

**Institute of Mining and Mineral Engineering.**—The Institute of Mining and Mineral Engineering started as the
Tarkwa School of Mines in 1978 and later became the Institute of Mining and Mineral Engineering of the Faculty of Engineering at UST.

Institute of Technical Education.--The Institute of Technical Education was established in 1978 to offer an initial course of teacher training in technology subjects for graduates of technical and polytechnic schools or holders of the Higher National Diploma or equivalents. It also provides facilities for educational research in various areas of technology. Its Department of Adult Education offers vocational, part-time extension, and evening courses for artisans, private students, technicians, and officers of government departments who are preparing for either the G.C.E. or the City and Guilds examination or for vocational self-improvement.

Land Administration Research Center.--The Land Administration Research Center was established in 1971 as a U.K. technology assistance project. It is now an autonomous institution studying land problems with particular reference to West Africa.

Technology Consultant Center.--The Technology Consultant Center provides consultancy service for private and public sectors in association with other organizations and coordinates research and development programs carried
out at the university with donations from the British government and the Canadian International Development Agency. The center has established an Intermediate Technology Transfer Center (ITTC) at the Suame Magazine, which is an industrial suburb of Kumasi. The aim of the ITTC is to transfer new technology at the grassroots level to about 20,000 craftsmen pursuing various trades. It also offers on-the-job training programs, advises on the manufacture of new projects, helps in acquiring tools and equipment, and advises on marketing and supply of raw materials.

Center for Cultural Studies.—The Center for Cultural Studies provides cultural entertainment and education for the university community and conducts research into various aspects of Ghanaian culture. The center is building up an archive of materials, including the recording of traditional music from Ghana and other African countries, and hopes to provide opportunities for postgraduate research in the near future.

Institute of Renewable Natural Resources.—The Institute of Renewable Natural Resources was established in 1982 to promote, through teaching, research, and extension work, the scientific management of the forests, grasslands, wildlife, freshwater, fisheries and watersheds of Ghana.
Boadi Dairy Cattle Project (BDC).—The Boadi Dairy Cattle Project is a joint venture by the Canadian Agency for International Development (CIDA) and UST. The BDC aims at crossbreeding Canadian Frisian cattle with local cattle and rearing hybrids in the forest zones of Ghana to make them resistant to tse-tse flies.

Formal links and exchanges with universities abroad.—Relations and interchange of teachers have been established between various departments at UST and their counterparts in the University of Manchester Institute of Science and Technology, and the University of Cambridge, Strathclyde, Virginia State, British Columbia, Salford, and Newcastle (16).

Honorary Degrees.—UST awards the following honorary degrees to distinguished individuals who have made notable contributions to society: Doctor of Science (D.Sc.); Doctor of Literature (D.Lit.); Master of Arts (M.A.); and Master of Science (M.S.)

The University of Cape Coast

The University of Cape Coast is organized into four faculties, three schools and about twenty departments, as follows:
Faculty of Arts: School of Languages and Literature consisting of Departments of Classics, French and Ghanaian Languages, History, Music, and Religious Studies;

Faculty of Economic and Social Studies: Center for Development Studies and Departments of Economics, Geography, Sociology, Secretaryship, and Commerce;

Faculty of Science: Departments of Botany, Chemistry, Mathematics, Physics, and Zoology;

Faculty of Education: Institute of Education and Departments of Educational Foundations and Science Education, and Institute of Educational Planning and Administration.

Apart from the nursing education program at the University of Ghana and the postgraduate art education course at the University of Science and Technology, all university programs in education are offered at the University of Cape Coast, which is primarily responsible for training graduate teachers for the country’s pre-university education system. Thus education is taught with all subjects studied.
Degree programs.--During its affiliation with the University of Ghana, the University of Cape Coast offered two "general" first degree courses leading to the B.S. General (Education) of the University of Ghana to prepare teachers of science and arts subjects for the secondary-level schools. However, due to the shortage of adequately qualified candidates for the degree courses it also offered a post Ordinary-Level Arts and Science Preliminary Examination in Arts and Science to prepare students for the B.S. General Education and B.A. General Education courses. At the end of the 1971-72 academic year, the preliminary course in Arts was discontinued while the university college continued to offer the preliminary course in science and the two general first degree courses which, in 1972-73, led to a degree from the University of Cape Coast rather than that of the University of Ghana. The preliminary science course, extended from one to two years, consisted of three science subjects, one minor science subject, and English.

The requirements for admission into the B.S. General Education program included two A-level passes or a pass in the Preliminary Examination in Science. The course consists of three science subjects, African studies, and education in the first year, and the second and third years consist of education and two science subjects. The B.A. General Education courses consist of education and two arts
subjects in each of the three years and African studies in
the first year.

In addition to these first degree courses, the B.A.
General (Education) and the B.S. General (Education),
when it became a full university in 1971-72, the institution
introduced three new degree courses:
1. The B.A. Honors (Education), which consists of the first
year of the B.A. General (Education) course and a
further two-year program consisting of education and a
single or combined academic subject;
2. The B.S. Honors, a one-year course in one subject
(botany, zoology, chemistry, mathematics, or physics)
for holders of the B.S. General (Education) degree; and
3. The B.Ed., an honors degree course in education, which
emphasizes teaching methods and techniques, educational
philosophy, school organization and administration, and
the psychology of teaching and learning in addition to
two arts and two science subjects as minor. The B.Ed.
is awarded with a diploma in Social Sciences (Dip. Soc.
Sci.), Arts (Dip. Arts) or Science (Dip. Sci.).

At the degree level, the University of Cape Coast
offers several other courses: Bachelors of Arts (B.A.),
Bachelor of Science (B.S.), Bachelor of Music (B.Mus.),
Bachelor of Science in Agriculture (B.S.(Agric.)), Bachelor
of Arts in Secretaryship (B.A. (Sec.))., and Bachelor of Arts
in Commerce [B.A.(Comm)]. All of these courses are offered concurrently with the Diploma in Education (Dip.Ed.).

According to Asiedu-Akrofi (1), any three of the following subjects may be studied, along with education, for any of the degree courses stated above (the courses, however, lead to specializations in which students show the greatest proficiency): English, French, Greek, secretaryship, Latin, Greek and Roman civilization, geography, music, religious studies, history, commerce, sociology, economics, mathematics, and Ghanaian languages (Ewe and Akan).

Both of the Bachelor of Education (B.Ed.) degrees are awarded with the Diploma in Arts (Dip. Arts), (Dip.Soc.Sci), or Science (Dip.Sci.). Any three of the following subjects may be studied for any of the above degrees (again, the courses lead to specializations in which the students show the greatest proficiency): botany, chemistry, zoology, agriculture, mathematics, biology, and physics.

The education components of the above degree courses are as follows: Psychology of Human Development, History of Education in Africa (West Africa), Curriculum Studies and Methods, Psychology of Human Learning, Social Foundations of African Education, Guidance and Counseling, Educational Measurement and Evaluation, Philosophy of African Education, School Organization and Educational Administration, and Methods of Teaching One Subject and Practice Teaching.
Subdegree Diploma and Certificates.—The university offers a three-year Diploma course in French and laboratory technology. In addition to the courses provided by the university, its Institute of Education conducts external examinations and reviews the Diploma courses of the three teacher training colleges—Advanced Teacher Training College, the Specialist Training college (both at Winneba), and the Bagabaga Training College at Tamale—in the following areas: French, art, physical education, home science, mathematics, science, English, business education, Ghanaian languages, music, agricultural science, and technical education.

In addition, the Institute of Education provides library services for training colleges in the area and organizes in-service programs for teachers. It also conducts the external examinations of the three-year certificate courses at post-secondary schools in these fields: science, mathematics, English, home science, agricultural science, vocational science, art, music, and commerce (9).

Graduate courses.—At the graduate level, the University of Cape Coast offers courses leading to the Master of Arts (M.A.) and Master of Education (M.Ed.) degrees as well as two postgraduate courses, the Certificate
Postgraduate certificates and diplomas.—The Certificate in Education is a professional course for graduates of other universities, including the University of Ghana, the University of Science and Technology and any other accredited institution of higher education, who, after teaching for at least one year following graduation, decide to enter the teaching profession. This is equivalent to the Diploma in Education. The courses of study include the following: Educational Psychology (Psychology of Human Development, Psychology of Human Learning, History of Education in Africa with emphasis on West Africa, Curriculum Studies and Methods, Social Foundations of African Education, Guidance and Counseling, Educational Measurement and Evaluation, Philosophy of African Education, School Organization and Educational Administration, Comparative Education, and Methods of Teaching One Subject and Practice Teaching. Other postgraduate certificate courses are offered in agricultural education and in English for students from the Francophone countries.

The Diploma in Advanced Study of Education (DASE) 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 two years. The Diploma requires one year of full time or at least two years of part-time study, and consists of three subjects, including the compulsory educational psychology and child development.

The requirements for admission into the Master of Arts (M.A.) and Master of Education (M.Ed.) degree programs is a B.A. or a B.Ed. degree. Two years of full-time or three years of part-time study are usually necessary to complete the degree. The programs are given in two sections, Part I and Part II. Part I consists of courses of instruction and examinations, and Part II is a thesis in an approved research topic and oral examinations. The M.A. degree may be obtained in classics, English, history, economics, geography, or sociology (7). The first students for the masters degree program in history were enrolled in 1975 after the opening of the West African Historical Museum in the Cape Coast Castle in the same year.

The Master of Science (M.S.) degree requires two years full-time or three years of part-time study. Like the M.A. and M.Ed. courses, the M.S. program is in two sections, Part I and Part II. Part I includes courses of instruction, examinations, projects, and a foreign language test; Part II consists of a thesis in an approved research topic, an
examination, or both, in any of the following areas: botany, chemistry, mathematics, physics, or zoology.

The Doctor of Philosophy (Ph.D.) degree is offered in all faculties. The program consists of a thesis in an approved topic, which usually takes three years full-time or four and one-half years part-time to complete.

**Formal links and exchanges with universities abroad.**—The University of Cape Coast engages in exchanges of lecturers, resident staff, and students with the University of Benin in Nigeria. It also has links with the Institute of Social Studies of the Hague and Strathclyde as well as the City College of New York (CCNY).

**Honorary degrees.**—The University of Cape Coast awards the following honorary degrees to distinguished individuals who have made notable contributions to society (7): Doctor of Law (L.L.D.), Doctor of Literature (D.Litt.), Doctor of Classics (D.Cl), and Doctor of Science (D.S.).

It should be noted that, since Ghana's universities are unable to offer courses in all areas, students still travel overseas to pursue studies in fields such as dentistry, forestry, veterinary medicine, and fisheries. They also go abroad for certain specialized courses and for courses apparently unavailable to sufficient numbers of students within the country in areas including medicine, engineering, agriculture, accounting, science, and economics.
Admission Requirements and Duration of Programs

**Subdegree Certificates and Diplomas**

The length and admission requirements of Subdegree Certificate and Diploma programs vary greatly. They are usually designed to train middle-level personnel and employees of government agencies. Upon the government's request, a number of those programs were created in 1966.

Certificate courses are one or two years in length, and their entrance requirements are usually lower than those for diploma courses. Some require an entrance examination with no formal qualifications while others require a pass in a few subjects in the General Certificate of Education Ordinary Level Examination (G.C.E. O level).

Diploma courses are two or three years in length, with the exception of those at the Specialist Training College which had always been four years long until they were recently reduced to three years. At the University of Ghana, requirements vary from course to course. The range includes completion of a post-ordinary-level course, ordinary passes, and a certificate in a particular subject earned following a course having less than ordinary-level entry requirements. At the UST, the entry requirements consist of either a School Certificate or one pass in the G.C.E. A-level in addition to some G.C.E. Ordinary-level passes or some other acceptable qualification such as a
technical or other certificate earned at post-ordinary level. At the University of Cape Coast entry requirements are passes in five subjects at the G.C.E. level, including English Language. Table V gives the specific requirements for each subdegree program.

TABLE V

SUBDEGREE PROGRAMS AND THEIR ENTRY REQUIREMENTS

<table>
<thead>
<tr>
<th>University and Faculty, School, or Institute</th>
<th>Years of Study</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Ghana</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Certificates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archives Administration</td>
<td>1</td>
<td>Three G.C.E. passes including English or Teacher’s Certificate</td>
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<tr>
<td>Computer Science</td>
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<tr>
<td>Dance</td>
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<tr>
<td>Librarianship</td>
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<tr>
<td>Nursing Administration</td>
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<tr>
<td>Statistics</td>
<td></td>
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</tr>
<tr>
<td>Prison Administration</td>
<td>2</td>
<td>Three G.C.E.-O passes including English or Teacher’s Certificate A</td>
</tr>
<tr>
<td><strong>Diplomas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Education</td>
<td>1</td>
<td>Five G.C.E.-O passes including English or Post-secondary Teacher’s Certificate A</td>
</tr>
<tr>
<td>Archives Administration</td>
<td></td>
<td></td>
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<tr>
<td>Librarianship</td>
<td></td>
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<tr>
<td><strong>Accounting</strong></td>
<td></td>
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<tr>
<td>African Music</td>
<td>2</td>
<td>Five G.C.E.-O passes including English, at least two G.C.E.-A level, and a pass in the General Paper or Teacher’s Certificate A</td>
</tr>
<tr>
<td>Nursing Education-Administration</td>
<td></td>
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<tr>
<td>Tutorship</td>
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<tr>
<td>Public Administration</td>
<td></td>
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<tr>
<td>Social Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University and Faculty School, or Institute</td>
<td>Years of Study</td>
<td>Requirements</td>
</tr>
<tr>
<td>---------------------------------------------</td>
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<td>--------------</td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
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<tr>
<td>General Agriculture</td>
<td></td>
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<tr>
<td>Agricultural Mechanization</td>
<td></td>
<td></td>
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<tr>
<td>Animal Health</td>
<td></td>
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<tr>
<td>Home Science</td>
<td></td>
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<tr>
<td>Licentiate in Theology [offered externally with instruction in Trinity College, Legon; Pedu Major Seminary, Cape Coast; St. Victor's Seminary (Translation), Tamale; St. Theresa's Major Seminary; St. Charles Major Seminary]</td>
<td>2</td>
<td>Five G.C.E. passes, including English or Teacher Certificate A, postsecondary</td>
</tr>
<tr>
<td>Dance</td>
<td>3</td>
<td>Five G.C.E.-O passes, including English or Teacher's Certificate A, Postsecondary</td>
</tr>
<tr>
<td>Drama and Theater Studies</td>
<td></td>
<td></td>
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<tr>
<td>Music</td>
<td></td>
<td></td>
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<tr>
<td>Languages--Institute of Languages (Accra)</td>
<td></td>
<td></td>
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<tr>
<td>Home Science Education and Music Education (instruction offered only at Specialist Training College, Winneba)</td>
<td>4</td>
<td>Five G.C.E.-O passes, including English or Teacher's Certificate A, Postsecondary</td>
</tr>
<tr>
<td>University of Science &amp; Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art Predegree Preparation</td>
<td>2</td>
<td>Five G.C.E.-O passes including English with at least 2 G.C.E. A Level passes including Art</td>
</tr>
<tr>
<td>Forestry</td>
<td></td>
<td></td>
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<tr>
<td>Estate Management</td>
<td></td>
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<tr>
<td>Land Surveying</td>
<td></td>
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<tr>
<td>Mining and Mineral Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University and Faculty, School, or Institute</td>
<td>Years of Study</td>
<td>Requirements</td>
</tr>
<tr>
<td>---------------------------------------------</td>
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</tr>
<tr>
<td><strong>Diplomas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Extension and Farm Management</td>
<td>2</td>
<td>Five G.C.E.-O passes including English, plus certificate from Kwadaso Agricultural College</td>
</tr>
<tr>
<td>Tropical Horticulture (DTH)</td>
<td></td>
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<tr>
<td>Civil Engineering</td>
<td></td>
<td></td>
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<tr>
<td>Electrical Engineering</td>
<td></td>
<td>Five G.C.E.-O passes including English or ONC or OTD awarded by Polytechnics in Ghana</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Surveying</td>
<td></td>
<td>Satisfactory completion of Land Surveying Certificate course</td>
</tr>
<tr>
<td>Forestry</td>
<td></td>
<td>After certificate of Sunyani School of Forestry</td>
</tr>
<tr>
<td>Physical Planning</td>
<td>3</td>
<td>Four G.C.E.-O passes including English and at least one G.C.E.-A pass or ONC</td>
</tr>
<tr>
<td>Pharmacy (awarded to students who have satisfactorily completed all degree requirements except the final examination)</td>
<td>4</td>
<td>Five G.C.E.-O passes in English, Mathematics, Chemistry, Physics and Biology and three G.C.E.-A passes including Chemistry</td>
</tr>
<tr>
<td><strong>UNIVERSITY OF CAPE COAST</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificates</td>
<td>3</td>
<td>Five G.C.E.-O passes</td>
</tr>
<tr>
<td>Education, major and minor offered externally in Post Secondary Schools in Science Mathematics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE V—Continued

<table>
<thead>
<tr>
<th>University and Faculty, School, or Institute</th>
<th>Years of Study</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4-3</td>
<td>Five G.C.E.-O passes</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Science</td>
<td></td>
<td></td>
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<tr>
<td>Agricultural Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Subjects</td>
<td></td>
<td></td>
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<tr>
<td>Commercial Subjects</td>
<td></td>
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</tr>
<tr>
<td>Art</td>
<td></td>
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<tr>
<td>Music</td>
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</tr>
<tr>
<td><strong>Diplomas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>4-3</td>
<td>Five G.C.E.-O passes</td>
</tr>
<tr>
<td>Art Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
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<tr>
<td>Home Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
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<tr>
<td>Science</td>
<td></td>
<td></td>
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<tr>
<td>English</td>
<td></td>
<td></td>
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<tr>
<td>Business Education</td>
<td></td>
<td></td>
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<tr>
<td>Ghanaian Languages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Science</td>
<td></td>
<td></td>
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<tr>
<td>Technical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(all offered externally through the Institute of Education at the Specialist Training College, and Advanced Teacher Training College)</td>
<td>3</td>
<td>Five G.C.E.-O passes including French and English, and a G.C.E.-A level passes in French or must have done sixth form of French for two years</td>
</tr>
<tr>
<td>French Teaching (French Teachers' Dip.)</td>
<td>3</td>
<td>Five G.C.E.-O passes including French and English, and a G.C.E.-A level passes in French or must have done sixth form of French for two years</td>
</tr>
</tbody>
</table>
### TABLE V—Continued

<table>
<thead>
<tr>
<th>University and Faculty, School, or Institute</th>
<th>Years of Study</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Technician (Lab. Technicians’ Dip.)</td>
<td>1</td>
<td>Four G.C.E.-O passes including English, Math., General Science, and Additional Science</td>
</tr>
<tr>
<td>Education together with Bachelor’s degrees (Dip.Ed.)</td>
<td></td>
<td>Bachelor’s degree</td>
</tr>
</tbody>
</table>


### First Degree

The first degree programs of all three of Ghana’s universities have high entry requirements that reflect their British models. Although some former British colonies have instituted four-year degree courses with only G.C.E. Ordinary-Level entrance requirements, Ghana still requires the G.C.E. Advanced-Level, which has become more difficult to attain with the passage of time. The entry requirements consist of (1) the university’s minimum entry requirements for all of its degree courses and (2) additional requirements for the subjects to be passed and the level at which they should be passed that are established by the faculty or departments offering the courses in question. Generally,
the minimum entry requirements are passes in five subjects, including English language in the G.C.E. Ordinary-Level examination or its equivalent. In addition to this, both the University of Science and Technology and the University of Cape Coast require two passes at the advanced level, and the University of Ghana requires three Advanced-Level passes (9). In 1970-71, the University of Ghana raised its admission requirements to (1) three Advanced-Level passes, one of which must be Grade D or better, and (2) a pass in the General Paper. However, consideration is given to those with two Advanced-Level passes with a grade of C or better. Although the entry requirements of the UST are two Advanced-Level in the addition to the five Ordinary-Level passes, every faculty, except that of Art, requires three Advanced-Level passes in specified subjects. At the University of Cape Coast admission is based on the minimum entry requirements, which include passes in five subjects at the G.C.E.-Ordinary Level as well as passes in two subjects at the Advanced-Level with a grade of D or better. A few students are admitted with only five G.C.E.-O Level passes, but they are required to engage in preliminary studies for one year before being admitted into degree programs.
Length of Program

At the University of Ghana all first degrees take three years to complete, with the exception of the medical degree (M.B. and Ch.B.), which require six years, and the B.S. Honors and the B.S. Honor in Agriculture, which require four years. At the University of Cape Coast, and the University of Science and Technology, all courses, with the exception of UST's new B.A. (Social Science) and B.A. in Economics, require four years.

Examination

One examination which is considered to be very important is conducted at the end of the school year to determine the progress of the student. At the University of Ghana, for example, students in many programs take the First University Examination (F.U.E.) in their subject at the end of the first year and the various parts of the final degree examinations at the end of the subsequent years of their course of study. At Kumasi, students take university examinations at the end of the first, third and fourth years and the progress or faculty examinations at the end of the second year. Beginning 1978-79 academic year, university examinations were administered each semester.
Grading Systems

Pre-University Grading.—WASC/GCE-O subject grades are as follows:

<table>
<thead>
<tr>
<th>WASC Grade</th>
<th>GCE Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Excellent) Pass</td>
</tr>
<tr>
<td>2</td>
<td>(Very Good) Pass</td>
</tr>
<tr>
<td>3</td>
<td>(Good) Pass</td>
</tr>
<tr>
<td>4,5,6</td>
<td>(Credit) Pass</td>
</tr>
<tr>
<td>7,8</td>
<td>(Pass) Fail</td>
</tr>
<tr>
<td>9</td>
<td>(Fail) Fail</td>
</tr>
</tbody>
</table>

Certificate classifications are as follows:

- Division I with Distinction - 12 or less
- Division I 13-24
- Division II 25-36
- Division III 37-48

HSC/GCE-A subject grades are as follows:

A, B, C, D, E, (Pass grades GCE Equivalency Pass at GCE-A level)
SUBS (Generally a pass Pass at GCE-O level below GCE-A level)*
Fail (Fail) Fail

*Some subjects are taken at the subsidiary level; others are taken at GCE-A level and the results are a subsidiary pass (SUBS)—i.e., passing an "A" level exam at the "O" level.

University grading.—The University of Ghana's grading system is as follows:

- A 70-100 (Pass)
- B+ 60-69 (Pass)
- B 50-59 (Pass)
- C 40-49 (Pass)
- D 30-39 (Fail)
- F 0-29 (Fail)
The University of Science and Technology's grading system is as follows:

- **A+**: 85-100 (Pass)
- **A**: 75-84 (Pass)
- **B**: 65-74 (Pass)
- **C**: 50-64 (Pass)
- **D**: 40-49 (Pass)
- **E**: 0-39 (Fail)

The University of Cape Coast’s grading system is as follows:

- **A**: 70-100 (Pass)
- **B+**: 60-69 (Pass)
- **B**: 50-59 (Pass)
- **C**: 40-49 (Pass)
- **D**: 39-39 (Fail)
- **E**: 0-29 (Fail)

**Structure of Arts and Science Degrees**

The first degrees awarded by the universities of Ghana are of two basic types, general and honors. The main difference between the two lies in the type of program leading to the degree rather than in the quality of the individual student's performance. Honors degree courses provide for a greater degree of specialization in concentrating on one or—in a few cases—two subjects, in greater depth or to a higher level than do general degree courses.

General degree courses are usually three years in length. Most have a basic 4-3-3, 3-3-3, or 3-2-2 structure; in other words, the student studies three or four subjects in addition to African studies in the first year and three
in the second and third years, or three subjects in addition to African Studies in the first year and two in the second and third years. Among the general degrees are the B.A. General (3-3-3), which is being phased out, the B.S. General (3-2-2), and the B.S. (Home Science) General of the University of Ghana; and the B.S. General (Education 4-3-3 and the B.A. General (Education) 3-3-3 of the University of Cape Coast. With the exception of home science, the general degrees are awarded in two or three subjects.

The honors degree course structures vary considerably, but in every case the honors 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 the program. Students study their subject or subjects to a higher (honor) level than do those taking the same subjects in a general degree program. Honors 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. Honors, B.S. Economics, L.L.B. (all three are being phased out), B.S. Honors, and B.S. (Honors) Agriculture; and the University of Cape Coast's B.S. Honors (Education) and B.Ed.
The program for the new B.A. of the University of Ghana that replaced the general and honors degrees in the "humanities"—B.A. General, B.A. Honors, LL.B., B.S. Economics, B.S. (Administration)—has a 3-2-2 (or 1) structure intended to provide both range and depth.

Regardless of the type of course—general, honors, 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**

Degrees are classified on the basis of an individual's performance in the degree course as First Class Honors, Second Class Honors (Upper Division) or Second Class Honors (Lower Division) degrees, or without honors as Pass or Third Class. Honors degree may be gained depending on the type of course or the performance of the individual since the term "honors" is used to indicate greater specialization in the academic program rather than level of performance. At the University of Cape Coast, however, degrees are classified on the basis of performance, as First Class, Second Class (upper division) or Second Class (lower division), and Third Class or Pass; and honors are awarded to designate superior performance, except in the case of "Special Honors" which designates an intensive course in the Faculty of Science.
An example of the transcripts of each university appears in Appendix E.

**Postgraduate Programs**

Postgraduate programs are offered in various subjects at Ghana's three universities. Most of these programs lead to various masters degrees, postgraduate diplomas, or certificates. Although most departments have doctoral programs, they do not function regularly due to lack of qualified students and facilities. By 1971, the University of Ghana had awarded four Ph.D.s, and the UST admitted its first Ph.D. candidate in the 1972-73 academic year.

Requirements for admission to any of the postgraduate programs normally include the first degree of high classification with at least a Second Class Honors (Upper Division) in an approved subject or field. However, at the University of Ghana, suitable candidates who pass the qualifying examination may be admitted. Most master's degree programs require two years of full-time or three years of part-time study, whereas postgraduate diploma or certificate courses require one year of full-time or two years of part-time study. At the University of Ghana, the M.S. and M.S. (Agriculture) programs are usually one year in length for candidates with an honors degree and two years for those with a general degree; at UST all master's degrees, with the
exception of one, require two years. The first year of the master's program consists of courses of instruction and examination and research, if a thesis is required. Postgraduate diploma or certificate courses consist of either a course of instruction or such a course and research or project work. At UST a clear distinction is made between the two types of postgraduate programs in that the master's degree programs are of an academic nature and are not designed to give merely a professional qualification. Normally only students with an honors degree of high classification such as first class or second class (Upper division) are admitted into these programs. On the other hand, the postgraduate diploma programs are designed to give professional or special training and are usually open to graduates whose degrees are not as high as the first class or second class (Upper division) honors degrees. At the University of Ghana, the Postgraduate diploma is considered equivalent to the first year of the master's program in the same field (16).

Tables VI and VII present a survey of the various programs in each of Ghana's three universities as well as an outline of the subjects that may be taken for a master's level degree or a postgraduate diploma or certificate in each institution.
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Certificate in Accounting
Diploma in Hospital Administration
Diploma in Public Administration
Diploma in African Music
Diploma in Dance
Diploma in Drama and Theater Studies
General Diploma
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² Yrs of Study refers to the duration required for the degree.
³ Yrs of Study for diplomas and certificates varies depending on the specific program.
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### TABLE VI—Continued

1 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 pre-degree art course, and the University of Ghana and the University of Science and Technology offered programs for the Ph.D.

2 Since entry requirements for all first degree courses (except the University of Ghana G.S.C. Honours and the University of Cape Coast B.S.C. Honours (Education)) are set at General Certificate of Education Advanced-Level (G.C.E.-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.

3 From a great variety of entry levels.

4 The new B.A. degree for which all students beginning a degree course in this faculty in 1972-73 and subsequent years will study.

5 To be replaced by the new B.A.

6 Usually 1 year beyond an honours degree and 2 beyond a general degree.

7 In a single subject or in two combined subjects.

8 One year beyond the B.Sc. General.

9 In electrical, mechanical, civil, or geodesic engineering.

10 One year beyond the B.Sc. General (Education).
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<td>Management</td>
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\[ ^1M = \text{Master's Degree} \]
\[ ^2D = \text{Postgraduate Diploma} \]
\[ ^3C = \text{Postgraduate Certificate} \]

Student Enrollment and Output Patterns

University education has held a favored position within the Ghanaian educational system, especially during the Nkrumah regime, when it received an extremely high proportion of the government funds available for education. With this support each university achieved a remarkable growth in student numbers in the years following the reorganization of the higher education system. By 1965-66, the combined enrollment in the University of Ghana, the University of Science and Technology, and the University of Cape Coast was 4,301, which was three times more than their total enrollment in 1961-62, as noted in Table VIII.
TABLE VIII
ENROLLMENT FIGURES IN THE UNIVERSITIES
OF GHANA, 1961-1982*

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<thead>
<tr>
<th>Year</th>
<th>University of Ghana</th>
<th>UST</th>
<th>UCC</th>
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<td>1962-63</td>
<td>1,174</td>
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<td>1963-64</td>
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<td>808</td>
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<td>1964-65</td>
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<tr>
<td>1982-83</td>
<td>3,384</td>
<td>2,979</td>
<td>1,610</td>
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After the 1966 military coup, however, the new Ghanaian government, in its attempt to deal with the country's inherited financial difficulties, held down expenditures for higher education. Consequently, the physical development of the three higher education institutions lagged while their total enrollment had reached some 5,000 students in 1971-72, a total that rose to 7,728 by 1982-83 (7).

The total number of degrees, diplomas and certificates awarded annually by the institutions increased from 239 in
1961 to more than 1,300 in 1971 and 2,081 in 1983. Although the universities achieved impressive overall growth, a number of factors combined to place limits on the extent to which they could contribute, through the output of trained personnel, to Ghana's development.

1. The early advancement of higher education was uncoordinated. In the absence of effective governmental or other mechanisms for assuring coordination, each institution for the most part proceeded with its own development, sometimes adding programs or departments that duplicated those of its sister institutions. This led to the government's intervention to reorganize higher institution from 1963-65.

2. The establishment of a separate university college of agriculture adversely affected enrollment growth in the existing faculties.

3. 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.

4. Finally, the development of higher education went forward at a time when Ghana's secondary schools were graduating an insufficient number of science candidates who
could meet 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 (19). On the other hand, in the course of time, as the secondary schools produced more students for higher education, it became impossible for the universities to admit them all. As noted by Brown (5) the University of Science and Technology accepts only about 20 per cent of the applicants who qualify for admission. In 1973-74, for example, 4,000 students applied for admission, and 3,000 qualified, but only 600 were admitted. It was also reported that the University of Cape Coast rejects about two-thirds of its qualified applicants.

The University of Ghana

Total enrollment and output growth.—At the University of Ghana, total enrollment jumped from 700 in 1961 to 2,000 in 1965-66, grew much more slowly after the 1966 coup, and leveled off at some 2,500 in the years 1969-70 through 1971-72 (as shown in Table IX), with a small increase to 3,384 by 1982-83 (2).
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**Table IX**

NUMBER OF STUDENTS AT THE UNIVERSITY OF GHANA, BY LEVEL AND FIELD OF STUDY: 1957-58—1972-73
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<td>1965-66</td>
<td>Includes 49 in preliminary courses studying mainly arts and social studies subjects.</td>
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<td>1966-67</td>
<td>Includes 54 in preliminary courses studying theology and other subjects.</td>
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<td>1967-68</td>
<td>Includes 48 in preliminary courses studying theology and law.</td>
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<td>1968-69</td>
<td>Includes 3 in unspecified preliminary courses.</td>
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<tr>
<td>1969-70</td>
<td>Includes, in addition to 41 premedical students, 6 students in unspecified preliminary courses.</td>
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<td>1970-71</td>
<td>Includes 49 in a preliminary course and 72 in the degree course.</td>
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<td>Includes only the first degree course in law, the B.A. (Honours) Law degree course, 1959-60 through 1964-65, and the L.B.A. degree course, 1965-66 through 1969-70.</td>
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<td>1972-73</td>
<td>Includes the former L.B.A. which followed the B.A. (Honours) Law course, and the current practical course in law, which follows the current L.B.A. course.</td>
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<tr>
<td>1973-74</td>
<td>Includes only the first degree course in law, the B.A. (Honours) Law degree course, 1959-60 through 1964-65, and the L.B.A. degree course, 1965-66 through 1969-70.</td>
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<td>Includes the former L.B.A. which followed the B.A. (Honours) Law course, and the current practical course in law, which follows the current L.B.A. course.</td>
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<td>Includes only the first degree course in law, the B.A. (Honours) Law degree course, 1959-60 through 1964-65, and the L.B.A. degree course, 1965-66 through 1969-70.</td>
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The following enrollments in that course have been reported:

- Includes students in the preliminary science course. The following enrollments in that course have been reported:
- Includes postgraduate degree, diploma and certificate courses and research.
- Includes all students in the M.Sc. in Agriculture.
- Includes all students for the M.A. and Ph.D.
- Includes all students for the Ph.D.

**Notes:**
- Postgraduate diploma in Library Studies.
- Postgraduate diploma in Social Administration.
- Distributed as follows: Archeology—2; Economics—23 (including 1 Ph.D. candidate); English—12; Geography—14; History—5; Linguistics—6; Sociology—14; Study of Religion—6.
- The course 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 L.B.A. course for those who had completed the B.A. (Honours) Law degree course; (2) from 1965-66 through 1970-71, the 1-year L.B.A. degree course, and (3) in 1972-73 both the practical course in law and the Master of Laws course.

**Notes:**
- Includes 9 in Master of Laws course and 81 in the practical course in law.
- Distributed as follows: Botany—5 (including 3 Ph.D. candidates); Biochemistry—1; Chemistry—1; Nutrition—2; Zoology—14.
- Distributed as follows: Postgraduate diploma—8; M.Sc.—6; Ph.D.—1.
After gaining university status, the institution doubled its enrollment from about 700 to 1,200 in 1962-63. To accommodate this expansion, low-cost annexes to the halls of residence were built to provide rooms for the extra students and a cafeteria was constructed to lower the cost of food. After the residential hall annexes were completed, the university had a total of 2,400 spaces for students in its halls. By the late 1960s, the university was forced to turn away qualified applicants for the first degree courses due to lack of space. In 1968-69 and in 1970-71, for example, the university had to turn down 150 and 248 applicants, respectively, who met the minimum entry requirement.

As illustrated in Table X, the number of degrees, diplomas, and certificates awarded annually to students by the University of Ghana increased from fewer than 192 to 710 in 1970. By the end of 1971 it had awarded 4,400 first degrees, about 1,200 subdegree level diplomas and certificates, and more than 300 postgraduate degree diplomas.
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This table provides data on the distribution of degrees and diplomas awarded from 1951 to 1971, categorizing them by field of study and award type.
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Enrollment distribution.—The student body of the University of Ghana is dominated by Ghanaian undergraduates. The 1971-72 enrollment of 2,530 included 382 women (15 per cent) and 170 non-Ghanaians (7 per cent) from 28 countries--56 from the United States, 38 from Nigeria, 23 from the United Kingdom, and the rest from 15 countries in and 10 countries outside Africa.

According to the distribution of students by level and field of study presented in Table IX, Legon remains a predominantly undergraduate institution. About 75 per cent of all students in 1971-72 were enrolled in diploma and certificate courses, and 11 per cent were enrolled in postgraduate degree, diploma, and other programs. The proportion of graduate students, however, has increased steadily with time.

Although, as George notes (9), the number of students receiving middle-level training in the university's subdegree courses has been declining in recent years, the distribution of these students by field of study has been improved. For example, in the mid-1960s, a high percentage of these students had enrolled in diploma courses in administration and the performing arts; now, although enrollments in these fields have reduced, enrollments in agriculture, statistics and accounting have increased.
At the first degree level an imbalance exists between enrollments in science, agriculture, and medicine on the one hand, and all other fields including arts, social sciences, law and administration, on the other, as shown in Table XI.

**TABLE XI**

**TOTAL, NUMBER, AND PERCENTAGES OF STUDENTS ENROLLED IN AGRICULTURE, MEDICINE AND SCIENCE FROM 1957-1972**

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<thead>
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<th>Year</th>
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<th>Other</th>
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<th>Total</th>
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<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
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<td>1957-58</td>
<td>112</td>
<td>30.9</td>
<td>251</td>
<td>69.2</td>
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<td>31.2</td>
<td>316</td>
<td>68.9</td>
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<td>1959-60</td>
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<td>378</td>
<td>69.4</td>
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<td>1960-61</td>
<td>165</td>
<td>27.5</td>
<td>434</td>
<td>72.5</td>
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<td>1961-62</td>
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<td>1962-63</td>
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<td>19.2</td>
<td>719</td>
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<td>1963-64</td>
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<td>871</td>
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<tr>
<td>1970-71</td>
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<tr>
<td>1971-72</td>
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<td>1,211</td>
<td>64.2</td>
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This table indicates that proportion of all first degree students enrolled in the scientific fields declined from about 31 percent in the late 1950s to about 18 percent in 1963-64 and 1964-65 before rising again above the 30 percent
level in the late 1960s. Of the 1,887 first degree and predegree students, only 667 (36 per cent) were in scientific programs--338 (17.9 per cent) were in medicine, 216 (11.4 per cent) in science and home science, and 122 (0.65 per cent) in agriculture--while about 49 per cent were enrolled in arts and social studies, 9 per cent in administration, and 6 per cent in law.

The medical program has evidently had no trouble attracting well-qualified students, whereas enrollment in science and agriculture has been limited by the following factors. The secondary schools have not produced enough science graduates who are able to meet the high admission requirements established for scientific university degree courses. Many of the students who did meet the requirements elected to take the more highly rewarded medical course and the professional courses in engineering, architecture, and other fields offered at the UST or chose to go abroad rather than enter a pure science or agricultural program at Legon (10). Biological sciences tend to enroll fewer and less talented students than the physical sciences.

In his address to Congregation on March 16, 1968, Kwapong appealed to those concerned with teaching science students in the secondary schools to "reverse the balance between the sciences in the sixth forms and to take some
measures to encourage more students, essentially the brighter ones, to study the biological sciences" (23, pp. 388-89).

Table XII shows that the proportion of graduates in these scientific fields increased to about one-third in each of the four years from 1959 through 1962; dropped to 8 per cent in 1964; and rose to 26 per cent in 1971.

**TABLE XII**

TOTAL, NUMBER, AND PERCENTAGES OF DEGREES AWARDED IN AGRICULTURE, MEDICINE, SCIENCE AND NONSCIENCE FIELDS

<table>
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<th>Year</th>
<th>Total</th>
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<th>Nonscience Humanities</th>
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<td>Number</td>
<td>Percentage of Total</td>
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Graduates.--The enrollment of students between the two broad areas--science and non-science--is clearly reflected in the output of the University of Ghana. As illustrated in Table X, of the 4,384 first degrees awarded during the fifteen-year period from 1957-71, 895 (20 per cent) were in agriculture, science, and medicine, and the remaining 3,489 (79.6 per cent) were in other fields.

In view of this problem, in his address to the university congregation in March, 1967, the vice-chancellor stated that science students should be given priority in admission, that the ultimate ratio between students in 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 (11, p. 127).

University of Science and Technology

Total enrollment and output growth.--Table XIII shows the number of students at the UST by level and field of study during the period from 1961-62 through 1971-72, and Table XIV shows the number of degrees, diplomas, and certificates awarded from 1957 through 1972, also by level and field of study.
### TABLE XIII

NUMBER OF STUDENTS AT THE UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI\(^1\),
BY LEVEL, FACULTY, AND COURSE: 1961-62—1971-72\(^*\)

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**FIRST DEGREE COURSES**

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\(^*\) Figures for 1971-72, 1970-71, and 1969-70 are not available.
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TABLE XIII—Continued

1. Means there were no students.
2. Formerly (1961-66) the Kwame Nkrumah University of Science and Technology.
3. Excluding preliminary or predegree courses.
4. Includes 4 students in a special course in biochemistry not shown in column.
5. This course was offered in the Faculty of Agriculture through 1970-71, in the Faculty of Social Sciences from 1971-72.
6. Course leading to Examination of the Royal Institute of Chartered Surveyors.
7. Includes 55 in a predegree liberal arts course not shown in column.
8. Including predegree art course and special art preparatory course.
9. Includes 1 student in special art preparatory course.
10. Includes 4 students in special art preparatory course.
11. Includes prescience, pre-engineering, and prepharmacy courses.
TABLE XIV

NUMBER OF DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED TO STUDENTS
OF THE UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI1,
BY LEVEL, FIELD OF STUDY, AND AWARD: 1957-72*

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1. Information provided by the University of Science and Technology, Kumasi.
2. Includes Bachelor of Science in Agriculture and Bachelor of Science in Engineering.
3. Includes Bachelor of Science in Architecture and Bachelor of Science in Engineering.

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.. means that source gave no figure.

1Formerly the Kumasi College of Technology, 1951-61, and the Kwame Nkrumah University of Science and Technology, 1961-66.

2Includes building and planning.

3B.Sc. (Engineering) external degree of the University of London.

4Intermediate Examination of the Royal Institute of British Architects.

5Intermediate Examination of the Town Planning Institute.

6Final examinations of the professional engineering institution in the United Kingdom.

7Intermediate Examination of the Royal Institute of Chartered surveyors.
By 1966 the university's total enrollment, which was about 700 in 1961-62, had doubled. It declined to 1,300 in 1967, fluctuating in subsequent years between 1,300 and 1,500 until it stabilized at 1,765 in the 1972-73 academic year. By 1982-83, UST's enrollment had increased to 2,979. Before 1963 the number of degrees, diplomas and certificates awarded each year was less than 100, but by 1971 it rose to 400 (9).

Enrollment distribution.—Most of UST's students are male. By 1972-73, the institution had 119 women students (6.7 per cent), and 42 non-Ghanaians (2.4 per cent)—16 from Nigeria and the remainder from 10 other countries, including three outside Africa. About 68 per cent of the students were in first degree programs, 20 percent in subdegree-level diploma and certificate courses, 6 per cent in graduate programs, and 5 per cent in pre-degree courses. By 1982-83, UST's enrollment had increased to 2,979, 449 of whom were women (15 per cent) (16).

During the 1960s a sizable proportion of the student body was enrolled in preliminary or pre-degree courses since the university was unable to recruit enough students from secondary schools who were adequately prepared for its scientific and technological courses. Accordingly, the number of predegree students increased to 664 (46 per cent)
in 1965-66 before falling to 255 (16 per cent) in 1968-69 and fewer than 100 (less than 6 per cent) in the subsequent years, as shown in Table XV.

**TABLE XV**

**ENROLLMENT IN PRE-DEGREE COURSES, 1961-72**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Pre-degree Students</th>
<th>Percent of Student body</th>
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<tr>
<td>1961-62</td>
<td>306</td>
<td>43.2</td>
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<tr>
<td>1962-63</td>
<td>200</td>
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</tr>
<tr>
<td>1963-64</td>
<td>249</td>
<td>30.8</td>
</tr>
<tr>
<td>1964-65</td>
<td>435</td>
<td>39.6</td>
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<tr>
<td>1965-66</td>
<td>664</td>
<td>46.1</td>
</tr>
<tr>
<td>1966-67</td>
<td>424</td>
<td>32.4</td>
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<tr>
<td>1967-68</td>
<td>300</td>
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<tr>
<td>1968-69</td>
<td>255</td>
<td>16.5</td>
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<tr>
<td>1969-70</td>
<td>84</td>
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<tr>
<td>1970-71</td>
<td>51</td>
<td>3.8</td>
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<tr>
<td>1971-72</td>
<td>64</td>
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<tr>
<td>1972-73</td>
<td>85</td>
<td>4.8</td>
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By 1969, the problem of preparing students for degree programs was solved. Speaking at a UST congregation meeting, the vice-chancellor declared,

... 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 would soon be discontinued in order to make room for students undertaking undergraduate courses (9, p. 26).
Graduates.—UST's output corresponds roughly with the pattern of its enrollment distribution. The faculty of engineering produces about thirty to forty graduate engineers annually, in addition to more than fifty diploma and certificate holders in 1970 and 1971. By 1971 the number of graduates from the Faculty of Agriculture had increased to sixty-four. By 1970–71 engineering was the institution's largest faculty and enrolled the largest number of students, undergraduate and graduate students, and architecture ranked second. In 1971–72, however, the Faculty of Science became the largest faculty.

The University of Cape Coast

Total enrollment and output growth.—The basic data on the numbers of students enrolled at the University of Cape Coast and the number of degrees and diplomas awarded to these students appear in Tables XVI and XVII.
### TABLE XVI

**NUMBER OF STUDENTS AT THE UNIVERSITY OF CAPE COAST\(^1\),
BY LEVEL AND COURSE OF STUDY: 1962-63--1971-72\(^*\)**

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<td>522</td>
<td>860</td>
<td>990</td>
<td>1122</td>
<td>1041</td>
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<td>330</td>
<td>380</td>
<td>397</td>
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<td>478</td>
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<td>650</td>
<td>611</td>
<td>362(223)(^4)</td>
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1. Means source gave no figure.
2. University College of Cape Coast until 1971-72.
3. Arts preliminary and first degree courses.

*Figure in parentheses is the number of students after the expulsion of 159 students in the 3rd year of the B.Sc. General (Education) degree course. The preceding figure is the number before the expulsion of these students.*
TABLE XVII

NUMBER OF DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED TO
STUDENTS OF THE UNIVERSITY OF CAPE COAST1 1964-72*

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</tr>
</tbody>
</table>


1 means that source gave no figure.

1 University College of Cape Coast until 1971-72.

2 B.Sc. Honours in Mathematics only.
Enrollment increased from 155 its first academic year to 1,122 in 1967-68. In 1968-69, the total fell to 1,041 due to the elimination of the associate certificate course and a decline in numbers of science students. Similarly, enrollment dropped 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 to 638 after the expulsion of 159 students in the third (final) year of the science degree course. The reason for their expulsion appears in the subsequent pages. With the exception of 1970, when the university dismissed most of its final year B.S. (Education) degree students, the number of graduates steadily increased each year and finally exceeded 300 in 1972. In 1982-83, the institution had an enrollment of 1,610, 351 of whom were women (22 per cent) (7).

Enrollment distribution.---During the period 1962-63 through 1971-72, most of the university's students were enrolled in preliminary arts and science courses and arts and science degree courses, as opposed to postgraduate or other programs. By 1971-72, less than 10 per cent of enrollment was in graduate programs.

Due to the lack of qualified candidates with the G.C.E. Advanced-Level Certificate required for direct entry to degree programs, the university obtained most of its potential degree candidates from students with G.C.E.
Ordinary-Level qualifications and gave them a year of preliminary training to prepare them for the degree courses. During the university's first four years, the proportion of students enrolled in preliminary courses ranged between 34 and 57 per cent and between 19 and 27 per cent during the next six years. In 1971-72, one-fifth of the total student body was enrolled in preliminary courses and almost three-fourths in degree courses proper.

It is reported that in the 1964-65, 1965-66, and 1966-67 academic years, the institution admitted a large number of preliminary science students who were presumably not qualified for sixth form work. They outnumbered students in arts courses, and during this period—between 1965-66 and 1968-69—science preliminary and degree students outnumbered all art preliminary and degree students. The balance was reversed by 1970-71, however, since the emphasis on science was never reflected in the institution's output pattern.

Failures in science.—By the end of the five years from 1962-63 through 1966-67 many of the university's preliminary science students had failed, at the end of the course leaving a handful of graduates who received the B.S. Education. The incomplete listing in Table XVIII presents the number of preliminary arts and science students enrolled and the number of graduates during the period 1962-1972.
### TABLE XVIII
NUMBER OF PRELIMINARY SCIENCE AND ARTS STUDENTS ENROLLED AND NUMBER OF GRADUATES AT THE UNIVERSITY OF CAPE COAST, 1962-63—1971-72*

<table>
<thead>
<tr>
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<th>Third</th>
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<td>1965-66</td>
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<td>1966-67</td>
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<td>1967-68</td>
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<td>1968-69</td>
<td>100</td>
<td>110</td>
<td>175</td>
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<td>1969-70</td>
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<td>2181-22</td>
</tr>
<tr>
<td>1970-71</td>
<td>3102</td>
<td>58</td>
<td>61</td>
<td>64</td>
</tr>
<tr>
<td>1971-72</td>
<td>4114</td>
<td>70</td>
<td>63</td>
<td>57</td>
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<table>
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<th>Second</th>
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<tr>
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<td>48</td>
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<td>1964-65</td>
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<tr>
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<tr>
<td>1966-67</td>
<td>86</td>
<td>48</td>
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</tr>
<tr>
<td>1967-68</td>
<td>100</td>
<td>5108</td>
<td>110</td>
<td>62</td>
</tr>
<tr>
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<td>1969-70</td>
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<td>88</td>
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<tr>
<td>1970-71</td>
<td>128</td>
<td>138</td>
<td>135</td>
<td>77</td>
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<tr>
<td>1971-72</td>
<td>89</td>
<td>245</td>
<td>114</td>
<td>127</td>
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</tbody>
</table>

TABLE XVIII—Continued

1Includes new students not previously enrolled in the institution.

2One Hundred Eighty-one before and twenty-two after expulsions.

3Includes 38 in first year, 64 in second.

4Includes 25 in first year, 87 in second.

5Includes new students not previously enrolled in the institution.

6Includes six external candidates.

During the five year period from 1966 through 1970 Cape Coast graduated 143 degree holders qualified to teach science in the secondary schools, representing only 21 per cent of the total number of students who were enrolled in the preliminary science course in academic years 1962-63 through 1966-67. Hence, the failure rate was 80 per cent. The class of 270 preliminary science students in 1965-66 lost 15 per cent of its number by the time they reached the third year of the course in 1968-69, but 168, or 73 per cent, of the remaining 230 did not pass their final examination or obtain degrees. The number of graduates—sixty-two—constituted only 23 per cent of the entering class four years earlier. 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.

As a result of the large number of failures in 1969, the college became the target of fierce public criticism, which led to its decision to intensify teaching and examinations in the science faculty in a way that had never been attempted before and to implement various other measures, including many recommendations by the Special Committee of Inquiry appointed by the government to investigate the previous years' science results (3). In 1968-69 the university instituted an examination to assess the academic progress of students in the second year, but, due to serious questions concerning their academic progress, it was postponed until December, 1969. Most of the students—159 of the 181 who were then in the third year of study—refused to take the examination and instigated a general student demonstration in support of their stand (3, p. 141). As a result they were suspended in January 1970, and sent home for the rest of the academic year. Subsequently, they were offered the opportunity of returning and taking the same examination at the end of the academic year. Of the twenty-two students who remained to take the final science degree examination in June, 1970, only 9 passed. In addition, 24 out of the other 159 students passed the examination and were offered a place in the the third year in 1970-71.
This predicament forced the university to cut its enrollment figures from 1968-69 as indicated in Table XVIII. Debating on this issue, E. A. Boateng, the principal of the University of Cape Coast, said during a convocation in July, 1970, "the institution must never again make the mistake of pushing quantity over quality" (3, pp. 140-141). To alleviate the problem, the university instituted a new policy of admitting fewer and better qualified students to the preliminary science course, strengthened their preparation and also promoted from year to year only students who were performing well. This policy improved the university's situation, as reflected in the number of science graduates of 1971 and subsequent years. Between 1966 and 1972, 517 B.A. Education degrees were awarded, or about 78 per cent of the total 666 students who took the Arts preliminary course in the seven academic years 1962-63 through 1968-69, representing a loss rate of about 22 per cent (Table XVIII).

Tables XIX and XX present the numbers of students enrolled in Ghana's three universities and the numbers of degrees, diplomas and certificates awarded from 1981-82.
TABLE XIX
NUMBERS OF STUDENTS ENROLLED**, JANUARY 1982-83 ACADEMIC YEAR*

<table>
<thead>
<tr>
<th>University of Ghana</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td>2,550</td>
<td>194</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>589</td>
<td>51</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,139</td>
<td>245</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution of Students by Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Institute of African Studies</td>
</tr>
<tr>
<td>Law</td>
</tr>
<tr>
<td>Medicine</td>
</tr>
<tr>
<td>School of Administration</td>
</tr>
<tr>
<td>Science</td>
</tr>
<tr>
<td>Social Studies and Arts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University of Science and Technology</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td>2,530</td>
<td>--</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>449</td>
<td>--</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,979</td>
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<table>
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<tr>
<th>Distribution of Students by Faculty</th>
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<tbody>
<tr>
<td>Art</td>
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<tr>
<td>Economics and Sociology Sciences</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Science</td>
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<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

**Included in the figures for the University of Ghana are 190 postgraduate students, and 1,312 newly admitted students from other countries (69 countries) including nine from Nigeria, nine from the United Kingdom, five from the United States, and four from Zambia.

Included in the figures for the University of Science and Technology are: 144 Postgraduate students, 984 new admissions, and 22 students from other countries.

Included in the figures for the University of Cape Coast are 40 Postgraduate students, 466 new admissions, and 5 students from other countries.
## TABLE XX
CERTIFICATES, DIPLOMAS AND DEGREES AWARDED*

<table>
<thead>
<tr>
<th>University</th>
<th>Degree/Diploma/Certificate</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Ghana</td>
<td>(1981-82 Academic Year)</td>
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</tr>
<tr>
<td><strong>Certificates</strong></td>
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<tr>
<td>Archives Administration</td>
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<tr>
<td>English Proficiency</td>
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<td>Librarianship</td>
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<td>Prison Administration</td>
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<td>Statistics</td>
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<td><strong>Undergraduate Diplomas</strong></td>
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<td>Accounting</td>
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<td></td>
</tr>
<tr>
<td>Archives Administration</td>
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<td>Agric. Mechanization</td>
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<td>Animal Health</td>
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<td>General Agriculture</td>
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<td>Social Administration</td>
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<td>Statistics</td>
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<td>General Music</td>
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<td>B.Sc. Agriculture</td>
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<tr>
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<td>and Technology</td>
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<td>(1982-83 Academic Year)</td>
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<tr>
<td>(Academic Year 1981-82)</td>
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CHAPTER BIBLIOGRAPHY


CHAPTER IV

ADMINISTRATIVE PRACTICES AND PROCEDURES

Introduction

This chapter describes the administration of higher education in Ghana. Accordingly, emphasis is placed on the organizational structure and the methods and procedures involved in financing and planning at the three universities. Preceding this is a brief description of the historical background of the National Council for Higher Education, which is the governmental body responsible for monitoring higher education in Ghana, and the Scholarship Secretariat, which is responsible for granting scholarships to students in Ghana's higher educational institutions.

Administrative Organization

Background

Since Ghana has a centralized governmental structure, education, like most organizations, is sponsored by the government. The central government establishes policies and passes legislation directing the organization and administration of the formal educational system, including pre-university and university institutions.
The centrally enacted Education Act of 1961 provided for the organization and administration of pre-university education, while another piece of legislation was enacted to establish Ghana's three universities and provide for their administration (32). Under its provisions, the universities are autonomous, which makes them internally self-governing institutions.

The Act for each university designates its governing body as the university council whose chairman is appointed by the government. Each Act also grants the council broad powers in directing the institutions. The universities are almost entirely funded by the government.

In 1957, after P. H. Stroughton succeeded David Balme as Principal of the University College of Ghana, he proposed to the government in 1959 that the institution be granted a full university status, thus ending its "special relationship" with the University of London and enabling the University of Ghana to award its own degrees, diplomas, and certificates. In response to this request, the government appointed an International Commission to inquire into and advise it on the future development of university education in Ghana in the light of transforming the University College of Ghana and the Kumasi College of Technology into an independent University of Ghana (26). The members of the commission included Kojo Botsio, then Minister of
Agriculture, as chairman, and D. A. Chapman, then Headmaster of Achimota School, as vice-chairman (14). Among the members of the commission were distinguished university figures, including three from Britain, two from the United States, one from the Soviet Union and one from Sierra Leone (15).

After traveling widely throughout the country and holding discussions on higher education with interested persons, the Commission presented numerous proposals to the government, which centered around two main questions (15):

1. What type of university structure would best meet the needs of Ghana? and

2. What would be the relationship between the university institutions and the government?

With regard to the first question, the commission recommended the establishment of two independent universities, namely, the University of Ghana at Legon and the Kwame Nkrumah University of Science and Technology in Kumasi. The governing structures of each university were to be the following:

1. A university council, composed of approximately one-third of government nominees, one-third persons selected by the institution's academic staff, and one-third of persons nominated by various educational bodies in Ghana as
the governing body of the university with the authority to appoint its staff;

2. A senate or academic board consisting of all heads of departments and two non-professorial representatives from each department to be responsible for academic affairs;

3. A chancellor, whose office, according to Botsio, was "a symbolic and ceremonial post" (15, p. 102); and

4. A vice-chancellor who would be the administrative and academic head of the institution.

Other parties involved in the administration are described later in this chapter.

In response to the second question, with the aim of ensuring the universities' autonomy in organization, teaching, and research in order to adequately serve the needs of the country, the commission recommended the establishment of the National Council for Higher Education and Research (16). This council was to act as a mediator between the two bodies. Its primary function was to decide what grants the government would give each university as well as to plan and coordinate higher education and research in Ghana.

**National Council for Higher Education (NCHE)**

In response to the recommendations of the Commission on University Education in 1961, the Ghanaian government agreed
to establish the National Council for Higher Education and Research in the following words:

In accordance with the recommendations of the Commission, the government will by legislative instrument establish a National Council for Higher Education and Research, which shall be concerned with the general direction and coordination of higher education and research, with the provision of funds therefore and with the preparation and supervision of a national training program to meet Ghana's needs of high-level manpower. The National Council will accordingly have oversight of the work of the two universities, the University College of Cape Coast and the Ghana Academy of Learning, which will all be independent bodies. It will also take over the responsibilities and functions of the National Research Council and the Scholarship Secretariat (28, p. 99).

Consequently, in 1962, the government established the National Council for Higher Education and Research (NCHER) and attached it to the office of the President. However, the responsibility for higher education was later given to a separate Ministry of Science and Higher Education, sometimes called Ministry of Higher Education and Research. Its primary functions included planning, coordinating, and financing higher education, as well as making decisions concerning what grants the government would give each university. In addition to these responsibilities, the NCHER was also entrusted with policy matters affecting the universities and other related bodies, including the following:

1. University of Ghana;
2. University of Science and Technology;
3. University of Cape Coast;
4. School of Administration (University of Ghana);
5. Institute of Statistical, Social, and Economic Research;
6. Institute of African Studies (University of Ghana);
7. Institute of Adult Education (University of Ghana);
8. College of Art (University of Science and Technology);
9. Ghana Universities Press;
10. Ghana Medical School (University of Ghana);
11. Ghana Museums and Monuments Board;
12. Volta Basin Research Program (University of Ghana);
13. Institute of Chartered Accountants (Ghana)
14. Ghana Science Association;
15. Ghana Atomic Energy Commission;
16. Ghana Academy of Arts and Sciences;
17. Encyclopedia Africana Secretariat;
18. University Research Stations;
19. Institute of Population Studies (University of Ghana);
and
20. Institute of Journalism and Communications (University of Ghana) (16, p. 6).

In 1966, after the coup and subsequent change in Ghana's government, the National Liberation Council, as part of its general reorganization of 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, designating it as the Higher Education Division of the Ministry of Education.

In September, 1966, the Education Review Committee appointed by the NLC government recommended in its interim report that a council for higher education be established to advise the government on all matters relating to higher education and to serve as a university grants committee. The government quickly approved of this body's establishment, but the undertaking was suspended as a result of the protests from the universities, who wanted an opportunity to comment on certain features of the decree for establishing the Council. They did not want to repeat the bitter experience they endured under the former regime, which often gave directives without consultation with the parties involved (31, p. 52). Thus, in December, 1966, the NLC approved a deferment of the implementation of its directives and appointed a Special Committee on the Delimitation of Functions of University Institutions to examine the views of the universities which were reported in February, 1967. In its White Paper on the report of the Education Review Committee the government accepted the recommendations of the special Committee and decided to establish the National
Council for Higher Education, including a University Grants Committee (31).

The Commissioner for Education appointed an international committee, the Ghana Universities Visiting Committee, chaired by A. R. Vick (the Vick Committee) to advise the government on this and other university matters, from January, 1969, to April, 1969. This Committee made changes in the terms of reference for the National Council, giving it a more purely advisory role than had previously been proposed by the Special Committee. Thus, through the promulgation of the NCHE Decree, 1969 (NLCL 401) the NCHE was reestablished on September 27, 1969 (23), generally following the recommendations of the Ghana Universities Visitation Committee and the Kwapong Education Review Committee (24).

Its inauguration was suspended for three years, however, due to the delay in appointing all of the members even though the chairman, Modjaben Dowuona, who was also the Chairman of the Council for Scientific and Industrial Research, had already been appointed. Finally, on December 15, 1972, after the promulgation of the NCHE (Amendment) Decree 1972, the National Redemption Council Decree NRCD 34, and the Amendment No. 2 Decree (NRCD 92), the NCHE was formally inaugurated (22). The terms of reference of the new Council and its composition, as laid down by the
relevant decrees of 1969 and 1972, followed closely the recommendations of the Kwapong Education Review Committee of 1967 and the Vick Visiting Committee of 1969, which in general correspond broadly with those applicable to other university grants committees (16, p. 23).

The NCHE's purposes were

1. To advise the government on the development of higher education in Ghana taking into account the country's total national resources, needs, and development of programs;

2. To serve as a university grants committee by inquiring into the financial needs of the institutions and making recommendations to the government concerning block allocations of funds to individual university institutions to help meet their operating costs and grants-in-aid for capital expenditure;

3. To receive the audited accounts of each university institution at the end of its fiscal year;

4. To advise the institutions on applications for and acceptance of external aid;

5. To advise, generally, on conditions of service for the staff of the institution and on the standards the institutions should observe, particularly with regard to building areas and costs;
6. To collect, collate, and make available information relating to the university institutions; and to formulate the strategic policy that should guide higher education (33).

During the inauguration of the Council on December 15, 1972, the Finance Committee, which acted as the NCHE's General Purposes Committee and was composed of the Chairman and six other Council members, was also established (16, p. 3). Apart from examining the annual estimates of the various institutions and organizations under the Council, it transacted on behalf of the Council such other business as interviewing candidates for appointment to senior posts, inspecting development projects in the universities, and advising on the conditions of service for staff of the university institutions. Other committees within the council included the Committee for Strategic Policy on Higher Education, which was to formulate the Strategic Policy on higher education covering the following issues:

1. The concept of higher education,
2. The objectives of higher education,
3. Areas of higher education,
4. The priorities and delimitation of functions of university institutions in the context of the manpower needs of Ghana, and
A reappraisal of the systems by which government finances universities in Ghana (16, p. 12).

The membership of the council, as requested by the amended decree, was to consist of (1) a chairman with wide academic and administrative experience; (2) three persons with extensive experience in university work; (3) the vice-chancellors of the three universities, who had no vote on matters relating to government allocations to the universities; (4) one person representing the Council for Scientific and Industrial Research; (5) one person representing the Ghana Academy of Arts and Sciences; (6) two persons representing industry and commerce; (7) one person having wide experience of schools in Ghana; (8) two other distinguished citizens, one of whom must be a woman; and (9) three assessors representing, respectively, the Commission of Education, Economic Planning, and Finance. Listed below were the members of the Council at the time of its inauguration on December 15, 1972:

1. A chairman with a wide academic and administrative experience: Modjaben Dowuona;

2. Three persons with extensive experience in university work: Justice K. Bentsi-Enchill, Joe Reindorf, and Rev. Prof. C. G. Baeta;

3. The vice-chancellors of the three universities:
   Professor A. A. Kwapong (University of Ghana),
Dr. E. Evans-Anfom (University of Science and Technology), and Professor E. A. Boateng (University of Cape Coast);

4. One person representing the Council for Scientific and Industrial Research: Dr. K. Sape;

5. One person representing the Ghana Academy of Arts and Sciences: Dr. D. A. Akyeampong;

6. Two persons representing industry and commerce:
   H. A. Dodoo and Dr. D. D. Fordwor;

7. One person with a wide experience of schools in Ghana:
   J. J. Mensah-Kane;

8. Four other distinguished citizens of Ghana: Dr. J. J. Achiriga, Joe Appiah, K. B. Ayensu, and Dr. J. L. Wosornu;

9. Three assessors representing, respectively, the Commissions of Education, Economic Planning, and Finance: J. W. L. Mills (Chief Education Officer), Mary Chinery-Hesse (Principal Secretary, Ministry of Economic Planning), and R. S. Aggrey (Principal Secretary, Ministry of Finance) (16, p. 2).

Boards of institutions and organizations on which the NCHE is represented are the following:

1. The Councils of the three universities and their Committees (Finance, Development Tender Board, Superannuation),
2. The Council for Scientific and Industrial Research;
3. The Museums and Monuments Board,
4. The Ghana Atomic Energy Commission,
5. The National Manpower Board,
6. The Center for Scientific Research into Plant Medicine,
7. The Ghana Medical School Council,
8. The Encyclopedia Africana Secretariat, and

Although in 1969 NLC Decree 401 vested ministerial responsibility over the NCHE in the prime minister, this responsibility was transferred after the change of government in 1972 to the Commissioner for Education, Sports, and Culture. However, responsibility for the NCHE was restored to the head-of-state when E. Evans-Anfom, Vice-Chairman of the University of Science and Technology, became the Council’s Chairman in March 1974 (16, p. 9).

Considering how higher education in Ghana was organized before and after the establishment of the NCHE, George (10) states that responsibility for university affairs was assigned to various agencies of the central government—more often than not, to an agency other than the ministry responsible for pre-university education. Unfortunately, due to governmental oversight and inadequate coordination of
the universities' activities, they were unable to develop without duplication and waste, and they could not meet Ghana's manpower need. Hence, university affairs were transferred from the Ministry of Education to the Office of the President in 1959, and subsequently, to the NCHE in 1962.

After the establishment of the latter body, however, according to the 1967 report of the Education Review Committee, the functions of coordination were not satisfactorily discharged by the Council or by its successor, the Ministry of Higher Education and Research. The major problems enumerated in the report were the following:

1. The nature of the control exercised by the ex-president, who also served as chancellor of all the universities and employed the Council mainly as an avenue for the transmission of directives to the university institutions (24, p. 5);

2. Inadequate coordination leading to separate planning and development by the various university institutions, each of which expanded and sometimes established faculties and departments without due regard for what was happening in the others or for the manpower requirements and the general educational needs of the country;
3. The universities' practice of making plans, individually, submitting the requests for subventions to the government, and, in a period of governmental encouragement and financial generosity but inadequate oversight, receiving much of what they requested;

4. Lack of effective manpower statistics and of a nationally formulated statement of manpower needs and goals that made effective long-term planning by the universities to meet manpower needs almost impossible (24, p. 95).

The Scholarship Secretariat

The Scholarship Secretariat was established as a separate organization at the beginning of 1960 and was attached to the office of the president and, later, to the country's successive heads of state. It is responsible for granting scholarships to students in higher educational institutions both within and outside Ghana (10).

Agencies and Officials Directing the Day-to-Day Administration of Ghana's Universities(4)

Government.--The Ghanaian government is the ultimate head of the administration of all three of the countries' universities. The government establishes policies and passes legislation regulating the universities. It executes its powers through the National Council for Higher Education.
National Council for Higher Education (NCHE).—The NCHE is "second in command" in the administration of higher education and plays an advisory role between the government and the universities. It also serves as a mediator between the two bodies.

University Council.—As previously stated, the university council is the most powerful administrative and policy making organization in each institution. It is the university's governing body, and its responsibilities include the control, management, and administration of funds granted to the university and taking final action on all matters of high-level policy and decision making in the institution. With the exception of students, every area and segment of the university is represented on the council. Its total membership is fifteen persons, balanced between lay representation and academic members (1, pp. 90-91):

1. Three principal officers of the university (which include the chancellor, the vice-chancellor, and the chairman of the university council) who are appointed by the chancellor;

2. Six lay members (four lay representatives of the government, appointed by the chancellor, one representative of the NCHE, and one representative of the heads of secondary schools in Ghana); and
3. Six academic members (two persons of professorial standing, two persons in non-professorial grades elected by members of the convocation of the university, one member of the senior staff of another university institution in Africa elected by the council, and one person distinguished in university affairs from outside Africa elected by the council).

Chancellor.—The hierarchy of power within each university is topped by the chancellor as the head of the institution. In accordance with the bills that established the University of Ghana and the University of Science and Technology, the head of state is the Chancellor of these institutions, whereas that of the University of Cape Coast is elected for a five-year term and may be reelected for similar periods in office.

The position of chancellor is a ceremonial one and does not involve any administrative duties. However, at the University of Ghana and the University of Science and Technology, the chancellor is involved in administration to some degree since, by virtue of his position, he is a member of the university councils, which are decision-making bodies. Thus, he does exercise such duties in concert with other members of the council, as well as presiding over its meetings when he is present. In contrast, the chancellor of the University of Cape Coast, by statute, is not a member of
the university council and therefore does not engage in any administrative duties, although he is permitted to participate in the council's deliberations.

**Pro-Chancellor.**—The position of pro-chancellor exists only at the University of Cape Coast, where this official is second in command and by statute, the chairman of the university council. His term of office is two years, and he may be reappointed. The pro-chancellor presides over university ceremonies in the absence of the chancellor, but his duties are somewhat limited.

**Vice-Chancellor.**—Each university has a vice-chancellor who is the second ranking officer in the administration of the university (except at the University of Cape Coast, where he is the third ranking officer). Upon the approval of the chancellor, a vice-chancellor is appointed by the university council. His tenure is fixed by the terms and conditions specified in the instrument of his appointment. His responsibilities include maintaining and promoting the good order and efficiency of the institution he serves, keeping custody of the seal of the institution and affixing it to documents in accordance with directions given by his council and the academic boards, and advising those bodies on all matters affecting policy, finance, government, and administration. The vice-chancellor has unrestricted rights
of attendance and speech at all meetings of his council and other university bodies, whether executive or advisory. Subject to the approval of the university council, a vice-chancellor may delegate any of his assigned responsibilities to senior members of the university. In the absence of the chancellor, the vice-chancellor presides during ceremonial activities at the University of Ghana and the University of Science and Technology; as previously noted, at the University of Cape Coast, the pro-chancellor carries out this function.

**Pro-Vice-Chancellor.**—The pro-vice-chancellor holds the third ranking position at the University of Ghana and the University of Science and Technology and the fourth at the University of Cape Coast. The pro-vice-chancellor is elected through a process which requires the vice-chancellor to submit the names of three persons holding professorial status and academic ranks to the university convocation. The convocation selects two of these three individuals and submits their names to the university council which, after consideration and final action, eventually chooses one to be the pro-vice-chancellor. The pro-vice-chancellor's tenure is usually two years, and he may be reelected for another period of two years. Upon his appointment to the position of pro-vice-chancellor's, a candidate who already holds an administrative post, such as a department head, does not
leave that post. When the pro-vice-chancellor's position is vacant, a professor is appointed by the university council to act as pro-vice-chancellor until a formal appointment is made. Similarly, the pro-vice-chancellor replaces the vice-chancellor in his absence due to illness or other causes.

Registrar.--The registrar is the fourth-ranking officer at the University of Ghana and the University of Science and Technology and the fifth at the University of Cape Coast. He is appointed by the council of the university he serves, and by statute he is responsible to the vice-chancellor. His responsibilities include,

...general administration and for providing secretarial services for the University Council, Academic Board, and other such bodies and Committees as may be prescribed by statutes (4, p. 10).

Since the registrar's responsibilities are very broad, he executes his duties through the deputy registrar, who performs through a network of assistant registrars.

Assistant Registrars.--Each university has several assistant registrars and each assistant registrar has a rank and an assigned specific area of responsibility, as described below:

1. Senior Assistant Registrar No. 1 is responsible for publicity and public relations;

2. Senior Assistant Registrar No. 2 is responsible for matters relating to senior and junior staff;
3. Assistant Registrar No. 1 is responsible for academic matters relating to admissions and examination;
4. Assistant Registrar No. 2 is responsible for offering assistance to the registrar on general matters;
5. Assistant Registrar No. 3 offers assistance to the registrar on appointments and promotions of Senior staff; and
6. Assistant Registrar No. 4 offers assistance to Assistant Registrar No. 1.

Chief Fiscal Officer.—The chief fiscal officer's position ranks on the same level as the Registrar and, likewise, he reports directly to the vice-chancellor. Below these two levels, the organizational structure varies somewhat from university to university. However, as observed by Brown (4), it is not uncommon to find officers in charge of personnel, development, maintenance, and other areas reporting to the registrar.

Academic Boards/Senate.—The academic board and senate are the next most powerful policy- and decision-making entities after the university councils at the University of Ghana and the University of Science and Technology. At Cape Coast University, the senate acts in the same capacity as the academic board. The responsibilities of these two bodies include "establishing educational policy and generally regulating the academic work in both teaching and research" (4, p. 12).
Similar to the university council, the membership of the academic board and the senate has a broad representation comprising twenty-four persons but no student participation. The two bodies report to their respective university councils.

Committees.—Each university has a number of committees that address varied areas of institutional operations. Student participation is generally encouraged on boards and committees that have a bearing on their welfare, such as the finance committee, bookshop board, library board, estate management committee, residence board, cafeteria management committee, and hospital management committee. Ultimately, the results of the work of these committees feed into the academic boards, the senate and/or the university council.

Faculty Organization.—Since each university has several faculties, individual lecturers and professors are not regarded as a single faculty of an institution but as the faculty of a particular area or discipline. Thus, faculty members are classified as follows:

1. Agriculture
2. Faculty of Architecture
3. Faculty of Science
4. Faculty of Law
5. Faculty of Education, and so forth.
Faculty Rank.—The five ranks are, from lowest to highest,

1. Assistant Lecturer,
2. Lecturer,
3. Senior Lecturer,
4. Associate Professor, and
5. Professor.

Although the essential components in the promotion process are not clear, the available information seems to indicate, without doubt, that promotions are based on the measure of the faculty members' competence in his chosen field of specialization as well as research and publication.

Student Representative Council (SRC).—The Student Representative Council serves as the spokesman for the entire student body. Its executives are a president, a secretary and a treasurer elected by the student body and hall representatives. The SRC has representatives serving on all university boards and committees concerned with student welfare, and it controls all student activities organized by clubs and societies. These societies and clubs are financed by a university grant through the SRC, which controls the disbursement of the funds.

Figure 1 is a schematic representation of the relationships among the agencies and officials that direct the day-to-day administration of universities in Ghana.
Fig. 1—Administrative Organization of Ghanaian Universities*

*Source: Constructed by researcher.
Financing the Universities

As noted by Dowuona, universities in the modern world are expensive in terms of both their capital and recurrent expenditures (7). Dowuona states that this circumstance resulted from the high specialization demanded of university staff and the quality and type of equipment and other facilities required for their efficient operation and performance. Furthermore, operating a university is relatively much more expensive in a developing country like Ghana than elsewhere because certain infrastructural facilities and services, without which universities cannot function, must be provided by them, whereas in developed countries such facilities and services are provided by the local authority or other agencies within the community. In Kwapong's opinion, one of the most significant points about an African university is that "it is a city in microcosm" (14, p. i). Hence, administrators are concerned not only with the academic aspects of the university, but with "housekeeping" on their campus, including provision of transportation, housing, medical services, and shops for teachers, staff, and students alike.

Consequently, due to the scarcity of resources and the growing demands of other sectors of the national economy—especially the primary, secondary, and middle levels of the educational system—financial exigencies are now one of the
greatest single factors facing African universities in their attempt to carry out their responsibilities. The financial bonanza that these institutions enjoyed during their early years is over, and it is, therefore, imperative, in the light of this problem for African universities to tighten their belts and streamline their financial management in order to reduce costs and maximize efficiency.

**Sources of Funds**

Ghana's universities are almost entirely funded by the government on an annual basis with grants-in-aid, based on the recommendations of the NCHE. Other sources of funding include the following:

1. Students' tuition fees, except in the case of private foreign students, are paid by the government through the Scholarship Secretariat. Students on study leave terms, however, pay university expenses from their salaries.

2. In October, 1974, at the beginning of the academic year, the government withdrew the grant of £100.00 (one hundred cedis) paid annually to each university student for books and out-of-pocket expenses and replaced it with a student credit scheme. Under this scheme the Ghana Commercial Bank, on the authorization of the government, granted loans of up to £300.00 and £500.00 per annum to undergraduate and graduate students, respectively (29).
These funds were made to cover their personal expenditures, including the costs of books and materials, a small subscription to student clubs, and examination fees. Loans were to be repaid to the bank after students completed their course of study, with no interest except a small service charge (16, p. 10).

3. Apart from the subventions granted to the universities and the free tuition enjoyed by students, the government, through the Scholarship Secretariat, pays a grant of £900.00 per annum per student to cover both board and lodging expenses. However, upon the establishment of the cafeteria system, popularly known as "Pay As You Eat" (PAYE), students in 1980 received about £21 per week for food, and the rest of the grant was paid to the halls for lodging fees (6, pp. 14-15).

4. Income is received for services rendered (e.g., accommodation charges).

5. Grants are made by various bodies other than the government, both within and outside Ghana.

The following Table XXI presents direct and indirect contributions made by the government and other bodies towards the recurrent and capital costs of the University of Ghana from its inception in 1948 to 1973 (7, pp. 14-15).
TABLE XXI

FUNDING AND RECURRENT AND CAPITAL EXPENDITURES OF THE UNIVERSITY OF GHANA, 1948-1973*

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<th>Funding</th>
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<tr>
<td>Direct grant by government</td>
<td>£55,137,477</td>
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<tr>
<td>Tuition Fees</td>
<td>7,962,866</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£63,100,343</strong></td>
</tr>
<tr>
<td>Income from services rendered</td>
<td>5,790,329</td>
</tr>
<tr>
<td>Grants by various bodies from within and</td>
<td></td>
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<tr>
<td>outside Ghana</td>
<td><strong>£8,391,545</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>£77,302,177</strong></td>
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<td>Academic and administrative buildings</td>
<td>£10,504,210</td>
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<td>Student accommodation and other student</td>
<td>12,084,800</td>
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<tr>
<td>facilities</td>
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<td>Housing:</td>
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<td>Senior Staff</td>
<td>2,499,704</td>
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<td>Other Staff</td>
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<td><strong>Total</strong></td>
<td>3,452,970</td>
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<td>(440 accommodation units)</td>
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<tr>
<td>Roads Utility Services</td>
<td></td>
</tr>
<tr>
<td>(22.25 miles of road, 1/2 million gallons</td>
<td>1,578,640</td>
</tr>
<tr>
<td>underground storage tank, sewerage plant, etc.)</td>
<td></td>
</tr>
<tr>
<td>Community and Welfare Services</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>262,858</td>
</tr>
<tr>
<td>Manciple's Organization and primary school</td>
<td>237,293</td>
</tr>
<tr>
<td>Police Station</td>
<td>262,225</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>662,380</td>
</tr>
<tr>
<td><strong>£28,232,000</strong></td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Of the university's total capital expenditure of £28,232,000, the Cocoa Marketing Board contributed £3,880,000, and outside bodies, including the Colonial Development and Welfare Fund and the Ford Foundation, contributed £1,016,000, for a total of £4,896,000, or 17 per cent of the total capital expenditure. Subsequently, recurrent expenditures were met by (1) direct grants from the government on an annual basis; (2) student fees, which, except in the case of private foreign students, were paid by the government; (3) income from services rendered; and (4) grants by various non-governmental bodies inside and outside Ghana.

In order to relieve the government of part of the cost of university education and to ensure some measure of financial autonomy for the universities, the Bradley Committee recommended the establishment of an endowment fund (7). Since there were no immediate prospects for private endowment, the government provided a grant of £4,000,000.00. Announcing this grant at the Legislative Assembly on March 3, 1954, then Prime Minister Nkrumah said "... the government are in no way seeking to cast their responsibilities in regard to financial assistance, but they are anxious to do everything in their power to ensure academic freedom" (7, p. 17). The endowment fund was invested in various securities abroad, but, as the government's need for foreign
exchange became pressing, these investments were replaced by local government stocks in 1962. A plan was made to invest the funds in property including office buildings in Accra, but it was not implemented. Thus, the endowment did not yield the benefit to the university that had originally been anticipated.

After the 1966 coup, Ghana’s military government the NLC, was overwhelmed by the continuously rising cost in general education and of university education in particular. The committee appointed to investigate this matter recommended that "tuition should continue to be free, while the cost of boarding and lodging should be paid by either the students, their parents or guardians" (25, p.10), as was done in secondary schools. Students who could not afford to pay board and lodging fees were not to be denied university education but, rather, be granted loans to assist them. The Student Loan Scheme, described earlier, resulted from this recommendation. The loans were interest free, and a period of up to twelve years was allowed for repayment (2). In addition, government awards were to be made to a percentage of qualified students taking certain priority courses. Although the Student Loan Scheme was accepted by the Progress Party Government after considerable deliberation (30), before it could be implemented it was abolished by the National Redemption Council Government, which overthrew the
Progress Party Government in 1972. Meanwhile, the board and lodging costs continued to escalate.

As of 1970-71, the government of Ghana was spending a total of NC 92 million on the formal educational system in recurrent expenditures alone and a total of NC 101 million in non-recurrent and development expenditures. Education consumed 22 per cent of the recurrent budget and 19 percent of the total recurrent and development budget of the country’s recurrent expenditures, by level of schooling, were distributed as shown in TABLE XXII.

TABLE XXII

GOVERNMENT RECURRENT, NON-RECURRENT AND DEVELOPMENT EXPENDITURES ON EDUCATION*

<table>
<thead>
<tr>
<th>Level of Schooling</th>
<th>Amount (millions of new cedis)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>24.0</td>
<td>26.2</td>
</tr>
<tr>
<td>Middle</td>
<td>12.4</td>
<td>13.6</td>
</tr>
<tr>
<td>Secondary</td>
<td>14.1</td>
<td>15.3</td>
</tr>
<tr>
<td>Teacher training</td>
<td>9.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Other pre-university</td>
<td>5.6</td>
<td>6.1</td>
</tr>
<tr>
<td>General Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Higher education</td>
<td>20.6</td>
<td>22.5</td>
</tr>
<tr>
<td>Other</td>
<td>3.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>91.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The approximate cost per student, based on the central government's 1969-70 budget, is shown in Table XXIII (21).

**TABLE XXIII**

**GOVERNMENT EXPENDITURE ON EDUCATION PER STUDENT, 1969-1970***

<table>
<thead>
<tr>
<th>Level of Schooling</th>
<th>Amount per pupil (new cedis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>20</td>
</tr>
<tr>
<td>Middle</td>
<td>20</td>
</tr>
<tr>
<td>Secondary</td>
<td>199</td>
</tr>
<tr>
<td>Teacher Training</td>
<td>443</td>
</tr>
<tr>
<td>Technical</td>
<td>317</td>
</tr>
<tr>
<td>University</td>
<td>2,962</td>
</tr>
</tbody>
</table>


**Procedural Steps in Financing**

According to 1974-75 report of NCHE, before 1975 each institution under its supervision submitted a draft estimate for the ensuing year to the Council's Secretariat approximately four months before the beginning of each financial year. The estimates were prepared under three headings: recurrent expenditure, non-recurrent, capital, or development expenditure, and equipment expenditure (16).

Recurrent grants covered items such as

1. The salaries and wages of both teaching and non-teaching personnel;
2. The operating cost of all existing academic and administrative buildings and estate offices, halls of residence, laboratories, libraries, and other facilities; and

3. The transportation of workers to and from the campus

Non-recurrent, capital, or development grants were reserved to support particular projects approved by the NCHE, including:

1. New buildings for academic and administrative departments and halls of residence,

2. Housing for the academic and non-academic staff,

3. Municipal facilities (e.g., roads, water tanks, sewerage plants, and the like),

4. Purchase of sites and properties, and

5. Payment of professional fees and furnishing of buildings not covered by new equipment grants.

The equipment grants were subventions given annually to the universities for these purposes:

1. To procure new equipment for teaching and research, and

2. To cover both the initial equipping of new buildings and replacement of existing equipment.
After all draft estimates were submitted, NCHE's Finance Committee scrutinized them on a line-by-line basis. The Council's secretariat then set up a meeting between the representatives of each institution and the Finance Committee. The main purpose of these meetings was to give the heads of each institution and the finance officers an opportunity to justify the requests made in their estimates, particularly with regard to new development.

After reaching a consensus on the draft estimates of each institution, the chairman of the Council, on behalf of all the institutions, presented them in a form of recommendations to the Budget Division of the Ministry of Finance and met with the Ministry of officials to discuss the Council's position on its recommendations. Subsequently, the estimates approved by the government were published. Table XXIV shows the sums budgeted by the universities for the year 1974-75, and the amounts recommended by the Council, and Table XXV presents the subventions or grants approved by the government in 1981-1982.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Vote for 1974-75</th>
<th>Request for 1974-75</th>
<th>Recommendation for N.C.H.E. 1974-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C.H.E. Secretariat</td>
<td>196,780.00</td>
<td>232,413.00</td>
<td>232,413.00</td>
</tr>
<tr>
<td>University of Ghana</td>
<td>6,770,330.00</td>
<td>6,815,271.00</td>
<td>7,268,539.12</td>
</tr>
<tr>
<td>University of Science and Technology</td>
<td>7,047,000.00</td>
<td>7,554,804.00</td>
<td>7,403,304.00</td>
</tr>
<tr>
<td>University of Cape Coast</td>
<td>4,955,000.00</td>
<td>6,343,523.00</td>
<td>5,277,978.20</td>
</tr>
<tr>
<td>School of Administration</td>
<td>537,000.00</td>
<td>537,000.00</td>
<td>537,000.00</td>
</tr>
<tr>
<td>Institute of African Studies (University of Ghana)</td>
<td>441,000.00</td>
<td>465,428.00</td>
<td>441,000.00</td>
</tr>
<tr>
<td>Institute of Statistical, Social and Economic Research</td>
<td>275,000.00</td>
<td>308,952.00</td>
<td>275,000.00</td>
</tr>
<tr>
<td>Institute of Adult Education</td>
<td>550,000.00</td>
<td>850,000.00</td>
<td>550,000.00</td>
</tr>
<tr>
<td>College of Art (U.S.T.)</td>
<td>564,000.00</td>
<td>569,680.00</td>
<td>564,410.00</td>
</tr>
<tr>
<td>Ghana Universities Press</td>
<td>50,890.00</td>
<td>50,890.00</td>
<td>50,890.00</td>
</tr>
<tr>
<td>Ghana Medical School</td>
<td>1,980,000.00</td>
<td>2,394,800.00</td>
<td>1,980,000.00</td>
</tr>
<tr>
<td>Ghana Museums and Monuments Board</td>
<td>550,000.00</td>
<td>691,080.00</td>
<td>550,000.00</td>
</tr>
<tr>
<td>Volta Basin Research Programme</td>
<td>77,000.00</td>
<td>87,000.00</td>
<td>77,000.00</td>
</tr>
<tr>
<td>Institute of Chartered Accountants</td>
<td>35,000.00</td>
<td>53,868.00</td>
<td>35,000.00</td>
</tr>
<tr>
<td>Ghana Science Association</td>
<td>11,000.00</td>
<td>13,100.00</td>
<td>11,000.00</td>
</tr>
<tr>
<td>Ghana Atomic Energy Commission</td>
<td>450,000.00</td>
<td>791,610.00</td>
<td>600,000.00</td>
</tr>
<tr>
<td>Ghana Academy of Arts and Sciences</td>
<td>49,000.00</td>
<td>49,000.00</td>
<td>49,000.00</td>
</tr>
<tr>
<td>Encyclopedia Africana Secretariat</td>
<td>80,000.00</td>
<td>80,000.00</td>
<td>80,000.00</td>
</tr>
<tr>
<td>University Research Station</td>
<td>440,000.00</td>
<td>434,000.00</td>
<td>440,000.00</td>
</tr>
<tr>
<td>Institute of Population Studies</td>
<td>78,000.00</td>
<td>93,200.00</td>
<td>78,000.00</td>
</tr>
<tr>
<td>Institute of Journalism and Communications</td>
<td>79,000.00</td>
<td>79,282.72</td>
<td>79,282.72</td>
</tr>
<tr>
<td>Total</td>
<td>25,256,000.00</td>
<td>28,494,901.72</td>
<td>26,579,817.00</td>
</tr>
</tbody>
</table>
### TABLE XXIV—Continued

<table>
<thead>
<tr>
<th>Institution</th>
<th>Vote for 1974-75</th>
<th>Request for 1974-75</th>
<th>Recommendation for N.C.H.E. 1974-75</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. N.C.H.E. Secretariat</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2. University of Ghana</td>
<td>445,820.00</td>
<td>3,526,000.00</td>
<td>1,182,000.00</td>
</tr>
<tr>
<td>3. Department of Housing and Planning Research, UST, Kumasi</td>
<td>80,000.00</td>
<td>115,200.00</td>
<td>115,200.00</td>
</tr>
<tr>
<td>4. University of Science and Technology</td>
<td>805,000.00</td>
<td>3,474,610.00</td>
<td>2,097,000.00</td>
</tr>
<tr>
<td>5. University of Cape Coast</td>
<td>477,000.00</td>
<td>1,090,000.00</td>
<td>636,500.00</td>
</tr>
<tr>
<td>6. Institute of African Studies</td>
<td>—</td>
<td>150,000.00</td>
<td>50,000.00</td>
</tr>
<tr>
<td>7. Institute of Statistical, Social and Economic Research</td>
<td>100,000.00</td>
<td>394,000.00</td>
<td>394,000.00</td>
</tr>
<tr>
<td>8. Institute of Adult Education</td>
<td>107,000.00</td>
<td>127,000.00</td>
<td>127,000.00</td>
</tr>
<tr>
<td>9. Ghana Universities Press</td>
<td>—</td>
<td>20,000.00</td>
<td>20,000.00</td>
</tr>
<tr>
<td>10. Ghana Medical School</td>
<td>75,000.00</td>
<td>700,000.00</td>
<td>229,000.00</td>
</tr>
<tr>
<td>11. Ghana Museums and Monuments Board</td>
<td>260,000.00</td>
<td>1,876,000.00</td>
<td>70,000.00</td>
</tr>
<tr>
<td>12. Ghana Atomic Energy Commission</td>
<td>—</td>
<td>1,879,000.00</td>
<td>500,000.00</td>
</tr>
<tr>
<td>13. Ghana Academy of Arts and Sciences</td>
<td>—</td>
<td>—</td>
<td>5,000.00</td>
</tr>
<tr>
<td>14. University Research Stations</td>
<td>50,000.00</td>
<td>265,000.00</td>
<td>200,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,499,820.00</td>
<td>14,010,430.00</td>
<td>5,725,700.00</td>
</tr>
</tbody>
</table>

| **EQUIPMENT**                                                              |                  |                     |                                   |
| 1. N.C.H.E. Secretariat                                                    | 21,880.00        | 54,780.00           | 54,780.00                         |
| 2. University of Ghana                                                    | 150,000.00       | 315,870.00          | 315,870.00                        |
| 3. University of Science and Technology                                    | 350,000.00       | 1,255,963.00        | 500,000.00                        |
| 4. University of Cape Coast                                               | 231,000.00       | 839,500.00          | 464,800.00                        |
| 5. Institute of Adult Education                                           | 87,100.00        | 150,000.00          | 105,000.00                        |
| 6. College of Art                                                         | 82,700.00        | 22,715.00           | 22,700.00                         |
| 7. Ghana Medical School                                                    | 100,000.00       | 230,000.00          | 120,000.00                        |
| 8. Ghana Museums and Monuments Board                                      | 91,000.00        | 136,000.00          | 66,000.00                         |
| 9. Ghana Atomic Energy Commission                                         | 67,000.00        | 154,805.00          | 107,000.00                        |
| 10. University of Research Stations                                        | 15,500.00        | 31,000.00           | 15,500.00                         |
| **Total**                                                                  | 1,196,180.00     | 3,265,000.00        | 1,831,850.00                      |


TABLE XXV

SUBVENTIONS TO THE UNIVERSITIES OF GHANA, 1981-82*

<table>
<thead>
<tr>
<th>University of Cape Coast (1981-82)</th>
<th>Total Income</th>
<th>Govt. Grant</th>
<th>Fees</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>₡42,416,598</td>
<td>96.2%</td>
<td>0.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>University of Ghana (1980-81)</td>
<td>₡52,928,201</td>
<td>96.8%</td>
<td>0.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>University of Science &amp; Technology (1981-82)</td>
<td>₡57,011,843</td>
<td>98.63%</td>
<td>0.07%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>


Planning for the Financing and Development of Universities

In his discussion of the main purpose of educational planning, P. H. Coombs, director of the International Institute of Educational Planners, writes,

It is the application of a systematic approach to determine more rationally how much of a nation's resources are to be used for education as against other important development needs such as industry, agriculture, housing and transportaion, distributing this limited resources among the various levels and types of education, finding the most efficient ways of employing these limited resources to achieve maximum educational results both quantitatively and qualitatively and also making education more effective and efficient in responding to the needs and goals of its students and society as a whole (5, p. 5).
This purpose cannot be achieved, however, without detailed knowledge of the expenses involved in financing each level and type of education, as well as the total cost of education in the country (8). Reliable methodologies for projecting these economic dimensions are also necessary.

Although policy-makers decide how much money is to be spent on education, how to spend it, and how to acquire the needed resources, they cannot make these decisions unless educational planners give them a clear picture of the costs and benefits of the various levels and types of education. Hence, the remainder of this chapter provides insight into the important aspects of educational planning by describing how they have been carried out by the universities of Ghana and the NCHE.

In order to ensure proper planning and development of the University of Ghana, at the time of its establishment, its officials adopted a five-year system of funding similar to that used by the universities of the United Kingdom. The college operated on this quinquennial system in 1948-1953, in 1953-58, and, to a much lesser extent, from 1959-64 until the system was discontinued in 1964 (7). During the latter half of the 1960's, however, government encountered difficulties in allocating resources for the university. As a result of these problems, the government was reluctant to take commitments for more than a year at a time, so Ghana's
universities came to be financed on an annual basis. As in other areas of the public sector, recurrent grants were paid monthly in advance, whereas capital grants were released only for work actually done (7, p. 16). As indicated by Griffith, this system of financing put a great strain on the institutions and caused some of them to resort to bank overdrafts even though the government disapproved of such undesirable practice of borrowing. Eventually, this predicament prompted the NCHE to seek a better system of funding which would enable both the government and the universities to achieve orderly development. The chairman of the Council, E. Evans-Anfom, invited experts such as R. C. Griffith, Director of the United Kingdom Inter-University Council for Higher Education Overseas (IUC), and N. P. Thomas, head of the Finance Branch of the United Kingdom's University Grant Committee (UGC) to visit Ghana. Griffith came to examine the structure of the Secretariat of the NCHE and to make recommendations for the improvement of its work on organizational structure and for a clear delineation of what the role and methods of operation of the NCHE should be. Griffith's visit lasted from March 21, to April 3, 1974. Among other things, his recommendations indicated that
The Council should strive to be an effective link between the government and the universities but, while it should endeavor to command the confidence of both parties, its role should be seen to be independent of both. The Council should devise government on the financial needs of the universities and on their development, thereby making it unnecessary for the government and the universities to have any direct communication with each other on these matters. There should be a reorganization of the Secretariat so that the Council would appoint its own permanent staff instead of relying on civil servants posted to the council’s Secretariat from time to time. The NCHE should work out systems of cost analysis to enable them to estimate in advance the financial requirements of each university so that the universities could plan over a period of three years at a time (83, p. 4).

Above all, the recommendations touched on the Council's role, cost and analysis of expenditures, planning student enrollment, capital planning, norms for budgeting, capacity of academic buildings, control of individual buildings, government-university Council relationships, Council membership, the role of Council chairman, delegation of powers, and non-university functions and the committee structure of the council (11).

As a follow-up to Griffith’s visit, Evans-Anfom visited the United Kingdom from June 15 to 23, 1974, to watch the U.K. Universities Grant Committee’s machinery in action (9). During his visit, Evans-Anfom arranged with both the Director of the IUC and the Chairman of the UGC to extend the scheme of short-term visits to and from the United Kingdom under IUC sponsorship to the NCHE. He also obtained approval from the UGC Chairman Thomas, head of the
organization's Finance Section, to visit Ghana so that he could help the officers of the NCHE and the three universities of Ghana to work out procedures for establishing unit costs and their application to university estimates and budget control procedures as practiced by the UGC.

In response to Evans-Anfom's request, the Secretary of the NCHE visited London during the first two weeks of September, 1974, to learn about the organizational structure of the UGC Secretariat, including the staff's schedules of assignment, and to familiarize himself with the structure and functions of the UGC's subcommittees so that he could return to Ghana with that experience and information to aid in reorganizing the Council's Secretariat.

Thomas arrived in Ghana during the third week of November, 1974, and spent three weeks carrying out his assignment there. Among his recommendations was the setting up of a management information section within the Secretariat of the NCHE which, for planning purposes, would offer relevant figures concerning finance, students, academic staff, physical capacity, empty spaces, new residential places and new academic faculties under construction and when they will be completed, census information on future numbers of the age groups relevant to university entrance, data from the Ministry of Education on
the percentage of the relevant age group who have obtained "A" Levels in the recent past, and so on (16).

**Cost Analysis**

From the perspective of the overall planning and financial control in education, Ghana's previous system of estimating university cost was deficient in the sense that it was not accompanied by the relative figures on student numbers that are "the only available measure of the workload of a university." These statistics are used in calculating unit cost, which is also regarded as "the best available tool for comparison and control purposes, both as between different universities for the same year and for particular universities in successive years (16, p. 24). There are several types of unit cost, including, faculty unit costs, administrative unit costs, library unit costs, and unit costs of municipal services. Unit costs are calculated by dividing the total expenditure of an institution or faculty by its relevant number of students. According to Thomas (33), unit costs are always different for apparently similar activities (as shown in the categorization in Appendix F) for three reasons.

1. There might be sound academic grounds due to the differences in the course offered by different universities.

2. Inconsistencies may remain in the data, even under improved arrangements designed to secure consistency.
3. One university may be performing more efficiently than another.

In any university, the unit cost of enrolling extra students, referred to as "marginal costs" in a faculty or department, should be about 75 to about 85 percent less than the unit costs of existing students unless the department is a new one. This also applies to unit costs of library, administrative, or other university activities.

Faculty unit cost is established by counting students in a faculty on a load basis rather than by their subjects of study. For example, a student belonging to the Faculty of Science is counted as 0.8 on the Faculty of Science and 0.2 on the Faculty of Arts because 80 percent of his teaching is given by the former faculty and 20 percent by the latter. The calculation of faculty unit costs is a good starting point for establishing staff and student ratios, which is the second major tool for management and planning in universities.

The credibility of unit cost analysis as a tool for planning depends on the consistency of practice among the universities with regard to categorization of the elements of existing expenditure and the various accounting methods used. This is to determine whether certain items—for example, halls of residence expenditure—are included as university expenditure or only indicated in the university's
budget, as illustrated in the Appendix D. In compliance
with the unit cost analysis technique, on November 14, 1974,
the registrars and the finance officers of Ghana's three
universities and pro-vice-chancellor of the University of
Science and Technology met at the State House to consider
such categorization. The officials calculated the various
key unit costs for each university in a recent completed
year for which adequate information was available. The
establishment of these key unit costs provided a valuable
tool for the Council and the government in handling the
financial aspects of forward planning for the country's
universities.

Allocation of Recurrent Estimates

Since the total enrollment and the broad mix of
students (i.e., the proportions of students taking different
types and levels of courses), expected in any university in
future years are the main, but certainly not the only,
factors determining its needs for financial and staffing
resources, they were later considered by the NCHE as the
basis for forwarding planning for Ghana's universities. The
Council considered not only the arithmetic calculations
associated with the unit cost analysis technique, as already
described, but the other factors listed below in planning
for the recurrent, capital, and equipment expenditures of
the universities.
After preliminary discussion with the government and the universities, the Council issued guideline letters to the universities as a basis for preparing their academic and other plans and estimates for the ensuing year. The estimates covered such matters as student numbers and the broad mix; academic issues such as the nature and extent of new departments or courses; and management objectives for areas such as the reduction of deficits on halls, control of municipal services, academic plans for new development, commentary on management matters, proposed future staff numbers in various departments, student load figures by faculty and department, and proposed future expenditure by categories. The estimates prepared by the universities were usually accompanied by tables listing expected and actual expenditures by categories, and with the help of the tables the Council was able to calculate existing unit costs.

After receiving these estimates and plans, the Council examined them before producing a submission of its own to the government. The submission was made in a form of a confidential document describing the needs of the universities. In addition to covering some of the items estimated by the universities, the Council's submission included items like inflation and government-approved salary increases. In order to be effective in helping the government to determine the size of a grant for forward
planning, the council had to maintain close contacts with the universities in order to ascertain, in general terms, the degree of expansion and change from their existing pattern of activities they could sustain. It also kept in touch with various government agencies concerning the supply of trained manpower needs and with secondary schools to obtain information of their output trends. With knowledge of the day-to-day activities of each university, the Council was able to encourage each institution to or discourage it from planning in a specific direction.

In making realistic projections of future educational costs and financial requirements, the observations made by Thomas and Coombs, Director of the International Institute of Educational Planning, concerning the application of unit cost and other factors were given adequate consideration. According to these two officials, unit costs are likely to change, partly for reasons beyond the control of educational authorities (such as rising prices due to inflation or general salary increases—referred to as "incremental creep"), and partly for reasons internal to the educational system over which at least some measure of control can be exerted (such as structural reforms, size and geographic distribution of new buildings, utilization of facilities, teacher classification and promotion policies, class size, and curriculum changes). Since it was not very satisfactory
merely to assert that the rate of inflation affecting university purchase was at a certain level without supporting evidence, the Council consulted with the Ministry of Finance and the Central Bureau of Statistics to inquire whether any index was already available that could be regarded as a measuring tool or could easily be adapted to measure the rate of inflation in university costs. As reported by the Ministry of Finance, such an index did exist, but keeping it up to date was problematic (19). Ultimately, NCHE’s submission to the government was presented under the following headings:

1. Incremental effect on emoluments at constant salary scales,

2. Cost of inflation, and

3. Academic development associated with student numbers and its expansion.

Other factors peculiar to Ghana and other developing countries to be considered in allocating recurrent expenditures were the following:

1. Expenditure on emoluments, which included the payment of 10 percent of senior members’ basic salaries as the Social Security superannuation contribution by the university as the employer;

2. Expenditure on partially furnished accommodation for all senior staff members as well as for a
sizeable number of the intermediate and junior staff, and additionally the paying of varying rates of allowance (the so-called "inconvenience allowance") to the members of the intermediate and junior staff not provided with university accommodation;

3. Expenditure covering the subsidy for students' board, lodging, and services in the residential halls since the charges for those services did not cover them fully;

4. Expenditure on subsidized services such as health care, lunches for intermediate junior staff, and transportation to and from work for junior staff living outside the university campus;

5. Cost for maintaining the buildings, roads, grounds and gardens of the campus and the provision of security services for residential, teaching, and other buildings; and

6. Expenditure involved in manpower development, which is essential for a developing country like Ghana. This expenditure was in the form of provision for the further training of selected graduates by means of scholarships and fellowship, mostly to overseas universities, and in the form of in-service and outside training for intermediate and junior staff.
For ten years, ending in 1972-73, the total provision rose from £119,970 to £308,106 annually, in a total of 94 awards (7, p. 16).

**Allocation of Capital or Non-Recurrent Estimates**

The capital requirements of the universities were determined primarily by using the student number objectives which largely governed the recurrent grant proposals presented to the government by the Council. The universities used the general preliminary guidelines. Under this system, buildings had to be completed before they were used to meet approved needs. The forward building program included only site works, not equipment, and consisted, essentially, of three elements:

1. The completion of buildings and works already approved and started;

2. The construction of new buildings, as necessary, to provide for new students or new subjects; and

3. The replacement or adaptation of existing buildings because of obsolescence or a change of use.

Building programs were organized on a "starts" basis in which, after the approval for a building was issued by the NCHE, money for its completion was also guaranteed and the expenditure was spread over several years. The basic control of what went on was, therefore, shifted from the context of an annual expenditure to control of when building
started, since this was much more closely related to forward academic planning than was the annual expenditure for buildings as a whole. In short, if every university knew in advance when it would be able to complete buildings already started and also had a certain amount of money available for contracts for specified new buildings each year, it would at least know where it stood. Better still, if the government also knew what its financial commitments were likely to be for each of the years covered by the "starts" program, it would be able to assess, in view of advice from the NCHE, what extra "starts" it could afford for subsequent years in addition to its previous obligations.

Norms governing building costs.—Since the application of norms from other countries, was not useful in Ghana, the NCHE worked out its own, employing an analysis of past expenditure and past standards of building as well as consultations with the universities and the government. In estimating the cost of buildings, the following factors were taken into consideration: the maximum expenditure per square foot on different types of buildings, maximum sizes of rooms for different purposes, and space allowances for circulation areas, laboratories, staff houses, and student common rooms based on local practice and experience. Thus, these norms were also used in assessing equipment grants. Other norms applied were expressed on a cost per unit basis,
namely, the expenditure per square foot; and others on a student unit basis; i.e., so much expenditure per student; and still others were expressed in area terms or room space per student. For example, student residences were based on 100 square feet of room space per student whereas lecturers were allowed about 75 square feet of space in their office (16).

Control of New Buildings.—After a new building or other capital project was included in an approved forward building program for a university, a decision was required as to how its costs were to be controlled thereafter until completion. It was desirable for the council to lay down a cost limit for the project based preferably on standards and norms, when available. In addition, the university had to ensure that its architect and contractors conformed to the guidelines set. Each unit cost had to relate to the same size of the building, which had to be built for the approved sum of money. Following this, the NCHE transferred control of the building to the university, but in some instances the council was called upon to consider an increase in the cost limit or otherwise vary the specifications of the building as originally approved.

Capacity of Academic Buildings.—Before the council was able to assess with complete confidence the needs, as
put forward by the universities, for new academic buildings
to house additional students, to enable new academic
departments to be created, or to undertake other new
activities such as new institutes or research projects, it
had to verify that existing buildings were being fully
utilized. The Council accomplished this task, in con-
junction with the universities, by surveying the capacity of
existing buildings, particularly in the academic area.
Moreover, the encouragement given by the council to the use
of multipurpose laboratories and pooling of lecture rooms
throughout the universities increased the capacity of space
without new buildings, as noted in the Report on Space
Utilization and Capacity produced by the University of
Science and Technology in March 1972 (20). For example, if
a university, with Council supports, desired to create a new
department—such as Genetics—and so wanted a new building
and equipment, some rearrangements might be made in the
physics building, if it had vacant space, to house the new
department for some years. This helped to reduce the number
of new buildings (11).

Allocation of Equipment Estimates

Before April 1, 1968, grants for the purchase of
equipment for teaching and research were available only for
the initial equipping of new accommodations. Universities
had to fund further replacement and renewal of equipment
from their recurrent income. Under the new system, each university was provided with an annual sum of money fixed for a period of years in advance. However, the size of the grant varied with the number of students, the nature of the student mix, and the extent of the research effort being undertaken in each university.

Planning the Universities' Development

In determining the budget for the universities, the Council considered not only the plans submitted by the individual universities themselves but other factors such as the demand from students for university places, national needs for qualified graduates, and the likely availability of resources. The Council was, therefore, closely concerned with the pattern of the future size and balance of the universities, in terms of both student numbers and resources. The Council formulated a broad central strategy of development for the universities as a whole and for each university within that whole. To be effective, the Council stayed in a close and continuing dialogue with the universities, on the one hand, with the government on the other in collecting and analyzing a wide range of statistics about university numbers and costs and in giving universities as clear and positive guidance as possible about the pattern of development envisaged (11).
The following information is pertinent to the administration and planning of the universities (3):

**Academic year.**--the University of Ghana has three terms in its academic year (October 9-December 19, April 23-July 3, and July 16-August 15), the University of Science and Technology has two of about sixteen weeks each (January-May and May-September), and the University of Cape Coast has three of about ten to twelve weeks each (September/October-June/July).

**Residence halls.**--The University of Ghana has six residence halls:

1. Akuafo (men/818),
2. Commonwealth (men/706),
3. Legon (men/950),
4. Mensah Sarbah, men and women (901),
5. Volta (women/429), and
6. Medical School Hostel, men and women, (177).

The University of Science and Technology has five halls:

1. Unity and
2. University (480 combined), and
3. Republic,
4. Independence, and
5. Queen Elizabeth (600 combined).
The University of Cape Coast has four halls:
1. Adehye (women/143),
2. Atlantic (men and women/262),
3. Oguaa (women/417), and

Annual tuition fees.—The University of Ghana’s annual tuition fees are as follows:

Certificate course—€2500 for Ghanaians (€909 for other Africans, €818 for non-Africans), Subgraduate Diplomas—€3750 (€1363, €2727), First Degrees—€6250 (€2212, €4545), Postgraduate Degrees/Diplomas—€7500 (€2727, €5454), and Affiliate Students €2500 (€909, €1818).

Other fees per term are: Bench—€300 (€100, €200), Occupational—€625 (€227, €454), and Graduate research—€300, (€100, €200) for first three years and €150 (€50, €100) per term and thereafter.

The room and board fee is €5000 per year.

At the University of Science and Technology, tuition is free for Ghanaians, whose fees are covered by government scholarships. Tuition for other Africans is as follows: Certificate courses—€1,000, Diplomas—€1,500, First Degrees—€2,500, and Postgraduate €3,000.

For non-Africans, tuitions fees are: Certificate—€2,000, Diplomas—€2,625, First Degrees—€3,500, and Postgraduate—€4,375.
Tuition is also free for Ghanaians at the University of Cape Coast. For other Africans, tuition fees are: £2,500 for the First Degree and £3,000 for the Higher Degree; for non-Africans, the fees for these degrees are £3,500 and £4,375, respectively. The boarding and lodging fee is £1,200, and student clubs charge £10 as acceptance fee on admission as well as a £100 special deposit refundable at the beginning of the second term. Finally, a deposit of approximately £15 is required against damage and laboratory breakage, and the like.

Publications.—The University of Ghana produces the following publications: Calendar (annual), Annual Report, University of Ghana Reporter (fortnightly), University Newsletter (fortnightly), and Forum (student publication).

The University of Science and Technology produces Official Calendar (biennial; free), Annual Reports, Journal of the University of Science and Technology, Recorder (monthly), Newsletter (monthly), R. P. Baffour Lectures (annually), Focus, and a magazine from each hall, published each term.

The University of Cape Coast's publications are: University Calendar (annual), Annual Report, Gazzette (monthly), Bulletin (weekly), Student Handbook (occasional),
Statistics on the University of Cape Coast (annual), Oguaa Educator (twice a year), Asemka, Aluta (SRC bulletin), Citadel, Thunder, Telstar, and the Whip (student publication, occasional).
CHAPTER BIBLIOGRAPHY


CHAPTER V

THE ROLE OF SUCCESSIVE GHANAIAN GOVERNMENTS IN THE DEVELOPMENT OF HIGHER EDUCATION

Higher education, which was established in Ghana through the efforts of nationalists, missionaries, and the British government and was initially administered by the British colonial authorities, eventually came under the control of successive Ghanaian governments after the country gained its independence in 1957. In 1951, before independence, the first African government, after gaining considerable power, expanded the educational facilities inherited from the British and also impelled the institutions, especially those of higher education, to adapt their programs to the needs and development of Ghana as a whole (24). This action was taken in response to the continuous increase in pressure for adaptation from the public, the press, and the parliament during the period 1948–63 (6).

Their complaints were based upon the manifestations of African nationalism in the following areas:

1. Academic standards in which European legacy was willingly accepted.
2. Africanization of staff (i.e., the replacement of expatriate staff by Africans—although the Africans welcomed expatriate teachers and research workers, they wanted administrative posts to be Africanized.

3. The content of the curriculum, in which the pressure of African nationalism was manifested in two forms.

a) Priorities in the curriculum were out of phase with Africans' need for high-level manpower. The people had become impatient with the British traditions of clerkly and literary education which emphasized Christian religious knowledge, Latin, Greek, ancient history, pure science, theoretical teaching, and fundamental research, while applied science and technology, which were urgently needed for Ghana's development, were ignored and placed in institutions below university status such as polytechnics and colleges of arts and sciences at Kumasi and Zaria, Nigeria.

b) The curriculum had no roots in indigenous African culture and caused higher and even secondary education to be disruptive of the stability of African society by alienating Africans from the core of their culture; the land, the village, and the family (6, pp. 53-59). The public, therefore, wished to incorporate into undergraduate courses materials
concerning the indigenous cultures of tropical Africa, including religion and customary law, cultivation of crops and care of animals, traditional political systems with their subtle checks and balances, philosophies and codes of behavior, languages, folklore, and music and dance (6, pp. 53-59).

This chapter, therefore, is concerned with the activities of successive governments which had significant impact on the development of higher education in Ghana. The various governments under discussion—in chronological order—are the Convention People's Party (CPP), chaired by Nkrumah; the National Liberation Council (NLC), headed by Joseph Ankrah and later by Kwasi Afrifa; the Progress Party (PP), headed by Kafi Busia; the National Redemption Council (NRC), later known as the Supreme Military Council (SMC) and chaired by Ignatius K. Acheampong and later by Akuffo; the Armed Forces Revolutionary Council (AFRC), chaired by Jerry John Rawlings; the People's National Party (PNP), headed by Hila Liman; and the present Provisional National Defensive Council (PNDC), also led by Jerry John Rawlings.

The Convention People's Party (CPP):
March, 1957 - February, 1966

After achieving a considerable measure of internal government for the Gold Coast in 1951, Nkrumah and the
Convention People's Party placed great emphasis on the expansion of educational facilities at all levels. According to George (15), this was a response to a pre-1951 promise which led in large measure to the CPP's election. Aside from this political pressure, the leaders of the new government held a firm conviction that formal education was the primary means of bringing about change and development as well as the keystone of a people's life and happiness as well as the road to progress (3), they were also aware of the insatiable demand for increased school facilities founded in the individual African's view of education as the road to employment in the modern sector (15). During his last address to the old legislative council, shortly before midnight on March 5, 1957, Nkrumah declared boldly to the world what his domestic and foreign policy would be, and he extrapolated into the future to predict what the development of the University College of Gold Coast as well as the tremendous expansion of primary education might yield by 1987, by asserting,

We must seek an African view to the problems of Africa. This does not mean that Western techniques and methods are not applicable to Africa. It does mean, however, that in Ghana we must look at every problem from the African point of view. Throughout Africa, in all probability the single largest factor in the low productivity of labor is chronic ill health due to tropical disease and to malnutrition directly caused by the restriction which tropical conditions place on the variety of food available.

... Our whole educational system must be geared to producing a scientifically-technically minded
people. Because of the limitations placed on us, we have to produce out of necessity, a higher standard of technical education than is necessary in many of the most advanced countries of the Western world. At first sight it might seem that the problems of an adequate educational system are beyond the resources of this country. I do not think they are, provided we approach our problem in a strictly realistic manner.

I believe we can turn our disadvantages to our advantage. For example, the problem of public health, animal health and agriculture is the intention of the Government to set up in due course, in conjunction with our university institutes for research into problems such as these. Since in all probability these problems could be better studied in Ghana than almost anywhere in the world, we believe that institutes dealing with the problems of tropical medicine would obtain international support . . . . I believe that one of the most important services which Ghana can perform for Africa is to devise a system of education based at its university level on concrete studies of the problems of the tropical world . . . . It will be the policy of the government to turn the University College into a full fledged university. This university will be the co-ordinating body for educational research, and we hope that it will eventually be associated with research institutes dealing with agriculture, biology and the physical and chemical sciences which we hope to establish.

We are very proud that today in a country of five million inhabitants there should be nearly half a million children enjoying primary education. We must, however, provide further outlets for these children and give them an opportunity to learn something of engineering, tropical agriculture and one of the problems of tropical medicine and hygiene. Only with the population so educated can we hope to face the tremendous problems which confront any country attempting to raise the standard of life in a tropical zone (30, p. 97).

Since higher educational institutions cannot survive without a constant supply of students from pre-university institutions, it is appropriate, when analyzing a government's contributions to the development of higher education,
to discuss pre-university institutions as well. Since the CPP was the first African government to achieve a considerable measure of internal control in the Gold Coast in 1951, this year is regarded as the baseline for the analysis of educational expansion and change in Ghana under an African rule. During this period the country's educational system was still a small structure consisting of some 3,000 primary schools enrolling about 312,000 pupils. Moreover, these schools were unevenly distributed throughout the colony, and many were operated by missionary bodies without assistance from public funds. Table XXVI shows the 1951 distribution of schools and pupils in the Gold Coast by categories as well as schools that are government and non-government assisted.

Based on the estimate in the 1947 Annual Report on the Gold Coast (4, p. 54), during Governor Burns' tenure, it was projected that twenty to twenty-five years might be required to provide a six-year course of primary education for the colony's 490,000 school-age children, of whom 90,000 were currently attending school (37). Nkrumah's government, however, endeavored to accelerate the process of educational expansion at the elementary level to accomplish this goal within the period 1952-1957 (25, p. 14).
### TABLE XXVI

**DISTRIBUTION OF PUPILS IN LEVELS OR TYPE OF SCHOOL, REGION, GOVERNMENT, AND NON-GOVERNMENT ASSISTED SCHOOLS, 1951**

<table>
<thead>
<tr>
<th>Level or type of school</th>
<th>Total</th>
<th>Schools Government and Assisted</th>
<th>Unaided</th>
<th>Total</th>
<th>Pupils Government and assisted</th>
<th>Unaided</th>
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<tbody>
<tr>
<td>Total</td>
<td>3,196</td>
<td>1,660</td>
<td>1,536</td>
<td>311,414</td>
<td>226,010</td>
<td>85,404</td>
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<td>Primary and middle</td>
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<td>1,622²</td>
<td>1,451</td>
<td>300,705</td>
<td>220,535³</td>
<td>80,170</td>
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<tr>
<td>Primary</td>
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<td>1,083</td>
<td>1,450</td>
<td>234,492</td>
<td>154,360</td>
<td>80,132</td>
</tr>
<tr>
<td>Middle</td>
<td>540</td>
<td>539</td>
<td>1</td>
<td>66,213</td>
<td>66,175</td>
<td>38</td>
</tr>
<tr>
<td>Secondary</td>
<td>62</td>
<td>13</td>
<td>49</td>
<td>6,901</td>
<td>2,937</td>
<td>3,964</td>
</tr>
<tr>
<td>Teacher Training</td>
<td>20</td>
<td>20</td>
<td>—</td>
<td>1,916</td>
<td>1,916</td>
<td>—</td>
</tr>
<tr>
<td>Technical</td>
<td>41</td>
<td>5</td>
<td>39</td>
<td>1,892</td>
<td>622</td>
<td>1,270</td>
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**SCHOOLS**

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<tr>
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<th>Colony</th>
<th>Ashanti</th>
<th>Northern Territories</th>
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<tbody>
<tr>
<td>Total</td>
<td>3,196</td>
<td></td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>Primary and middle</td>
<td></td>
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</tr>
<tr>
<td>Secondary</td>
<td>3,073</td>
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</tr>
<tr>
<td></td>
<td>41</td>
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¹ Includes correspondence courses
² Includes correspondence school
³ Includes correspondence course in health and social work

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333
### TABLE XXVI—Continued

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<thead>
<tr>
<th></th>
<th>Colony and Ashanti</th>
<th>Colony</th>
<th>Ashanti</th>
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<tr>
<td><strong>Pupils</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>311,354</td>
<td>305,191</td>
<td></td>
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<tr>
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<td>234,942</td>
<td>229,248</td>
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<td>71,754</td>
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<td>Middle</td>
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<td>65,463</td>
<td>47,244</td>
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<td>Teacher Training</td>
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<td></td>
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<td>Technical</td>
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<td><strong>Schools</strong></td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,932</td>
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<td>2,043</td>
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<tr>
<td>Primary</td>
<td>3,115</td>
<td>2,118</td>
<td>1,575</td>
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<tr>
<td>Middle</td>
<td>718</td>
<td>512</td>
<td>398</td>
<td>114</td>
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<tr>
<td>Secondary</td>
<td>53</td>
<td>44</td>
<td>39</td>
<td>5</td>
</tr>
<tr>
<td>Teacher Training</td>
<td>22</td>
<td>13</td>
<td>10</td>
<td>3</td>
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<tr>
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### Pupils

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<tr>
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<th>T-V-T</th>
<th>Ashanti</th>
<th>Northern Territories</th>
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<td>308,064</td>
<td>237,035</td>
<td>71,029</td>
<td>113,739</td>
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<td>182,912</td>
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<td>53,843</td>
<td>45,702</td>
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<td>6,392</td>
<td>5,831</td>
<td>561</td>
<td>569</td>
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<tr>
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<td>1,285</td>
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<td>1,531</td>
<td>80</td>
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<tr>
<td>Area</td>
<td>Population in 1948</td>
<td>Enrollments in 1951</td>
<td>Enrollments in 1952</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary</td>
<td>Middle</td>
<td>Secondary</td>
<td>Primary</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Colony and TVI&lt;sup&gt;5&lt;/sup&gt;</td>
<td>55.0</td>
<td>67.2</td>
<td>71.4</td>
<td>--</td>
<td>71.3</td>
</tr>
<tr>
<td>Colony</td>
<td>43.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>54.2</td>
</tr>
<tr>
<td>T-V-T</td>
<td>12.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>17.1</td>
</tr>
<tr>
<td>Ashanti</td>
<td>20.0</td>
<td>30.6</td>
<td>27.5</td>
<td>--</td>
<td>26.7</td>
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<tr>
<td>North. Terr.</td>
<td>25.0</td>
<td>2.2</td>
<td>1.1</td>
<td>--</td>
<td>2.0</td>
</tr>
</tbody>
</table>


<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.
<sup>3</sup>As of 1952
<sup>4</sup>Trans-Volta-Togoland.
<sup>5</sup>Including the Norther Section of Togoland.
The Accelerated Development Plan for Education

As a result, in August, 1951, the government launched an Accelerated Development Plan for Education and allocated to it a large part of the funds available for the general development of the country. This was a capital development plan initially intended to cover a five-year period but later extended to cover a six-year period, from fiscal year 1951/52 through 1956/57, and in the subsequent Consolidation Development Plan, which was another capital development plan, covering the fiscal years 1957/58 through 1958/59 (25). Although the facilities for all levels and types of pre-university education—including primary, middle, secondary, technical, and teacher training—were to be greatly expanded, the primary aim of the Accelerated Development Plan was to "provide as soon as possible, a six-year basic primary course for all children at public expense" (25, p. 1). In order to accomplish this goal, the following five major steps had to be taken as of January 1, 1952.

1. A large number of new classrooms were built.
2. All of the colony's formerly unaided schools were reviewed and approved for public funds.
3. Tuition fees were abolished in all publicly supported primary schools so that this expense would not prove to be a stumbling block to anyone. With the exception of
the North, however, parents still had to pay for books, which entailed a cost of between 15 and 30 shillings per year (30, p. 84).

4. A large number of pupils who had completed ten years of schooling but had no training as teachers were hired as "pupil teachers" to help staff the classrooms until more trained teachers could be produced.

5. Teacher training colleges were rapidly expanded to accelerate the output of trained teachers. This was done by temporarily suspending the four-year certificate course for middle school leavers with a two-year Certificate B course (15, p. 37).

Table XXVII gives an overview of enrollments in public educational institutions of various levels and types in 1951, before the Accelerated Development Plan was launched; in 1957—the year in which Ghana achieved independence and in which the six-year period of the extended First Development Plan ended; and in 1959, the year in which the period of the Consolidation Development Plan ended. Overall, the country spent about 17 1/2 million on education during First and Second Consolidation Plan periods (1951-59).
TABLE XXVII

THE SCHOOL ENROLLMENT PRIOR TO ACCELERATED DEVELOPMENT PLAN AT INDEPENDENCE, AND THE YEAR THE ACCELERATED DEVELOPMENT PLAN ENDED--1951, 1957, AND 1959*

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>1951</th>
<th>1957</th>
<th>1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>154,360</td>
<td>455,749</td>
<td>465,290</td>
</tr>
<tr>
<td>Middle</td>
<td>66,175</td>
<td>115,835</td>
<td>139,984</td>
</tr>
<tr>
<td>Secondary</td>
<td>2,937</td>
<td>9,860</td>
<td>11,111</td>
</tr>
<tr>
<td>Technical</td>
<td>622</td>
<td>3,057</td>
<td>2,872</td>
</tr>
<tr>
<td>Teacher Training</td>
<td>1,916</td>
<td>3,873</td>
<td>4,274</td>
</tr>
<tr>
<td>University</td>
<td>208</td>
<td>783</td>
<td>1,134</td>
</tr>
<tr>
<td>Total</td>
<td>226,218</td>
<td>589,153</td>
<td>624,575</td>
</tr>
</tbody>
</table>


Second Development Plan

In 1959, the CCP government launched a second five-year capital development plan for fiscal year 1959/60 through 1963/64. As stated in the plan,

it was the aim in the First Consolidation Development Plan 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 (45, p. 37).

The aim of the Second Development Plan was to *provide secondary school places for approximately 10 per cent of the number of pupils in each region potentially eligible to enter secondary schools by increasing the annual intake of
students into government-aided secondary schools from 2,200 to 6,000. This was to be achieved by:

1. Opening thirty-four new schools constructed with government funds;

2. Opening other new schools constructed by the Ghana Educational Trust, which was established by Nkrumah and endowed by the Cocoa Marketing Board with the sum of £2.5 million for the purpose of establishing secondary schools that were truly national institutions adapted to the requirements of the new nation (12);

3. Expanding or rehousing eighteen government-aided schools; and

4. Recognizing as efficient and extending government aid to certain schools that were not within the public system.

Apart from devoting more than half of the Plan's expenditures to secondary education—specifically for the building of thirty-four new schools—the plan also called for:

1. Expanding and reorganizing the technical education system to train larger numbers of students and introduce more advanced courses;

2. Establishing a technical teacher-training program in Kumasi, which was to be the first of its kind in West Africa;

3. Founding a University of Ghana, of which the University College of Gold Coast and the Kumasi College of
Technology would be constituent colleges, and providing £G3.6 million (Ghana Pounds) for further construction at the two institutions;

4. Providing free compulsory primary and middle school education throughout the country;

5. Continuing of the policy of special central government financial assistance to the poorer northern region of the country by the allocation of the sum of £G510,000 to construct primary and middle schools; and

6. Eliminating untrained teachers in the schools (44).

As noted by George (15), the central government’s capital expenditures on specific levels and types of education varied from one level to another during this plan period, as shown in Table XXVIII.

**TABLE XXVIII**

**GOVERNMENT’S CAPITAL EXPENDITURE ON VARIOUS LEVELS OF EDUCATION, DURING THE SECOND DEVELOPMENT PLAN, 1959-1964**

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Ghanaian Pounds (in Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and middle schools</td>
<td>510</td>
</tr>
<tr>
<td>Secondary schools</td>
<td>6,915</td>
</tr>
<tr>
<td>Technical institutions</td>
<td>1,500</td>
</tr>
<tr>
<td>Teacher-training colleges</td>
<td>746</td>
</tr>
<tr>
<td>University institutions</td>
<td>3,600</td>
</tr>
<tr>
<td>Schools for the handicapped</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13,351</strong></td>
</tr>
</tbody>
</table>

The Seven-Year Plan

In February, 1962, the CPP government suspended the Second Development Plan and launched an ambitious Seven-Year Development Plan for National Reconstruction and Development to cover the fiscal years 1963-64 through 1969-70 (19). In this plan, the government declared that 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" (46, p. 142).

The goals of the plan were to be achieved in two ways

1. By reorganizing elementary education and reorienting its upper cycle, reducing the length of general education from ten to eight years (and later from eight to six years) and supplementing it with a two-year course at a continuing school where 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. This objective was to be met by constructing a larger number of continuing schools and reequipping existing middle schools with technical education facilities to be catered for by local authorities and expanding teacher training colleges.

2. By laying heavy emphasis on expanding secondary education and post-secondary education and technological and managerial training in technical institutions and
universities to meet the needs of the expanding industrial, agricultural, and other sectors of the economy as envisaged in the plan. This was to be accomplished by 1) greatly increasing secondary school enrollment—intake was to rise to 10,000 in 1964 and to 22,000 in 1970; total enrollment was to rise to 35,000 in 1964 and to 78,000 in 1970; and output was to rise to 3,500 in 1964 and to 14,000 in 1970; and 2) establishing new technical institutions and training a larger number of students as senior technicians who would fill positions midway between those held by engineers and managers and by skilled laborers.

The government, therefore, planned to invest a total of $664 million in education, distributed as shown in Table XXIX.

**TABLE XXIX**

**DISTRIBUTION OF PROPOSED GOVERNMENT EXPENDITURE IN THE SEVEN-YEAR DEVELOPMENT PLAN**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Ghanaian Pounds (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary education</td>
<td>1.8</td>
</tr>
<tr>
<td>Secondary education</td>
<td>30.5</td>
</tr>
<tr>
<td>Teacher training</td>
<td>17.3</td>
</tr>
<tr>
<td>Technical education</td>
<td>4.6</td>
</tr>
<tr>
<td>Universities</td>
<td>9.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64.0</strong></td>
</tr>
</tbody>
</table>

During the early 1960s, enrollment at the university increased at a greater rate than that in elementary schools, although the number of university students was comparatively very small. In 1965-66, enrollments in both secondary schools and universities were three to eight times those of 1959, while those at the primary school level were more than twice and those at the middle school level were less than twice the 1959 totals.

Ghana’s public secondary school system expanded rapidly in the 1960s, through the absorption of private schools and schools built by the Ghana Education Trust rather than through the construction of new facilities. Out of the sixty-six schools added between 1959 and 1965-66, at least twenty-four were Ghana Educational Trust schools and twenty-five were formerly private institutions. The total number of public secondary schools increased from thirty-nine in 1959 to 105 in 1965-66, while enrollments rose from 11,000 to 42,000 in the same year. This far exceeded the entry target set in 1959 in the Second Development Plan (5,600 by January, 1956). At this level, too, educational expansion outpaced the output of Ghanaian teachers, and their numbers were supplemented with overseas recruitment and the use of Peace Corps volunteers. Nevertheless, the lack of Ghanaian teachers continued to be a major obstacle in the expansion program, for the establishment of schools
in remote areas was far ahead of the rate at which graduate teachers were produced.

During this period, higher education was reorganized and greatly expanded. The two existing higher education institutions, the University College of Ghana, and the Kumasi College of Technology, became full-fledged universities, and the University College of Cape Coast was established to train secondary school teachers. These institutions rapidly increased their enrollments in the years preceding the overthrow of the CPP government.

Based on enrollment figures in Ghana's universities and pre-university institutions at the beginning and the end of Nkrumah's regime, it is estimated that between 1960/61 and 1965/66, the number of students in the universities increased from 1,184 to 4,256, a total which was twenty times the 1951 figure. Secondary school enrollment rose fourteen times by 1966, and the totals in primary and middle schools were seven and four times the 1951 figures, respectively. The public school system achieved phenomenal growth both by absorbing private schools and building many new facilities. The 1951 system of about 17,000 schools enrolling 226,000 students increased to almost 11,000 schools with an enrollment of 1.5 million students in 1966. Enrollments at every level expanded as shown in Table XXX (15).
TABLE XXX
INCREASE IN STUDENT ENROLLMENT, 1951-1966

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>1951</th>
<th>1957</th>
<th>1959</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>154,360</td>
<td>455,749</td>
<td>465,290</td>
<td>1,137,495</td>
</tr>
<tr>
<td>Middle</td>
<td>66,175</td>
<td>115,831</td>
<td>139,984</td>
<td>267,434</td>
</tr>
<tr>
<td>Secondary</td>
<td>2,937</td>
<td>9,860</td>
<td>11,111</td>
<td>42,111</td>
</tr>
<tr>
<td>Technical</td>
<td>622</td>
<td>3,057</td>
<td>2,782</td>
<td>4,156</td>
</tr>
<tr>
<td>Teacher training</td>
<td>1,916</td>
<td>3,873</td>
<td>4,274</td>
<td>15,144</td>
</tr>
<tr>
<td>University</td>
<td>208</td>
<td>783</td>
<td>1,234</td>
<td>4,267</td>
</tr>
<tr>
<td>Total</td>
<td>226,218</td>
<td>589,153</td>
<td>624,575</td>
<td>1,471,407</td>
</tr>
</tbody>
</table>


During this period, education became tuition free at every level of the public school system, and the government also began to provide free textbooks for all children in primary, middle and secondary schools.

At the elementary level, untrained teachers constituted 65 per cent of the total teaching staff, and secondary schools remained heavily dependent upon expatriate teachers. Throughout the school system education remained almost entirely academic, and more and more pupils were leaving middle schools after receiving only a general education, and then swelling numbers of the unemployed. The public, therefore, demanded more space in the secondary sector, such as technical, vocational and commercial schools to help these unemployed middle school leavers to acquire trades and
skills. This eventually left the universities below their capacity.

An overview of expenditures on education by the end of the CPP regime, indicates that, because the CPP assumed certain responsibilities that had previously been borne by parents and local governments, recurrent expenditures totaled £67 million, fourteen times the total in 1951. Educational expenditures accounted for more than a quarter of the government's total operating budget, constituting its largest single item. Of the total recurrent expenditure on education, more than 26 percent went to higher educational institutions and to scholarships for students in higher educational institutions both at home and abroad. Although the government invested a great deal of money in the rapid expansion of education at all levels, secondary schools failed to turn out sufficient numbers of qualified graduates in science, thus hindering the universities from producing the scientific manpower Ghana needed.

In response to the various pressures exerted by the public on higher education, especially on the newly established University College of Ghana, the Nkrumah government took direct responsibility for ensuring its adaptation to Ghanaian society. In an effort to meet the demand for applied science and technological education, Nkrumah elevated the Kumasi College of Technology to full-fledged
university status in 1961. At his installation as Chancellor of the institution, Nkrumah stated, "the ivory tower concept is dead, and may it rest in peace.... Everything will be done to place a premium on the study of science and technology" (5, p. 8).

As for the incorporation of a study of indigenous cultures into the curriculum, the Institute of African Studies was expanded to offer courses to all first-year university students, based on all aspects of the African experience (23). In addition, a two-year postgraduate course leading to the master's degree in African studies was established, including classes in African languages; history; social, political and economic institutions; music; dance; and art (6, p. 62-63). With regard to this development, Nana Nketia, one of the intellectual leaders of Ghana, declared,

> For the first time since Ghana's contact with Europe in the fifteenth century, the two universities in Ghana are serving as places where creative and conscious reflections on life in Africa are being undertaken (22, p. 5).

In response to those who doubted whether such studies had a place in a university, Vice-Chancellor O'Brien of the University of Ghana, stated,

> We should be very clear... that this tendency to develop the Institute of African Studies is not a restrictive one.... Far from being a restriction, the development of interest in African studies is a liberation: it is a liberation from that older and narrow concept of a university in Africa as being a
place whose main and virtually sole function was to pursue European studies and disseminate European knowledge in Africa. In transcending that narrow concept and in becoming more fully a part of its environment, an African university becomes not merely more fully African but also fully a University (50, p. 18).

When asked by a columnist in the 1951 Daily Graphic whether higher education should be related to local history and traditions, Nkrumah replied upon opening the Akuaf Hall residence at the University College of Ghana in 1956, "we must in the development of our University bear in mind that once it has been planted in African soil it must take root amidst African traditions and culture" (9). Thus Nkrumah went ahead with his plans to establish several institutes adapted to the needs of Ghana.

Concerning the standards and quality of education, the government was in favor of preserving the British heritage since it did not want its higher education institutions to award any cheapened form of degrees. In this regard, after his installation as Chancellor of the University of Ghana, Nkrumah said,

A new institution making its reputation cannot afford any weakening of standards... By the attainment of university status I trust that both the lecturers and the students of the College have accepted the challenge to maintain the high academic standards already set (19, p. 2).

In 1955, however, some agitation arose as the university continued to raise its entrance requirements in conformity with those of the University of London, despite
its many vacancies. This practice was attacked by the head of the School of Agriculture, at the Kumasi College of Technology, who asserted in 1958,

... since we in this country are not producing agriculturalists for any other country there is very little part in basing our course on an imaginary universal or even British standard. The whole question of standards is relative ... A standard in education is high enough when it can adequately serve the needs of the community for which it is designed. As the problems become complex so the standard must grow to deal with them (10, p. 12).

With reference to the Africanization of the university, it is important to note that, although this process was one of the most delicate and sensitive points of contact between Africans and Europeans, it was not merely a color problem and was not confined to Africa (6, p. 49). According to Ashby, a similar situation occurred in Australia before World War II, when a selection of key posts in government service and 40 per cent of the professorships in Australian universities were held by British citizens. In 1953 when the expatriate heads of the University made it difficult for Ghanaians to gain teaching appointments, the Legislative Assembly called for the replacement of various expatriates with Africans (13, p. 4).

Among the causes for the move toward Africanization in Ghana, it can be argued that, since the university was the focus of national life, reflecting the social, economic, cultural, and political aspirations of the people, it was
desirable to have Ghanaian teachers in the institution instead of expatriates, who, according to Ashby, looked to Britain for advice and guidance.

Unrest resulted from a similar experience in the University of Ibadan, Nigeria. While addressing an Action Group in Congress in Calabar in 1958, Chief Awolowo said,

Our political independence would be a sham . . . if the control of much of our intellectual life remained in foreign hands and the policy of our premier University College is decisively influenced by bodies established outside this country (6, p. 51).

Also, during a Foundation Day ceremony at Ibadan in 1961, Nnamdi Azikiwe supported the concept of Africanization by asserting, "There is no need for us to be running helter-skelter abroad begging for experts to come and guide us when we have indigenous experts galore in Nigeria" (6, p. 51).

Yet, despite this policy, since African leaders were far too intelligent and eager for their people to progress and to dispense with the expertise and influence of the West completely, foreign experts who come to Africa in the right spirit—for example, to teach, build roads, and train accountants, quality surveyors, statisticians, and the like—were welcome. As such, Africans distinguished between Europeans who came to Africa for what they could get from it or who came with the paternalistic attitude of neocolonialists and those who came to Africa because they liked
Africans and wanted to help them as well as learn about their problems.

In return, Africans displayed toward these expatriates urbane courtesy and thoughtful hospitality. Although they sought the expatriate's advice and were receptive even to his adverse criticism, they wished to reserve for themselves the responsibility for policy-making in their own country. For this reason, Africans wanted their countrymen to hold posts in which important policy decisions had to be made; yet expatriates were not excluded at the expense of quality and efficiency. For example, on one occasion an expatriate college principal announced to his institution's governing body that if there were two candidates for professorship, one European and the other African, and both were able to fill the post, he would recommend the African without considering further which of the two was better qualified. The African member of the governing body protested the principal's statement on the grounds that this was not the right way to maintain academic standards and to build a good institution. There was also another instance when British advisors urged African governments to fill some key posts with Africans, only to be told that "for the present," the African government preferred to have the services of expatriates (6, p. 52).
In its attempt to influence the universities to adapt their curriculum to the needs of Ghanaian society, the government was puzzled by the uncompromising and sometimes querulous defense of university autonomy displayed by expatriate authorities (6). Evidently, college staffs, constantly on the alert for infringement of their academic freedom, resisted the government's directives and mobilized their defenses against them. Consequently, between 1961 and 1966, considerable tension and even conflict, both covert and overt, developed between the government and university officials which led, on numerous occasions, to violence and repression. Nkrumah warned,

If reforms do not come from within, we intend to impose them from outside, and no resort to the cry of academic freedom . . . is going to restrain us from seeing that our university is a healthy Ghanaian university devoted to the Ghanaian interests (6, p. 92).

These events were followed by demands from the government-controlled press that the University of Ghana be brought to heel. According to the Ghanaian Times,

The universities have become the fountain heads of reaction and fertile grounds for imperialists and neocolonialist subversion and counter-revolution (21, p. 21).

Hence, synthetic groups of demonstrators were brought to the campus in buses and paraded through the University of Ghana. Six members of the faculty were deported for "indulging in subversive activities" (6, p. 93), and ultimately, this
became a precedent for ending academic employment on non-academic grounds. Later, a committee was established to censor and remove all books from the university that were not in line with the government's ideology.

The government sharply criticized the expatriate academic staff for doing "no work which was of the slightest use to Ghana and worst of all, . . . pervert[ing] the flower of her youth, filling their minds with pernicious non-African rubbish" (6, p. 86). As indicated by Adam Curle, the first real attack on the university occurred in March, 1961, shortly after the institution gained university status. As an eyewitness, Curle recounted that

... late in May an undated letter (actually dispatched on the 22nd of the month) was received by the Principal from the President's office. The main burden of this communication was that in the circumstances of transmitting the University College into a University 'all appointments of members of the academic staff will automatically be terminated.' Those who wished to apply for re-appointment must do so by June 10th. A further letter dated May 27th indicated that persons would be re-appointed without re-applying, but that it might 'be necessary to terminate certain appointments and to revise the conditions of service of others.'

These letters and the exchanges, both official and unofficial, to which they led, indicated that the President had at last decided to intervene in the affairs of the College to get rid of persons who were for 'one reason or another undesirable, and to arrange for chosen Government (or party) control of the institution' (8, p. 238).

This clumsy intervention provoked a storm of protest, not only within the university but all over the world. Due to the embarrassment created by its action, the government
reemployed almost all the members of the academic staff. Nevertheless, such arbitrary dismissals based on non-academic grounds were repeated in one form or another during the five years before the Nkrumah's government came to an end (14). During this period Vice-Chancellor O'Brien, who was also an international civil servant of the United Nations and, although sympathetic to the aspirations of developing countries, also intelligent enough to know the extent to which government interference should be allowed to go, could not do otherwise but resign the vice-chancellorship in 1965 (14). He was succeeded by Kwapong.

In his last address to the congregation on March 27, 1965, O'Brien was obliged to make his stand known after having tried in vain to correct matters behind the scenes. He pointed out the difference between what the government said and what was practiced as well as what was stated on paper and what he actually experienced in discharging his duties. Quoting from the University Act, O'Brien stressed the role of the university by stating, "students should be taught methods of critical and independent thought while being made aware that they have a responsibility to use their education for the general benefit" (14, p. 23). In addition, he quoted from an address by university chancellor Nkrumah to graduates at Flagstaff House in 1964,
We know that the objectives of a University cannot be achieved without scrupulous respect for academic freedom, for without freedom there can be no University. Teachers must be free to teach their subjects without any other concern than to convey to their students the truth as faithfully they know it. Scholars must be free to pursue the truth and to publish the results of their researches without fear, for true scholarship fears nothing. It can even challenge the dead learning which has come to us from the cloistral and monastic schools of the Middle Ages. We know that without respect for academic freedom, in this sense, there can be no higher education worthy of the name and therefore no intellectual progress, no flowering of the nation’s mind. The genius of the people is stultified. We therefore, cherish and shall continue to cherish academic freedom at our Universities.... But where the perversion and abuse of academic freedom has happened, a grave disservice is done to everything for which knowledge and truth stand. True academic freedom—the intellectual freedom of the university—is everything fully compatible with service to the community; for the University is, and must always remain a living thing and serving part of the community to which it belongs (14, p. 23).

But O’Brien noted,

Unfortunately, however, we cannot claim during this period, the university’s position as a center of critical and independent thought has become anymore securely established. On the contrary, there are clear signs that influential elements in the community wish to turn the university from a center of critical and independent thought into something quite different, and that they are, making some progress in the direction they desire (14, pp. 22-23).

A year later, some light was thrown on the ground plan which was gradually unfolding.

After Kwapong became vice-chancellor of the University of Ghana, it was reported that the government was allegedly planning a final crackdown on the universities. According to Kwapong, he received a document from the Ministry of
Science and Education entitled "Some Suggestions on Reforms of the University of Ghana." This document, prepared by a Russian professor of law at the university, showed how the university was to be controlled, department by department, through party groups established in each of them. It was recommended that the CPP branch at Legon be given special status and functions, including 1) sections in faculties and departments, 2) voting rights in university bodies, 3) an advisor to the vice-chancellor, and 4) inclusion within the university statutes (28). Although many attacks were made by the press as part of the government's tactics to achieve its ends, no sooner had the authors of the scheme been able to carry out their plans than they were overtaken by the events of February 24, 1966, which ousted the Nkrumah regime. Quoting from Tacitus' record of a similar situation in ancient Rome, at his congregation address on March 26, 1966, Vice-Chancellor Kwapong described the state of affairs in Ghana after the coup,

We have indeed set up a record of subservience. Rome of old explored limits of freedom. We have plumbed the depth of slavery, robbed even of interchange of ideas by the secret police. We should have lost our memories as well as our tongues, had it been as easy to forget as to be silent. Now, at long last, our spirit revives ... and the public security, ceasing to be merely something hoped and prayed for, is as solid and certain as a prayer fulfilled. Yet our human nature is so weak that the cure lags behind the disease (14, p. 24).
It, therefore, fell to Kwapong's lot to give new vigor to the life and activity of the university in the freer atmosphere generated by the coup d'état.

Another contribution from Nkrumah that was vital to the development of higher education in Ghana and must be considered in this study was the great emphasis he placed on mass communication, which brought Ghana in the forefront of African affairs and which in many ways set the pattern for mass communication in black Africa. A review of William Hachten's study on Ghana's press, written during his Fulbright professorship at the University of Ghana, in 1972-73, indicates that Nkrumah started the first national news agency in black Africa, launched the government newspaper, and eliminated the opposition of the press by buying out the British owned Daily Graphic and shutting down his political critic, the Ashanti Pioneer (27). He expanded British-initiated government information services, developed radio broadcasting, and finally initiated a television service just before he was overthrown in February 1966.

The two major government dailies were the Daily Graphic and the Ghanaian Times, both of which had separate Sunday sections, and the Mirror and the Spectator which had circulations of 180,000 and 100,000, respectively. The Broadcasting Corporation's radio service reached about 700,000 receivers, and a single television channel was
received by about 16,000 sets. The Ghana News Agency collected and distributed news throughout the country and exchanged items with Reuters for news from abroad.

The only independent publications not within the official orbit were Kumasi’s Daily Pioneer; the bi-weekly Legon Observer, published by a group of academics at the University of Ghana; and several ephemeral weeklies, including Echo and The Palaver.

In his desire to lead the African continent towards unity and cohesion, Nkrumah espoused a neo-communist role for the media (32; 33; 34; 35; 49), he stated,

Just as in the capitalist countries the press represents and carries out the purpose of capitalism, so in revolutionary Africa, our revolutionary press must present and carry forward our revolutionary purpose (2, p. 19).

Thus, Nkrumah became the first African leader to bring the major media under his personal control and thus established a precedent of a neo-Communist pattern of control over the media.

This practice of manipulation and direct interference with the press, well established under Nkrumah, was inherited by Ghana’s successive military and civilian governments. After each change of government since 1966, the new leaders removed top editors of government newspapers and replaced them with journalists considered friendly to the
new regime. Without exception the independent papers were also directly interfered with.

In July 1972, after an alleged aborted countercoup against the NRC, the Pioneer was summarily shutdown and only permitted to re-open after its two top editors were forced to resign and the NRC hand picked a new editor, Sule Raji, to replace them. The Echo, a small independent weekly, was critical of the NRC, and its editor has been 'interrogated' more than once and detained overnight on one occasion.

Legon Observer deserves special comment because it has been consistently critical of three Ghanaian governments since 1966, and its continued existence showed a relative tolerance that is rarely found in African military governments. NRC pressures have been heavy handed though not completely oppressive. For example, at 5:00 one morning in 1973, its editor Paul Ansah, was summoned by soldiers to Christiansborg Castle (NRC headquarters) and asked to 'explain' the Observer's 'hostile' comments about the government but no further action was taken. However, in mid-1974, the Observer was forced to discontinue publication when unable to find a printer. Several printers approached by the editors apparently had 'gotten the message' that they would have difficulty obtaining import licenses for the increasingly expensive and scarce newsprint if they printed the Legon Observer (27, pp. 459-460).

A description of the basic authoritarian system of media control indicates that (29):

1. There is almost complete government control of all instruments of mass communications including the major newspapers, all radio and television broadcasters, the Ghana News Agency and the extensive government information service. As state corporations they are part of the government and are handled by a Commissioner or Minister for information who is responsible for all news.
2. The media constantly exhort the public to support the government.

3. The press has little independence or access to the government. As elsewhere in Africa, Ghanaians do not dig out news about government affairs but instead report the information that the government wants publicized. Seldom does a few unauthorized news leaks appear in the press. A classic example was the:

... 'press leaks' of 1967 about the government's contract term with Abbott Laboratories, a U. S. drug firm, then negotiating to take over and manage a state-owned drug corporation. After the publicity, Abbott withdrew from the contract and four top editors of three government papers were fired by the NLC for criticizing the arrangements. This was particularly demoralizing to journalists because the NLC had been encouraging the press, long so subservient on public affairs, to be more outspoken (27, p. 460).

4. The press prints very little dissent or criticism of the government. Rarely is a word printed that can be construed as derogatory of government. Since Ghana has no legitimate political opposition, the press lacks news sources that criticize public affairs.

5. The controlled press is designed more for effect than for truthfulness and tends to be highly formalized and stilted (37). Those journalists who believe newspapers should be independent rather than an arm of the government and tried to live up to their principles have lost their jobs. As Hachten writes,
The Pioneer's Accra editor, Kwame Kesse-Adu, is a two-time victim of government pressures. Under Nkrumah, he spent 4 1/2 years in notorious Fort Ussher prison for 'destructive criticism of the government'. And in June 1972, the NRC forced the Pioneer's owners to remove him from the paper's staff. Another loser is John Dumoga, a first-rate editor, who has twice been forced out of top editing positions, once under the NLC and again under the NRC (27, p. 461).

Despite the harsh sedition and libel statutes, some safeguards for freedom of the press do exist under Ghanaian law. However, they afford little real protection since the government rules arbitrarily or by decree.

Soon after the NRC assumed power in early 1972, it issued a decree of indemnifying the government newspapers against libel suits which had been threatened by followers of Busia who felt they had been defamed by press attacks. Another NRC decree affecting the press was issued March 2, 1973, and involved licensing of all newspapers. It empowered the Commissioner of Information to make regulations covering the issue, conditions and duration of manpower licenses and prescribed the fees payable. Failure to comply meant suspension of the license and the publisher faced a fine and up to 12 months in jail. The chilling aspect is that NRC decrees were not subject to judicial appeal. Free expression thus enjoys little protection under the NRC even though Ghana as much as any new African nation has tried to live by rule of law. More ominous than the decrees are the arbitrary pressures against journalists: the informal warning, the interrogations, the detaining of journalists--these are usually enough to convince journalists to censor themselves (27, p. 461).

The functions of the press, as perceived by the government, are to act as

1. Spokesman for the government,
2. Publicizer of great campaigns such as the "Operation Feed Yourself Campaign,"
3. Ideological spokesman to affirm the government's support of the Pan Africanism and African Liberation movements,

4. Legitimizer of an illegal government, and

5. Advocate for consensus and unity by avoiding news of conflict (53, pp. 16-23).

The following is a list of what the press fails to do under political constraints and economic and social deprivations:

1. It does not provide an informed and intelligent report of current public issues for better educated citizens.

2. It does not provide news relevant to readers' lives.

3. There is too little emphasis on reporting news that directly affects the public. Scant attention was paid to news of crime or traffic accidents, although many people are killed on Ghana's highways. Public health is barely reported, and the same is true of the chronic food shortages and draught in Northern Ghana.

4. It does not discuss the endemic problems of economic stagnation, government corruption, unemployment, and the like.

5. It does not serve as a watchdog of public affairs at lower levels to show the persistent inadequacies
of public services such as the mail and telephone systems, roads, police, and others.

6. It does not provide coverage of significant foreign news in Africa.

7. It does not provide feedback to the government on public opinion. This is a common problem throughout Africa, where criticism is often equated with subversion or even treason.

8. It does not provide adequate economic and fiscal information for government agencies and businesses although such information is needed by the elite readers who manage state corporations, private businesses, government agencies, and expatriate enterprises. Rather, information on cocoa, timber, diamonds, and other exports are obtained from the British bi-weekly West Africa Magazine (48).

The National Liberation Council (NLC)
February, 1966 - October, 1969

On February 24, 1966, while Nkrumah was in Peking to sign a peace treaty with Hanoi, the Ghana armed forces and police department, who were aware of the declining strength of the president's own Soviet-trained regiment, attacked them and overthrew the president and his ministers (15). Also, they dissolved the CPP and the parliament, suspended the constitution, and released hundreds of political
prisoners who had been detained under the terms of the Preventive Detention Act. Among the reasons for these actions were 1) the CPP's abuse of civil liberties, 2) the dictatorial nature of the Nkrumah regime, 3) the undermining of the judiciary and traditional leaders, 4) the president's control over the press, 5) the formal declaration of Ghana as a one-party state in 1964, 6) the shifting of Ghana's external ties from West to East, 7) deteriorating financial and economic conditions (31), 8) the exhaustion of the strong reserves of foreign exchange that Ghana had at the time of independence, and 9) the acquisition of massive foreign debts totalling approximately one billion dollars, with arrears on its current payments (15).

After gaining tremendous support throughout the country for their action, the leaders of the coup established the National Liberation council (NLC) as the new government of Ghana. The Council was made up of senior army and police officers and was chaired by Lt. Gen. Joseph Ankrah, who was later succeeded by Brigadier A. A. Afrifa. They ruled by decree for three and a half years and kept their promise to return the country to civilian rule after order was restored.

With reference to this government's contribution towards the development of higher education, on March 7, 1966, less than two weeks after the coup, the NLC appointed the Education Review Committee to undertake a comprehensive
review of Ghana's entire formal educational system and research within that system (43). The NLC established a general policy of fiscal restraint in an effort to bring Ghana out of its grave financial situation, and it quickly scrapped the ambitious Seven-Year Development Plan, including its educational component. Among its decisions on education, the NLC government modified the free textbook scheme to require parents to contribute to the cost of the books, slowed the rate of primary school expansion, so as to reduce the very high cost of university education, and reviewed the overseas scholarships on which the CPP government had spent large sums of money.

According to the report of the Education Review Committee published on February 28, 1968 (43), public discontent was apparent, particularly concerning the quality and content of academic achievement. The committee blamed the Nkrumah regime for expanding the educational system without providing the necessary qualified personnel and equipment needed to support that expansion. Furthermore, political appointees and the Young Pioneer Movement were condemned as corrupting influences that destroyed discipline and lowered staff morale. Finally, the committee singled out middle-level education, which included secondary, technical, vocational, and teacher training, as crucial since it was not only the source of recruits for higher education but
the source of trained manpower that would enable the economy to operate most productively (43).

In response to the committee's recommendations, the NLC noted that the rapid expansion of education at every level had been achieved at a great and steadily increasing cost that made education the heaviest burden on the national budget. As of 1967-68, education was still claiming more than a fifth of Ghana's total expenditures, an extremely high figure when one considers all the competing claims on the country's resources (47). It was quite obvious, then, that the education sector requires close examination with a view to effecting changes in policy aimed at reducing costs (40). Hence, it was decided that university education, which had consumed 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. During this period, universities received a declining but still a high proportion of the development funds available for education, while efforts, albeit not always successful, were made to control their recurrent costs. At this time there was little growth in enrollment.

In 1968, the government concluded the period of stabilization and launched a Two-Year Development Plan, a
capital development plan to cover the two fiscal years 1968-69 and 1969-70 (47). This plan was followed by a one year development plan.

In its Two-Year Plan, the NLC stated:

There would be less cause for concern over trends if the programs 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 (47, p. 81).

Lamenting the waste created by educational expansion, the authors of the Two-Year Development Plan continued,

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 (47, p. 86).

In its Development Plan the NLC charged that a major weakness of the educational system as it had developed was the growing imbalance among its various levels. By 1967-68, the proportion of educational expenditure on secondary schools had fallen to under half its 1960-61 level, whereas the proportion spent on colleges and universities had nearly doubled. Although the Two-Year Development Plan emphasized the expansion of secondary education, it was also concerned with correcting the imbalance in the educational system 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 (47).

The two plans called for increasing the number of Sixth Form places particularly the number of Sixth Form science places so as to produce more students qualified for science programs in the universities (43). The priority given to secondary education was 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 popular pressure for secondary school places, both at Form 1 and Form 6 levels, which was the inevitable consequence of the earlier decision to expand the elementary and secondary education. In conformity with the recommendations made by the Education Review Committee in 1967, the middle level of education received greater emphasis in 1968-69 (39).

In view of the irregular manner in which a large number of Ghanaians definitely inadequate or doubtful academic backgrounds had been awarded scholarships, as a means of bringing down the high cost of higher education, the NLC began to place tighter controls over the scholarship system and to take a close look at the scholarships that had been
awarded. In February, 1968, the government published the following statement,

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 (15, p. 58).

In the same year, the Two Year Development Plan 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 (47, p. 86).

Progress Party (PP): The Elected Civilian Government
Under Busia, October, 1969 - January, 1972

In conformity with the promise made earlier by the NLC, an election was held in Ghana on October 1, 1969, which put the Progress Party, headed by Kafi A. Busia as Prime Minister, into power. Ghana thus became the first African country in which a civilian democratically elected government took over from the military (15, p. 12). Under the constitution, which was revised at the last minute, a Presidential commission was to serve in place of the President for a period of three years unless the National Assembly voted otherwise. However, the Assembly voted for the dissolution of the commission the following year.
The Commission accepted this decision and a presidential electoral college elected Ghana's Chief Justice Edward Akuffo-Addo as the first President of the Second Republic of Ghana.

At this time, the heavy foreign debts incurred by the former government were renegotiated and rescheduled at conferences in 1966, 1968, and 1970. Upon assuming power, the NLC 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 the government decided to return to a policy of expansion beginning in 1969, Ghana's debt and balance of payments position remained a serious constraint on development expenditures and economic growth. This situation was described to the National Press Club by Prime Minister Busia on October 21, 1969.

As a result of that corrupt regime (C.P.P.), Ghana is now saddled with a national debt of just over a billion 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 cannot do so without foreign aid (7, p. 20).

In July, 1971, the government introduced a budget that prohibited many imports, abolished allowances for civil servants and army officers, required salary deductions for the National Development Levy, and cut Ministry of Defense expenditures. In December, it devalued Ghana's currency by 44 per cent, an action that caused prices to rise immediately.

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 resulted in the numbers of schools and students shown in Table XXXI.
TABLE XXXI
EXPANSION OF ENROLLMENT OF SCHOOLS AT
PRE-UNIVERSITY SECTOR, 1965-1972

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Number of Schools</th>
<th>Number of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>8,144</td>
<td>6,715</td>
</tr>
<tr>
<td>Middle</td>
<td>2,277</td>
<td>3,608</td>
</tr>
<tr>
<td>Secondary</td>
<td>105</td>
<td>139</td>
</tr>
<tr>
<td>Commercial</td>
<td>----</td>
<td>9</td>
</tr>
<tr>
<td>Technical</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Teacher training</td>
<td>84</td>
<td>74</td>
</tr>
<tr>
<td>University</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10,624</td>
<td>10,563</td>
</tr>
</tbody>
</table>


Following the Two-Year Development Plan established by the NLC, two years later, the Busia government launched a One-Year Development Plan for fiscal year 1970-71. The Busia government also recognized that the universities of Ghana had developed at very great cost and for various reasons had not achieved the output the country required. As stated in the Development Plan, the creation of three university institutions caused 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 included . . . taking sub-standard entrants, with disastrous results in terms of student wastage and examination failures (15, pp. 54-55).
As a result of the growing imbalances among the various levels of education, the Progressive Party government declared in its One-Year Development Plan,

During the early 1960's the country's educational structure became distorted by the heading 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 (15, p. 55).

The One-Year Development Plan was based on the same purpose as the Two-year Development of the NLC.

Between 1965-66 and 1971-72 the number of primary schools in Ghana decreased by more than 1,400, probably due to the following factors:

1. The imposition of textbook fees in 1966-67,
2. The previous absorption of many average children into the primary schools and the elimination of some schools,
3. Declining primary school enrollment from 1965-66 through 1971-72,
4. Declining enrollment efforts to make the fullest possible use of available personnel and the output of the teacher-training colleges combining to bring about a dramatic improvement in the ratio of trained to untrained teachers.

In contrast, middle school level, the most rapidly expanding part of the educational sector, added more than
1,000 schools and increased its enrollments by 70 per cent from the comparatively small 1965-66 base technical education enrollments. In addition, nine secondary commercial schools entered the public system and increased their enrollment to about 4,600 in 1971-72. In general the secondary school sector increased by thirty-four. This growth was attained by converting some teacher training colleges into secondary schools, bringing the total number of secondary institutions to 139 and the number of students 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 per cent.

Throughout these years, the government slowed the rate of increase in education, but it increased the proportion of total education expenditures devoted to secondary education while at the same time reducing the proportion devoted to higher education. Also, with the post-coup period came certain structural curricular and administrative changes within the educational system. Curriculum reform was a major objective of educational policy at both the elementary and secondary levels. Over the years, the growing number of young people who left elementary and secondary schools with only an academic or general education had, as the One-Year Development Plan stated, drawn increasing attention to the problem of relevance in education and how the schools could
equip their pupils for careers (41, p. 165). Taking the position that general education schools should provide prevocational or vocational education, the successive governments took steps to broaden the curriculum at the elementary and secondary levels so as to include various practical subjects. This was accomplished by

1. Establishing an increasing number of continuation classes in the ninth and tenth 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 (15, p. 60).

The post-coup governments also identified weaknesses in educational administration, planning, and coordinating and made changes designed to

1. Better coordinate the administration and development of pre-university and university education and

2. Improve the planning and administration of pre-university education.

Hence, in April, 1972, the government appointed three committees to examine the financial aspects of the
non-academic areas of university administration and to make recommendations aimed at reducing costs. Due to continuing financial exigencies in higher education, the Busia government recommended the establishment of a student loan scheme to assist students in paying for their board and lodging (27, p. 10).

The National Redemption Council (NRC), Later Known as the Supreme Military Council (SMC): 1972-1979

On January 13, 1972, less than three weeks after the Busia government had drastically devalued Ghana's currency, the Ghana Armed Forces removed the Progress Party from office in a bloodless coup and took over for the second time in six years. Its leaders formed the new government of Ghana, the National Redemption Council, with Colonel Ignatius K. Acheampong as Chairman. A few weeks later Acheampong explained in a radio broadcast the reason for the Armed Forces' action.

... the aim of the Armed Forces on 13th January was to rescue this country from the financial mismanagement of the previous 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 harrassed 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 (42, p. 17).

According to George (15), as soon as the NRC government took over reins, it unilaterally repudiated about $94.4 million of Ghana's national debt, representing one-third of
the foreign debt arising from medium-term loans and $29.4 million from suppliers' credits. It also declared that 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 had been entered into to fund technically and economically viable and productive projects. Moreover, such debts would be repaid on terms applicable to credit granted by the International Development Association, i.e., repayment over a fifty-year period after a ten-year grace period and at .75 per cent interest. The NRC government also rejected debt settlements concluded with creditor countries since the 1966 coup and thus cancelled moratorium interest totaling $72 million. However, it accepted responsibility to pay both Ghana's short-term debt of $286.26 million and its long-term debt of $231 million. The NRC had to make a 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 a radio and television broadcast to the nation on February 5, 1972, the chairman of the NRC explained the situation as follows

... 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 (42, p. 5).

Simultaneously, Acheampong announced the NRC's decision to nullify the massive devaluation declared by the Busia government. Hence, on February 7, 1972, Ghana's currency was revalued by 42 percent, which lowered prices from the current level but not to the level existing before the December 27, 1971, devaluation. The NRC also restored certain incentives to the civil service that had been withdrawn by the Busia government.

The NRC's economy policy statements placed heavy emphasis on Ghana's self-reliance. In an address to the staff of the Ministry of Finance and Economic Planning on February 5, 1972, Acheampong stated,

The National Redemption Council offers a great opportunity to Ghana to become, at least, 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 dependence upon cocoa while prospects for exports in other fields wait untouched (42, p. 14).

Apart from pursuing the consistent view shared by all the pre-coup governments with regard to educational development in Ghana, the NRC's interaction with universities and other higher educational institutions was among the students. During their tenure, Acheampong instituted the National Service scheme, which was designed to enable students to demonstrate their support for the regime by serving the country for one year after graduation without full salary. Students thus became more involved in Ghana's national development program by engaging in work such as cutting sugar cane and participating in the Dawhienyia Irrigation Project.

Although students were prepared to make some sacrifices to assist in the attainment of Ghana's development goals, they were unwilling to endure what they perceived to be abuses of discretionary authority on the part of regime officials. Such was the case in January, 1974, when students from the University of Ghana encountered soldiers "drilling" and harassing a woman for alleged drug trafficking at Ho. The students intervened, only to be badly beaten for their efforts. As a result of this incident, the student leaders on all three university campuses organized protest marches on the district capitals.
of Accra, Kumasi and Cape Coast. Students marched carrying signs and chanting songs derogatory to the military, who met them with mobilized force. Confrontations ensued, and the universities were closed for thirty days. This was no surprise, since closing the universities for a month was a typical regime response to student agitation. The government tried to rationalize its action as having been taken to maintain order in the national interest and warned the students that

> While government has shown its willingness to co-operate fully with students and has supported their legitimate aspirations, the government cannot tolerate acts of lawlessness and vandalism which are not in tune with the revolutionary spirit of building a new Ghana (50, p. 191).

During this time, the students were pressured by their families to abandon their protest and return to their studies. Eventually, the universities were reopened and the students were permitted to return to classes after signing a pledge of obedience to university authorities.

The students' main concern was the legitimacy of the arbitrary and capricious authority exercised by the military in dealing with the civilian population. It is unfortunate that the NRC never dealt with this issue. Although all of the Ghanaian regimes, to some degree, controlled educational processes, the NRC was too hypersensitive to any form of organized dissent. During a meeting with the National Union of Ghanaian Students (NUGS) at the University of Ghana, on
July 21, 1974, the president of the NUGS asked Colonel Acheampong, then Chairman of the NRC, if in the future the NRC was going to interpret student dissent as a form of disloyalty. In response, the Colonel, in a magnificent display of circumlocution, outlined the NRC’s links with the students as "solid" and declared that "a sophisticated form of in-loco-parentis would guide future NRC student relations" (23, p. 1). Referring to the closing of the universities, Acheampong said,

Students of this country are our sons and daughters and so as parents love their children, so do we, as a government love our students. But just as parents were under the solemn obligation to correct their children when they were wrong, the Government also had the solemn responsibility to chastise students when they went wrong ... it is a father's way of ensuring that the son continued to live by the ideology and principles of the family (23, p. 1).

Addressing the World Council of Churches at the University of Ghana several weeks later, Acheampong praised Ghana’s students for the many tributes they had earned for themselves by the spirit of voluntarism they generated and for their inspiration to the otherwise passive populations of local communities by giving meaningful support to government programs such as Operation Feed Yourself, a self-help project, and the construction of irrigation canals (23). It is not surprising no one was sure which constituency, the parents or the children, Acheampong was truly addressing. This was a common problem with the NRC-
SMC and other African regimes which tended not to be directly responsible to any constituency but, in any event, continued to flail away at problems of inflation, housing, food production, and organized dissent simultaneously in order to ensure their own authority, legitimacy, and longevity.

A final element of the dialogue between Acheampong and the NUGS worthy of mention was the observation by the former that the regime was investing a substantial amount of its revenue in educational development. Eventually the NRC government realized that the current level of funding could not be maintained indefinitely, and that eventually students would have to share in the financing of their own education. Although the students agreed to this, their natural consensus was that the switchover in funding should take place sometime in the indefinite and unspecified future, preferably after they had graduated. Ultimately in 1974, as it became more difficult for the NRC to continue its total supports of students, it was forced to withdraw the £100 paid annually to each student for books and out-of-pocket expenses and replace these payments with a student credit system. Under this system, as previously noted, the Ghana Commercial Bank, on the authorization of the government, granted loans of £300 and £500 per annum to undergraduate and graduate students, respectively. This amount was
intended to cover students' personal expenditure, including the cost of books and materials, a small subscription fee to student clubs, and examination fees. The loans were repayable to the Bank upon students' graduation, with no interest except a small service charge (42).


After seizing power from the SMC government in 1979, Jerry John Rawlings, the leader of the Armed Forces Revolutionary Council (AFRC), handed over control in three months' time to the elected civilian government of the People's National Party, led by Hilla Liman. Later, however, Rawlings, who was retired from the Ghana Military Service, ousted the Liman government in a military coup after it had been in office for twenty-seven months (52, p. 89); thus, bringing the military power for the fourth time in twenty-five years after Ghana gained its political independence.

In a radio and television broadcast to the nation on January 5, 1982, a few days after the coup, Rawlings explained the cause for the AFRC's action by stating,

the actions which toppled the Liman government 'was not a military coup,' in the sense of providing an opportunity for another group of soldiers and their allies to come to power for their selfish ends. The intention, this time, was to create an opening for real democracy and improve the lot of the masses.
There is no doubt about what some have argued that, however badly the government was doing, let the existing authorities provide the remedy. Nevertheless, those who have spoken this are, of course, mainly the government officials who have been assured of their essential commodities, housing, transportation, salaries, and allowances.

Those who have been engaging in 'kalabule' have also been speaking like that; those who want their stability at the expense of the majority of the working people speak like that. But those who have been toiling and sweating in the factories and the fields, suffering for little or no reward have never spoken like that.

In the face of our serious problems, simply to have sat back and watched things go on and lose the ability to react would have been inhuman. And the action of December 31, 1981 was a human outcome of previous situation (52, p. 89).

In the February, 1982, issue of the *West Africa* magazine, workers at the three universities indicated that "the events of December 31, 1981, were directed not only at the PNP regime but the whole corrupt and exploitative socio-economic structure of the country including all the political parties that collaborated in maintaining our exploitation and the social order" (52, p. 89).

The PNDC charged that, halfway through its tenure the Liman government became insensitive to the millions of Ghanaians who were suffering untold hardships, and that it did little or nothing to relieve their suffering. All the government appeared to care about was how to make enough money, through dubious means, to ensure its return to power in 1983. Moreover, what caused the greatest annoyance to the average Ghanaian was the fact that many of the PNP's
leaders were individuals who had been discredited and even jailed for non-political offenses in the past.

When the PNDC came to power, Secretary of Education Ama Atta-Aidoo, the crusader of social and moral justice, believed that under Nkrumah's CPP government Ghana's educational standards had been further enhanced but that the post-1966 military and civilian regimes had undermined the very foundation of the nation's educational structure. According to Atta-Aidoo, Ghanaian teachers, who had been mobilized in huge numbers to teach academic and extra-curricular subjects, including ideological courses and Young Pioneer Movement, found it preferable to leave their teaching posts for neighboring countries in search of more lucrative service conditions. They felt that they had been treated like lepers by the post-1966 regimes. In other words, the teaching profession, which was once seen in noble terms, became a mere steppingstone for the underprivileged young men and women. Teachers not only suffered poor salary conditions but were treated like pawns in the game of promotion. The all-powerful Director General of Education in Accra had the overwhelming power of deciding the fate of every teacher in the entire country.

To rectify this situation and to encourage teachers to remain at their posts, the PNDC found it necessary to decentralize the promotion system in order to enable regional
directors of education "to promote teachers within their regions up to the grade of Senior Superintendent" (52, p. 1675). The Secretary for Education was to introduce, for the first time, new salary ranges for the teachers (52, p. 1675). Although this action could have been taken by any of the post-1966 coup regimes, none of them was either magnanimous or bold enough to attempt it. They operated on an erroneous assumption that, since day nursery and kindergarten teachers obviously fell within the nation’s category, to improve the salaries and other service conditions of any group of teachers would mean an improvement of working conditions for all teachers from kindergarten to university, and the regimes feared that blanket salary increases would cause inflation. Yet, despite the financial exigencies facing the country, it was reported that some of Ghana’s politicians and military leaders were able to send monies to their Swiss and other overseas bank accounts when the country’s foreign exchange reserves collapsed.

Concerning the conditions of service for teachers in the universities and other institutions of higher education, Under Secretary of Higher Education S. O. Asiamah, in an interview with the People’s Daily Graphic, emphasized the PNDC’s determination to improve those conditions and make them attractive enough so as to entice teachers to remain in their profession and help improve the standard of education
in Ghana (17, p. 3). Under the new system, lecturers were to receive 10 per cent of their gross annual salary as a vacation allowance instead of a maximum of £300 allotted them, as well as a car maintenance allowance of £500 to £2,500. It was stipulated, however, that lecturers who went on sabbatical vacation and refused to return at its conclusion would be regarded as having breached their contracts with their universities. These lecturers would lose all entitlements due them and be made to refund the full salary paid them while on vacation (17).

The leaders of the PNDC realized that the structures and modes of education supported with tremendous amounts of money for several years had failed to help Ghana to develop a prosperous society, and unite the people and make them sensitive to their inequity. Rather, the Ghanaian educational system had (1) enslaved the minds of the people, (2) depleted their self-confidence, and (3) kept the country underdeveloped.

The PNDC also attributed the economic consequences of an exodus of thousands of Ghanaians to neighboring and distant countries to seek "greener pastures" and a better life to the educational system. For a positive reversal of this unacceptable situation, the PNDC is taking the necessary measures to offer an education that will reorient the minds of the citizenry to instill in them a desire to
create prosperity by their own productivity through hard work and dedication. To help the people to demonstrate in every way that they cherish the blessing of belonging to a country that is most well-endowed, the Secretary of Education stated that it would depend on individuals being able to achieve strong national unity and a steady reduction of the blatant inequities in the present order. To this end, the PNDC established a new Education Commission for the first time and ordered it to examine education in its total meaning and application from the preschool stage to university and beyond (16, p. 7).

During his meeting with the Executive Board of the Association of African Universities (AAU) in his office at the Ocre Castle, Rawlings called the attention of the university professors to the socio-economic crisis engulfing Africa and said that:

Much as Africans could blame a sizeable portion of their woes on other people, Africa ought to be sincere and honest to themselves to make their portion of the blame.

...if one sits back and takes a hard look at the continent today, Africa presents a pathetic sight in terms of development....Africans are caught on the periphery of history makers (18, p. 5).

To solve this endemic disease Africa needs intellectuals who could make their knowledge relevant to the needs of their people, the Chairman of the PNDC, Rawlings, therefore appealed to the universities to use their knowledge for the practical solution of the continent's problems. He
reminded them that as professors they have a bigger and more effective weapon in Africa's developmental drive because "they are always dealing with the minds of the people and also moulding their mentality" (18).

In conclusion, he challenged the professors to come together and make the Association of African Universities a very strong and functional one in order to influence African governments to lead their countries effectively.
CHAPTER BIBLIOGRAPHY


51. West Africa Magazine (London), February 18, 1974, p. 191

52. West Africa Magazine (London), February 1, 1982, p. 89.


CHAPTER VI

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This chapter opens with a summary of the study, including the problem, purposes, and methodology, and its findings as they pertain to the research questions. The conclusions, implications of the study, based upon the findings, are then presented, followed by recommendations for future research.

Summary

Universities in many newly industrialized countries like Japan, Australia, India, and Canada have enabled those countries to achieve rapid economic and social advancement by playing a leadership role both in the development and application of new technology to facilitate the process of growth. This is untrue for universities in Ghana, however, due to that nation's ailing economy and its continued dependence on foreign manpower, aid, and material goods. Thus, the purpose of this study was to illuminate the major factors and events that have controlled and inhibited the development of higher education in Ghana from 1948 to 1984.
Specifically, the purposes of this study were as follows:

1. To identify the major factors and events that effected the establishment of higher education in Ghana;

2. To review the programs of study and analyze the student enrollment and output patterns of Ghana's three universities as they developed from 1948 to 1984;

3. To describe the organizational structure and administrative practices and procedures in the financing and planning of Ghanaian higher educational institutions during the period 1948-1984; and

4. To review the role played by successive Ghanaian governments in the development of higher education during the period 1948-1984.

The method of acquiring data involved:

2. Journal articles related to the topic were located in various indexes in the libraries of North Texas State University (NTSU) and Texas Woman's University (TWU) in Denton, the University of Texas at Dallas (UTD), the University of Texas at Arlington (UTA), Texas Christian University (TCU), in Fort Worth, and Southern Methodist University (SMU) in Dallas, as well as the Dallas Public Library (DPL).

3. A manual search for books and dissertation abstracts was also conducted at the above-mentioned universities.

4. Ghana government publications on higher education were obtained from the Education Section of the Embassy of Ghana in Washington, D. C.

The study was designed to survey the historical and contemporary development of higher education in Ghana from 1948 to 1984. Hence, no experimental design was necessary. Information from the review of the documents was synthesized in order to establish facts and conclusions concerning the past, present, and future development of higher education in Ghana.

Chapter I introduced the study, stated the problem, outlined the purposes of the study and the research questions to which answers were sought, described the
background and significance of the study, indicated the delimitation of the study, defined special terms used in the study, and described the methodology employed.

Chapters II to V presented information related to the five research questions. Chapter II described the factors and events that contributed to the establishment of higher education in Ghana, focusing on the following areas:

1. Important factors and events that led to the earliest direct contact between West Africa and Europe;
2. The introduction of Western education by castle and mission schools;
3. Nationalism and the demand for higher education, concentrating on early figures such as Horton, Blyden, Hayford, Azikiwe; and
4. The transplantation of British universities in Ghana.

Chapter III provided an overview of the types of degree, diploma and certificate programs offered by the various faculties, departments, schools, and institutes of each of the universities in Ghana. This was subsequently followed by an analysis of the student enrollment and output patterns of each university.

Chapter IV surveyed the historical background of Ghana's National Council for Higher Education and
Scholarships Secretariat and described the organizational structures of the universities of Ghana. In addition, it provided information on the administrative practices and procedures in the financing and planning of these universities.

Chapter V was concerned with the activities of the successive Ghanaian governments which had a significant impact on the development of higher education in Ghana since independence. These governments were the Convention People’s Party (CPP); National Liberation Council (NLC); the Progress Party (PP); the National Redemption Council (NRC), which later became Supreme Military Council (SMC); the Armed Forces Revolutionary Council (AFRC); the People’s National Party (PNP); and Provisional National Defensive Council (PNDC).

Findings

The findings are presented in conjunction with the research questions to which they are related.

Research Question 1

"What were the major events and factors that effected the establishment of higher education in Ghana?"

The most impelling factor in effecting the establishment of a formal system of higher education in Ghana was
the contact between Europe and West Africa, which came about as a result of these events:

1. The West African coastline was explored by Portuguese navigators in search of gold and spices in the mid-Fifteenth Century.

2. The devastating slave trade, which began in 1562 and ended in 1807, brought Africa into faster and more ultimate contact with Western Europe than would otherwise have been possible. Slaves or their descendants were the pioneers of Christianity, nationalism, and western education in Sierra Leone and then throughout all English-speaking West Africa.

3. Christian missionaries came to Ghana and West Africa primarily to preach the gospel after some former slaves had returned to Africa.

4. The rise of nationalism in the persons of men like Horton, Blyden, Casely-Hayford, and Azikiwe created a demand for the establishment of higher education in West Africa, including Ghana.

As the traffic in gold became more profitable, other European countries including the Dutch, English, Danes, Swedes, and Germans entered the field. European merchants established forts and castles at Anomabu, Dixcove, Elimina, Cape Coast and Christiansborg for two reasons: to provide a strong foothold from which the Europeans not only prosecuted
trade but eventually colonized and dominated the hinterland and to establish the first schools and western ideas on the coast. Since the merchants' primary purpose for settling on the coast was commerce, they gave rudimentary training to the children of these merchants by African wives to be clerks, guards, and interpreters and to fill any other positions vital to the progress of their trade.

Formal education, however, was first introduced to the African public by the Christian missionaries who began to come to Africa after the abolition of slave trade. The first school was said to have been established by Thomas Thompson when he was sent to Cape Coast by the Society for the Propagation of the Gospel in 1752. In 1807, when slavery was declared illegal for British subjects along the coast of Africa, many of the ex-slaves as well as the former servicemen who had escaped from the American revolutionary war became homeless and destitute. With the help of Sharp, an opponent of slave trade, and the Sierra Leone Company, they were shipped to Sierra Leone, where they were to found a province of freedom, a free self-governing African community.

Upon their arrival in Sierra Leone, various bodies including the Methodist and Baptist churches, tried to establish societies in Europe to help them. Consequently, in 1795, the London Missionary society, which later became
the Christian Missionary Society (CMS) was established. In 1815, the CMS built a Christian Institute to train pastors, teachers, and farmers. In 1827, it was transferred to Fourah Bay, where it became the Fourah Bay College and subsequently the first university in West Africa. This school became the training ground for many early Ghanaian and African missionaries and educationists and also played an important role in the development of higher education in West Africa.

Among the missionary societies that laid the foundation of educational development in Ghana in 1844 were

1. The Basel Mission, representing the Presbyterian Church, which settled at Christiansborg in 1828;

2. The Wesleyan Mission, representing the Methodist Church, which came to Cape Coast on New Year’s Day, 1835; and

3. The Bremen Mission, representing the Evangelical Presbyterian Church, which arrived at Peki from Togo in 1847.

Other missionaries who followed later were the Catholics, the African Methodist Episcopalians, the founders of the English Church Mission (ECM), and members of the Ahmadiyya movement.

The missionaries founded primary, middle, and secondary schools throughout the country. Following the passage of
the Gold Coast Legislative Ordinance in 1887, however, the government came into partnership with the missions in promoting, organizing, and assisting schools. Missionaries came to Africa to preach the gospel; therefore, their primary purpose in establishing schools was not merely to spread literacy, nor did they train their pupils how to earn a living. Rather, they believed that schools were one of the best means of spreading the Christian faith.

To accomplish their objectives, the missionaries preached against the practice of African culture and traditions such as African music, art, dance, and religion as satanic and banned them from their schools. They also replaced traditional forms of citizenship training with instruction of a different kind to produce citizens of high quality to serve a different Ghana. They produced two worlds by encouraging the separation of the minority of literate and Christian individuals from the total community. With the exception of the Basel mission, which concentrated on technical education to improve the condition of the Africans, all of the mission schools provided their pupils only with religious and theoretical teaching.

After the natives had received primary, middle, and secondary education, a natural desire arose for further studies or higher education which was demanded by the
nationalists like Horton, Blyden, Casely-Hayford and Azikiwe.

The primary aim of the early nationalists in demanding a university was to help emancipate the Negro race. The proposed location of the university depended on the domicile of the nationalists. Horton and Blyden, for example, wanted their West African university located in Sierra Leone, Hayford wanted his in Fanti-land in the Gold Coast, and Azikiwe wanted his in Nigeria.

Despite several appeals for a university in West Africa by the nationalists, none had been founded by the end of World War II. Although their demand for a university was rejected by the British government, it did establish three institutions of higher education in West Africa: Fourah Bay College in Sierra Leone, Achimota College in Ghana, and Yaba Higher College in Nigeria.

After World War II, American missionary bodies in Africa became eager to help with the development of education in West Africa. The Phelp Stokes Commission, therefore, was invited to Africa to assess the condition of education in the Gold Coast and that of other African countries. The missionaries and the Commission insisted that the British government declare its policy for education in Africa, and, in response to this the government appointed the Advisory Committee on Native Education in the British Tropical Africa
in 1923. Not until 1939, however, during a conference in Lagos, did the governors of West Africa agree upon a long-term project to establish a West African university college, which for some time would be affiliated with a British university until it matured into a full-fledged university.

After World War II, the Asquith and Elliot Commissions were set up to investigate the status of higher education in the British colonies in general and in West Africa in particular. Subsequently, the Asquith Commission's report became Britain's policy and doctrine for establishing universities overseas. The policy stated that colonial universities were to begin as university colleges which would be transmuted into universities when they acquired charters to grant their own degrees. The colleges were to be based on the standards, curricula, constitutions, and social functions of British universities, and their primary purpose was to produce elite men and women with the skills and capacity for leadership that self-rule required.

The University College of Gold Coast was established at Achimota on October 11, 1948, by government ordinance as an autonomous institution. It opened with ninety students from the post-secondary department of Achimota College which already had buildings and facilities. After Ghana gained its independence in 1957, the institution was designated as the University College of Ghana. In 1959, it moved to its
permanent site at Legon Hill, and it became a full-fledged university with the authority to award its own degrees, diplomas, and certificates on October 1, 1961.

Ghana's University of Science and Technology established on August 22, 1961, originating from the Kumasi College of Technology came into existence on January 22, 1952, with 200 students from the Teacher Training Department Achimota College, as a result of a government ordinance of October 6, 1951. The University of Cape Coast, established on October 1, 1971, originated from the University College of Cape Coast, which came into being in October, 1962, in special relationship with the University of Ghana in response to recommendations by the commission on University Education in 1961. It opened with 155 students at the Osagefo Teacher Training College at Cape Coast. Its primary purpose was to produce graduate teachers in art and science subjects for secondary schools, teacher training colleges, polytechnics, and technical institutions in Ghana.

**Research Question 2**

Research question 2 asked, "What were the programs of study, student enrollment, and output patterns of each university as they developed from 1948 to 1984?"

Ghana's three universities, all of which started with only a handful of students and a small number of courses and a few departments, now constitute a complex and a
well-developed system of higher education. Each of the universities has several departments grouped under faculties which offer programs in a wide range of fields and at six different levels: (1) preliminary, (2) subdegree diploma and certificate, (3) bachelor's degree, (4) postgraduate diploma and certificate, (5) master's, and (6) doctor's.

The subdegree diploma and certificate courses vary in length and admission requirements. Certificate courses are usually one or two years in length, and their entrance requirements are usually lower than those for diploma courses. Diploma courses are usually two or three years in length.

The first degree programs in all three universities have high entry requirements which reflect their British origin. At the University of Ghana all first degrees require three years, with the exception of the medical degrees and the B.Sc. Honors and the B.Sc. Honors in Agriculture. At the University of Science and Technology, with the exception of the new B.A. Social Sciences and B.A. Economic degrees that require three years each, all courses require four years. All courses at Cape Coast also require four years.

Both honors and general programs are offered. The former concentrates on a single major or two related subjects to achieve greater specialization in the academic
program; the latter is broadened to include three or four subjects. At the University of Science and Technology and University of Cape Coast, a bachelor's degree may be obtained in three or four years, depending upon the discipline and type of degree (general or honors) in question.

Postgraduate programs are offered in various subjects at each university, leading to various postgraduate diplomas and certificates and to master's and doctor's degrees. Requirements for admission into any of the postgraduate programs normally include the first degree of high classification with at least a Second Class Honors (Upper Division) in an approved subject or field. Most master's degree programs require two years of full-time or three years of part-time study to complete, whereas postgraduate diploma or certificate courses require one or two years. Doctor's degree programs require three years. Both master's and doctor's programs involve research in an approved topic and the presentation of a thesis.

University of Ghana.--The University of Ghana was founded in 1948 and became a full-fledged university in 1961. At that time it had four faculties--Arts, Social Studies, Science, and Agriculture--and three institutes--Education, Extramural Studies, and African Studies. By 1984, the University of Ghana was the largest university in
the country with forty-seven departments organized in seven faculties: Agriculture, Arts, Law, Science, Social Studies, Medicine, and Administration.

University of Science and Technology (UST).—Formerly the Kumasi College of Technology, UST was founded in 1952, with the courses offered by the Teacher Training Department of Achimota college (KCT). In 1953, the Department of Agriculture was added, and the Pharmacy Department of the Kole Bu Teaching Hospital in Accra was transferred to the KCT.

In 1955, the college was admitted into special relationship with the University of London and began to offer courses leading to the University of London's degrees in Engineering as well as various courses leading to examinations of British professional institutions or college diplomas. It also offered preliminary courses leading to the Higher School Certificate, which was the entry requirement for degree courses.

After UST gained university status in 1961, both it and the University of Ghana began to phase out the old courses leading to University of London degrees and examinations of British professional institutions and courses and to introduce new courses leading to their own degrees, diplomas, and certificates. Today, UST has thirty-six departments divided
into seven faculties: Agriculture, Architecture, Art, Engineering, Pharmacy, Science, and Social Studies.

University of Cape Coast (UCC).—The University College of Cape Coast was established in special relationship with the University of Ghana in October, 1962, with two academic departments, Arts and Science, both of which were transferred from the University of Science and Technology. During 1963/64, these departments developed into two faculties of Arts and Science. Then, in 1964 the Institute and Department of Education at Legon was transferred to Cape Coast to form a third faculty, the Faculty of Education.

In 1974-76 the University’s scope of study was broadened to include courses in the social sciences, and the length of the degree courses was increased from three to four years. By 1984 the institution had twenty departments organized in four faculties: Arts, Economics and Social Studies, Science, and Education.

Enrollment and output patterns.—The expansion of higher education in Ghana went forward in the early 1960s at a time when the secondary schools were not producing adequate numbers of Sixth Form graduates, especially in the sciences, who could meet the high admission requirements maintained for university degree courses. As a result of the inadequate numbers of secondary school science graduates
and the way in which the universities responded to this situation, most of the university students during the early 1960s were enrolled in preliminary rather than the degree programs. A sizable percentage of the overall growth that higher education achieved during the early 1960s was reflected in enrollments at the Sixth Form. The use of university places for pre-university courses rather than university level courses inevitably reduced potential output. At Cape Coast there was a high failure rate among science students; likewise, the balance between arts and science students at the University of Ghana and between degree and diploma program both there and at Kumasi were also clearly reflected in their output.

The University of Ghana opened in 1948 with ninety students. By 1950 it had 213 students, and the total rose to 340 in 1951/52, and to 480 in 1952/53. By the end of the period of its existence as a university college in special relationship with the University of London, on September 30, 1961, the institution had awarded 1,110 degrees, diplomas, and certificates. In 1982/83, the university had 3,384 students, and it awarded 1,058 diplomas, certificates, and degrees.

The University of Science and Technology, formerly Kumasi College of Technology, opened with 200 students in 1952. Total enrollment had risen to 708 by 1961, when 93
degrees, diplomas and certificates had been awarded. By 1965/66, enrollment had doubled to 1,440, and 153 diplomas and degrees were awarded.

In 1967, UST’s enrollment declined to 1,300 and fluctuated until 1972/73, when the total reached 1,765. Before 1963, the number of degrees, diplomas, and certificates awarded each year was fewer than 100, but by 1971 this number had risen to 400. Most of UST’s students are male, but by 1972/73 women constituted 6.7 per cent of the student body. In 1983, UST’s student enrollment was 2,979 and it awarded 668 diplomas, certificates and degrees.

The University College of Cape Coast’s enrollment increased from 155 in 1962, the year of its inception, to 1,122 but then fell to 1,041 in 1967/68 due to the removal of associate certificate courses and a decline in the number of science students. Enrollment fell again to 797 at the beginning of 1969/70, when the university was enforcing its entry requirement more rigorously hitherto, and it declined still further to 638 when 159 third-year science students were dismissed.

In June, 1970, due to massive failures in the science examination, the university was forced to cut down their enrollment figures. A new policy was then instituted of admitting fewer and better qualified students to the preliminary science course, strengthening their preparation
Research Question 3

Research question 3 asked, "What were the patterns of the organizational structure and procedures in the planning of Ghanaian higher education during the period 1948-1984?"

**Organizational Structure**—Ghana has a centralized governmental structure; hence most agencies including higher education is the government's responsibility. The governmental agency responsible for higher education is the National Council for Higher Education, established in 1969. It originated from the National Council for Higher Education and research, established in 1962 and attached to the office of the President. The NCHE's responsibilities are:

1. Directing and coordinating higher education;

2. Serving as a University Grants committee by enquiring into the financial needs of the institutions of higher education and making recommendations to the government concerning block awards of funds to each institution to help meet their operating costs;
3. Advising the government on the development of higher education in Ghana, taking into account total national resources and the development of programs; and

4. Formulating the strategic policy that should guide higher education.

Under the provisions of the legislation that established the universities, each institution is autonomous and governed internally by a fifteen-member university council whose responsibilities were

1. Controlling, managing, and administering funds granted to the university, and

2. Taking final action on all matters of high level policy and decision-making at the university.

The Academic Board, also known as Senate at the University of Cape Coast, is the universities' next most powerful policy- and decision-making organization. Similar to the University Council, its membership has a broad representation. Its responsibilities include establishing educational policy and generally regulating academic work in both teaching and research.

Officers involved in the day-to-day administration of Ghana's universities are the chancellor (who is the head of state and the chairman of the University Council at the University of Ghana and the University of Science and Technology), the pro-chancellor (a position which exists
only at the University of Cape Coast), the vice-chancellor, the pro-vice-chancellor, the registrar and the chief fiscal officer.

In addition, several committees and boards are responsible for varied areas of institutional operation, including student participation services. Among them are the finance committee, bookshop board, library board, estate management committee, residence board, cafeteria management committee, and hospital management committee. Finally, the Students' Representative Council (SRC) serves as the spokesman for the entire student body. It controls all student activities organized by clubs and societies and finances them on behalf of the university.

**Financing.**—The operation of Ghana's universities has become more expensive as a result of the high specialization demanded of their staff and the quality and type of equipment and other facilities required for their efficient and effective performance. Financial constraints, therefore, are one of the greatest single factors facing African universities in their attempt to fulfill their responsibilities. This is a result of the scarcity of resources and also the growing needs of other sectors of the national economy, especially the primary, middle, and secondary levels of the educational system.
Financing higher education is much more expensive in a developing country like Ghana than elsewhere because certain infrastructural facilities and services without which the university cannot function must be provided by the university whereas in a developed country, such facilities would be provided by the local authority or other agencies within the community. University administrators must be concerned not only with the academic aspects of their institutions, but also the housekeeping aspects of their campuses, including the provision of housing, medical services, transportation, and shops for the students, teachers, and university staff.

Sources of financing for Ghana's universities are,

1. Grants-in-aid from the government, whose contribution is over 90 per cent;

2. Student tuition, which, except in the case of private foreign students, is paid by the government through the Scholarship Secretariat;

3. Students maintenance grants from the Scholarship Secretariat, which cover university room and board fees;

4. Loans from the Ghana Commercial Bank of about $300 a year to cover books, material, small subscription fees to student clubs and pocket money;

5. Income from services rendered (e.g., accommodation charges); and
6. Grants from various non-governmental bodies, both within and outside Ghana.

Approximately four months before the beginning of the financial year each university submits its draft estimates of expenditure to the NCHE. These estimates are prepared under three headings: recurrent expenditure; non-recurrent, capital, or development expenditure; and equipment expenditure. After receiving the draft estimates from each institution, NCHE's Finance Committee scrutinizes them on a line-by-line basis. This committee then meets with the heads of institutions and their financial officers so that they can justify their estimates. After reaching the consensus on the draft estimates of each institution, the chairman of the NCHE presents them in a form of recommendations to the Budget Division of the Ministry of Finance, which represents the government and determines specifically the size of the grants to be made to each institution.

Planning.—When the University of Ghana was established, it adopted a five-year system like that used by the universities of the United Kingdom, but this quinquennial system was discontinued when it became difficult for the government to allocate resources for the university in the second half of the 1960s. Ghana's universities, therefore, came to be financed on a yearly basis, with recurrent grants paid monthly in advance and capital grants
released only for work actually done. This system of financing, however, placed a great strain on the universities and caused some of them to resort to bank overdrafts which was very undesirable to the Government. Lack of any effective manpower statistics and a nationally formulated statement of manpower needs and goals made it impossible for the universities to make any long-term planning to meet manpower needs.

To enable both the government and universities to achieve orderly development and make realistic projections of future educational costs and financial requirements, the NCHE incorporated the application of unit cost analysis techniques. The credibility of these techniques as a tool for planning depends on the consistency of practice among the universities with regard to their categorization of the elements of expenditure and their various accounting methods.

A management information section was established within the secretariat of the NCHE for planning purposes, to offer relevant statistics concerning finance, students, academic staff, physical capacity, empty spaces, new residential places, and new academic faculties. In planning for recurrent capital expenditures, the Council considered not only the arithmetic calculation associated with the unit costs analysis technique but other factors such as student
numbers and the proportions of students enrolled in different types and levels of courses, and academic matters such as the nature and extent of new departments or courses. Management objectives for areas such as reduction of deficits on halls, control of municipal services, academic plans for new development, commentary on management matters, proposed future staff numbers of various departments, student load figures by faculty and departments, and proposed future expenditure by categories were also considered.

In planning for the development of the universities, the NCHE considered not only the plans put forward by the individual universities themselves but other factors such as the demand for students for university places, national needs for qualified graduates, and the likely availability of resources as well as the pattern of the future size and balance of the universities in terms of both student numbers and resources. The NCHE formulated a broad central strategy of development for the universities as a whole and for each university within that whole.

Expenditures for capital equipment were largely determined using the student cost analysis technique. The forward building program included site works rather than equipment and consisted essentially of three elements:
1. Completion of buildings and works already approved and begun;
2. Construction of new buildings, as necessary to provide for new students or new subjects, and
3. Replacement or adaptation of existing buildings because of obsolescence or a change of use.

In estimating the cost of buildings, the following factors were taken into consideration:

1. Maximum expenditure per square foot on different types of buildings,
2. Maximum sizes of rooms for different purposes,
3. Space allowances for circulation areas, and
4. Space allowances for laboratories, staff houses, and student common rooms, arrived at from local practice and experience.

Factors used in assessing equipment grants were
1. Cost per unit (i.e., expenditure per square foot),
2. Student unit (i.e., expenditure per student), and
3. Area term or room space per student.

**Capacity of academic buildings.**—Before the Council approved a new academic building to house additional students, to enable new academic departments to be created, or to undertake other new activities such as institutes or research projects, it had to verify that existing buildings were fully utilized by surveying the capacity of existing
buildings, particularly in the academic area. The Council consulted with the Ministry of Finance and the Central Bureau of Statistics for an index to measure the rate of inflation in university costs.

**Research Question 4**

Research question 4 asked, "What was the role played by successive Ghanaian governments in the development of higher education during the period 1948-1984?"

Higher education, which was established and administered by the British colonial government in the Gold Coast, eventually, after independence, came under the control of successive military and civilian governments in Ghana:

1. The Convention's People Party (CPP), headed by Nkrumah;
2. The National Liberation Council (NLC), headed by Ankrah and later by Afrifa;
3. The Progress Party (PP), headed by Busia;
4. The National Redemption Council (NRC), later called the Supreme Military Council (SMC), headed by Acheampong and subsequently by Akuffo;
5. The People's National Party (PNP), headed by Liman; and
6. The current government, Provisional National Defensive Council (PNDC), headed by Rawlings.
During Nkrumah's years as prime minister, educational development received a major boost motivated by a sense of urgency to meet the needs of a new nation. Nkrumah and his party believed that education was the primary means of bringing about change and development and as the keystone of a people's life and happiness. Hence, education was to play three important roles in the new nation,

1. Helping to speed up the training of manpower,
2. Serving as an agency for orienting the nation to a socialist way of life, and
3. Aiding the process of Pan Africanism.

Through some manipulation of the educational structure, the Nkrumah regime attempted to achieve these objectives through a progressive series of three development plans: the Accelerated Development Plan, the Second Development Plan, and the Seven-Year Development Plan. Under Nkrumah, the emphasis of education was primarily on numbers. All efforts and resources were concentrated on training as many people as possible.

The government's attempt to influence the universities to adapt their programs to the needs of society resulted in conflict with expatriate academics who were constantly alert for infringements of their academic freedom. They resisted governmental directives, and considerable tension and conflict developed between the government and university
officials which led on numerous occasions to violence and repression.

By 1965, the last full fiscal year under the CPP government, recurrent (operating) expenditure on education totalled £67 million, fourteen times the total in 1951, which represented 25 per cent of the total national budget. Of this recurrent budget 26 per cent was allocated for higher education institutions and scholarships for students in higher educational institutions both at home and abroad.

After breaking their ties with the University of London in 1961, the University of Ghana and the University of Science and Technology began to function in greater harmony with the national context, but devotion to autonomy and academic freedom at the former institution became a source of conflict between the university and the CPP, which attacked the social functions of the university and the transplanted fripperies of British higher education. The view that Legon was an elitist institution divorced from Ghana's needs and the African revolution led to several attacks on the university.

Following the change of government in Ghana in 1966, actions taken in the educational field suggest that the successive regimes maintained a consistent view of the system developed under Nkrumah and a rather consistent policy of educational development.
Less than two weeks after the coup, the NLC appointed an Education Review Committee to undertake a comprehensive assessment of the entire formal educational system and research in Ghana. The condition of middle level education, including secondary, technical, vocational and teacher training, was considered crucial since it was the source not only of recruits for higher education, but of trained manpower that would enable the economy to operate as productively as possible.

The NLC established a general policy of fiscal restraint in an effort to bring Ghana out of its grave financial situation. Nevertheless, in 1967/68, education was still claiming more than a fifth of the country's total expenditures. The NLC decided that the educational system should enter a period of consolidation during which costs would be held down and enrollment stabilized and better related to the country's needs. Above all, efforts were made to hold down recurrent costs. In 1968 the NLC concluded this period of stabilization and launched a Two-Year Development Plan, a capital development plan, followed by a One-Year Development Plan. Although the former plan emphasized the expansion of secondary education, it was also concerned with correcting the imbalance in the educational system 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.

The two plans called for increasing the number of Sixth Form science places so as to graduate more students qualified to enter science places in the universities.

The recognition that Ghana's universities had developed at a very high cost and had not achieved the output the country required prompted the successive governments, including the Progress Party to take steps to broaden the curriculum. The PP identified weaknesses in educational administration, planning, and coordination and made changes designed to improve these aspects of pre-university and university education. Due to continued financial exigencies in higher education, the PP, in April, 1972, appointed three committees to examine the financial aspects of non-academic areas of university administration and to make recommendations aimed at reducing costs.

The NRC's contribution to higher education was to be found among the students. Upon coming into power this regime allied itself with the university students in order to ensure its authority, legitimacy, and longevity. It achieved these goals by nullifying the student loan scheme instituted by
the PP government and increasing grants to the universities, at the peril of the country's economy.

Through its actions the NRC was able to instill a spirit of voluntarism and national consciousness among the students who hitherto had been absent. This contributed to the success of the

1. Establishment of the National Service Scheme for students to demonstrate their patriotism by serving for one year without full pay at various locations, especially in rural areas, after graduation;
2. Promotion of farming through the "Operation Feed Yourself Program"; and
3. Establishment of the Self-Reliance Program.

The students, however, were unwilling to endure what they perceived to be abuses of discretionary authority exercised by regime officials. This led to confrontations between the military and the students and, ultimately, to the closing down of the universities for several months.

The PNP was accused by the PNDC and the workers of Ghana's three universities of encouraging corruption and exploiting the socio-economic structure of the country. It was insensitive to the hardships of Ghanaians and, apparently, to the needs of the universities as well.

The PNDC believed that under the CPP government of Nkrumah Ghana's educational standards had been enhanced but
that after 1966 the military and civilian governments had undermined the very foundations of the nation's educational structure. Because teachers' salary and working conditions were poor and they were treated like "pawns in the game of promotions," thousands of them left Ghana to seek better positions in other countries. The PNDC sought to rectify this situation by

1. Decentralizing the promotion system to enable Regional Directors to promote teachers within their regions up to the level of senior superintendent, and

2. Attracting university lecturers by giving them 10 per cent of their gross salary as a vacation allowance.

Finally, in order to make the educational system more responsive to the needs of Ghanaian society, the PNDC set up a new Education Commission to examine education in its total application from preschool to the university and beyond.

Conclusions

Based on the findings of this study it can be concluded that Ghana's informal system of education was functional because it served the needs of the society. It was based on the culture and traditions of the people and emphasized social responsibility, job orientation, political participation, and spiritual and moral values. The main
objectives of the informal education was to produce an individual who was honest, respectful, skilled, and cooperative and conformed to social order. Hence, it is assumed that, if unemployment, immorality, corruption, economic depression, and other negative phenomena that have crippled Ghana's progress if it existed at all, were very minimal and very few young men and women roamed the villages and towns with nothing to do.

It can also be concluded that the factors leading to the establishment of formal education by various bodies were

1. The need to train Africans as human tools to be used as clerks, interpreters and guards at the forts and castles, to promote commerce and to foster the British system of indirect rule over Africans by European traders and the British colonial government;

2. The establishment of schools by the Christian missionaries as a means of spreading the Christian faith;

3. For higher education, the need to prepare people with leadership and manpower skills who could lead the country after independence and aid in its development;

4. The establishment of effective European overrule, which created an administrative structure within
which posts were available to educated Africans and which gave them opportunities to displace traditional rulers.

It is unfortunate that the missionaries who displaced the country's informal system of education with the European system had no time to study the culture and traditions of the people but, rather, considered them as Satanic and excluded them from their schools. Contrary to their intentions, the education the missionaries provided, instead of being constructive to the people's welfare, became destructive by disrupting the stability of the society, alienating the citizens from the core of their culture as well as displacing and eliminating traditional citizenship training.

In view of these facts, how could teachers who did not understand or respect the cultures of their pupils reach those pupils' minds? How could administrators, unfamiliar with the customs of the people in their charge earn their confidence? How could lawyers, or doctors, or engineers, who were out of touch with the society in which they worked, serve that society well?

As though affected by a chronic disease, the universities that had been established for the purpose of improving manpower supply also became ineffective and irrelevant by emphasizing British traditions. The British expatriates who controlled the universities in their early
stages made no attempt to relate their curricula to the needs of Ghana. Worse still, after the long struggles between African nationalists and the British government as the former sought a system of higher education relevant to the needs and aspirations of Ghanaians, the universities enforced a literary type of education on their students, while applied science and technology, which were needed for the country's development, were ignored and placed in institutions below university status. Although some African intellectuals favored this system—especially those educated in Britain whose aspiration was to reach a level equal to that of the European elite—pragmatists believed that such an academic form of education was inappropriate in a developing country like Ghana.

Although Ghana's prime need from its universities was the broadly educated citizen capable of manning the civil service system, the actions of expatriate professors and the determination of the African to imitate Europeans conspired to keep courses too narrow and too much oriented to research. The normal university courses became so specialized that students were admitted to concentrate upon one subject in honors courses (such as chemistry, history or French) with very small amounts of time allotted to other subjects. Thus the universities followed the model of a British civic higher education institution, serving an elite
and emphasizing autonomy, excellence and narrow specialties. The three significant characteristics of Ghana's universities during this period were elitism and lack of diversity and adaptation. Since the African intellectuals resisted changes in curricula and pattern of courses because they confused such changes with a lowering of standards, it was no surprise Nkrumah's attempts to impel the universities to relate curricula to the development realities of the country resulted in conflicts. If Ghana is to support its universities, however, it should have a say in their direction.

Although as far back as 1970, the International Commission on University Education appointed by the Ghanaian government criticized university entrance requirements as unnecessarily rigid, Ghana still maintains the two-year GCE-A-level program which becomes more difficult every year as the main entry requirement for the universities even though some countries formerly under British have abolished it.

If, after eight years of primary and five years of secondary education, students are not qualified to do university work, there is something wrong with the system. It is a popular belief among people who have tasted both the British and American systems of education that the two-year Sixth Form program is a waste of time and, therefore, should be abandoned. The practice of grading of degrees in first,
second, upper, second lower, and third levels appears to be jealously maintained and may indicate that the universities are more interested in grading students than in educating them. The opposite, of course, should be the case.

Nkrumah’s reorganization of the universities is to be commended since it made them accountable to the nation. Hence, it is imperative that each of these institutions continue to work toward realizing its goals.

As previously noted, the NCHE is the main body responsible for the administration of higher education in Ghana. Apart from formulating the central development strategy for higher education, and for university development in particular, the NCHE also plays an intermediary role between the Government and the universities. This role is very important since it prevents direct contact between the government and universities. The function of intermediary is especially important in a developing country like Ghana, where the government tends to be impatient with the universities, expecting quick and spectacular results from them, and does not understand the universities’ vigilant protection of their academic freedom.

The universities, on the other hand, are equally impatient with what they consider to be the slow bureaucratic machinery of government. The yearly funding of the universities and their use of overdrafts give a clear
indication of the financial exigencies facing the universities. This problem, therefore, needs to be rectified.

The application of the unit cost analysis technique used by the University Grant Committee in the United Kingdom introduced by Evans-Anfom is necessary to ensure adequate and appropriate planning and development for the universities of Ghana by making realistic projections of future educational costs and financing measures. With the exception of the CPP government, which believed that education was the cornerstone of the people's life and happiness and devoted much of the nation's economy to education, all of Ghana's subsequent governments held the view that higher education had been developed at a very high cost and that it had not achieved the output the country required. These governments, therefore, effected changes in policy aimed at reducing the cost of higher education.

It is most unfortunate that a country like Ghana, endowed with such talented and well-educated citizens cannot maintain a constituted form of government. However, it should not be forgotten that, when people refuse to use their education and talents for the development of a nation but continues to prey on society, the country is eventually engulfed by
1. Ignorance and jealousy among its people,
2. Chronic economic problems,
3. Trading deficits,
4. Hard currency shortages,
5. Huge external debts,
6. Lack of economic growth, and
7. Difficulties in adequately feeding its people.

These problems lead to social disorders, political upheaval, and ultimately, a change in governments. Since the government has a tremendous impact upon the development of the country, in general, and upon higher education, in particular, its instability also results in inconsistent governmental policy towards higher education, as reflected in the findings of this study.

With respect to the Ghanaian government's frequent interference with the universities; the suppression, perversion, and abuse of academic and intellectual freedom; and governmental control over the mass media, it must be realized that universities, like other learned bodies, have a concentration of persons of high intellectual power whose training makes them highly critical and independent in thought. Teachers and research workers in universities are employed mainly because of their academic ability and performance, and they can expect to hold their appointment during their prescribed tenure as long as they continue to
perform their duties satisfactorily (2). Their activities outside their official functions are their individual responsibility. As individuals and citizens, they differ in temperament, behavior, and sense of judgment, and may hold divergent opinions on politics and other public issues. It is therefore difficult, if not impossible, to say that the university as an entity holds a particular viewpoint even if an expression of opinion is made by any group of persons within it or by any of its constituted official bodies. For all practical purposes, the viewpoint of a university could only be asserted with regard to a matter which lent itself to a fairly precise formulation, upon which a vote could be taken, yielding a distinct majority of convocation for or against it.

In dealing with the governments of developing countries it should be noted that, although they assert publicly that they welcome criticisms, they are extremely sensitive to it and tend to be hostile to individuals who express in speech or in writing a different point of view from the official stance, or are in any way critical of it, no matter how well-founded their opinions may be. While exercising their rights as citizens, may create problems for their university as a body by actions for which they, not the university, should be held responsible, according to whatever law exists. As long as the government treats the activities of
individuals or groups within a university as necessarily the activities of that university as an entity and close it down or arbitrarily dismisses some of its staff, tension will continue to exist between the government and the universities. The actions that the law allows should be taken against those individuals or groups within a university, as they would against other individuals or groups outside the university. Although, in either case, when action is arbitrary there may well be groups or individuals within the university who will feel inclined to protest. Indeed it is necessary that persons of integrity within the community, including the universities, should have the courage to support or disagree with government leaders for public good (2). Their reasons for any such action, however, should be publicly stated. It should be realized that the search for truth is not easy, nor is it confined to any single group, and unless tolerance and open-mindedness and discussion exist, there can be no real intellectual development, which is as necessary as social development. If a regime does not allow expression of opinion and discussion, it offends against the human spirit and its own ultimate best interest.

It must be emphasized that the objectives of a university—for example, as indicated in the University of Ghana Act: "Students should be taught methods of critical
and independent thought while being made aware that they have a responsibility to use their education for the general benefit"—cannot be achieved without scrupulous respect for academic freedom, for without freedom there can be no university. Teachers must be free to teach their subjects with no other concern than to convey the truth to their students as faithfully as they know it. Scholars must be free to pursue the truth and to publish the results of their research without fear, for true scholarship fears nothing. It can even challenge the dead learning that has been handed down from the cloistered monastic schools of the Middle Ages. Without respect for academic freedom in this sense, there can be no higher education worthy of the name and therefore no intellectual progress, and no flowering of the nation's mind, and the genius of the people is stultified (2).

Since no field of education is thoroughly comprehended by human beings and new discovery could still be made, especially in the social sciences where few, if any, principles are accepted as absolutes. Scholarship cannot flourish in an atmosphere of suspicion and distrust, and to impose restrictions upon the intellectual leaders of the universities is to imperil the future of the country and to stagnate civilization (1). Thus, teachers and students must
always remain free to inquire, to study, to evaluate and to
gain new maturity and understanding (1).

When academic freedom is perverted or abused, a grave
disservice is done to every principal for which knowledge
and truth stand (4). True academic freedom, the intellec-
tual freedom of the university, is fully compatible with
service to the community, for the university is and must
always remain a living thing and a serving entity in the
community to which it belongs.

Intellectual freedom should be enjoyed by all,
particularly those persons for whom intellectual pursuit is
a "must," whether they work in a university or not. When
intellectual freedom suffers a diminution, as in the case of
the Ghanaian universities and mass media, intellectual
progress is accordingly retarded. When intellectual freedom
is suppressed, which is what regimental thinking entails,
intellectual progress is brought to a halt.

The first and most fundamental principle of academic
freedom is therefore intellectual freedom, which provides
the conditions necessary for the university to make the
fullest possible contribution to human progress. This, in
turn, is much more than the mere production and enjoyment of
material goods; it is above all the uplifting of the life of
mankind to a higher plane of spirituality, culture,
goodness, beauty, and truth.
Intellectual freedom must be accomplished by personal responsibility, a good sense of judgment, and the academic humility which eschews dogmatism and bigotry. Thus, no academics should, under the cloak of intellectual freedom, use position as teachers only, to expound and propagate their ideas. Rather, the duty of academics is to present to their students the various points of view on a given subject, and allow them to form their own opinions.

Another important principle relates to the right of the university to set its own standards for admission to its courses and to formulate the courses themselves, bearing in mind the educational level of the country; to organize appropriate courses with due regard for their relevance in both the short and the long term; and to appoint its own staff, in accordance with prescribed procedures. These rights must be conceded by the government if the university is to remain free from political pressures and encroachments.

Concerning the use of funds, there is no absolute principle except that funds accepted for specific programs must be so used and not diverted to other purposes. General funds should be allocated by the university so as to ensure proper levels, in relation to their commitments of activity in all departments.

Whether the conditions outlined above are essential for a university to operate as a center for the pursuit of
truth, and for critical and independent thought will depend largely upon the members of the university and upon the intellectual community as a whole, their loyalty to principles, their determination to maintain and defend them, and their wisdom in handling critical situations. It is only through their tenacity, demonstrated in practice, that reliable convention of academic freedom, as distinct from paper guarantees, can be securely established.

Despite all of the weaknesses associated with the imported British system of higher education, these conclusions cannot be ended without acknowledging the debt that the present generation owes the missionaries, pioneers and all of the other individuals and groups involved in the establishment and development of higher education in Ghana. Many of them paid for the opening of schools with their lives, while those who survived worked under extreme difficulties. Today Ghana is blessed with three universities and various other institutions of higher education offering all types of degree, diploma, and certificate courses. It is, therefore, imperative, in light of all of the issues discussed in this study, for the present generation of Ghanaians to improve the higher educational system inherited from the British, by incorporating their culture and traditions into it to meet their needs and aspirations and also
enable them to face the challenges of the modern technological world.

Implications

The findings and conclusions of this study suggest the following implications.

1. Compared to institutions in European and Western societies, Ghanaian higher education is very young. Nevertheless, the Ghanaian people are fully cognizant of the value of a strong system of higher education, and thus are constantly working to upgrade and strengthen it. The work of the International Commission on University Education, the National Council for Higher Education, the Education Review Committee, and the Special Committee on the Delimitation of functions of the Universities attest to Ghana's interest in providing a viable system of education for its people.

2. From the beginning, the Ghanaian people accepted the British pattern and content of higher education in order to establish their universities on the gold standard of learning and to gain academic recognition. Subsequently, however, the people became increasingly concerned about the relevance of the curriculum to national needs as the result
of the pressures to emphasize the utilitarian functions of universities and pressures to incorporate into the undergraduate courses elements of indigenous African civilization including its languages and history, its social and political systems, and its music and mythology.

3. The traditional approach to manpower training and procurement will certainly keep Ghana abnormally short of needed workers indefinitely unless Africans change their attitude toward traditional Western concepts of education.

4. Universities in Ghana perpetuate neo-colonialism and intellectual dependency by maintaining the Western—or, specifically, the British—educational philosophy.

5. One of Ghana's major problems today is that technological education is not keeping pace with technological advancement, and one of the paradoxes of post-independent Ghana is that independence has speeded up modernization, but the latter has created dependency on expatriate technological assistance and created in the students a sense of historical dislocation.

6. The structure of the Ghanaian system of education clearly favors the intellectually talented or elite.
Only those who are successful on the examinations at various stages of their academic life are permitted to pursue advanced educational experiences and are barred from upward educational mobility opportunities, whereas in the United States the door is open to anyone who is willing to compete.

7. It seems that African nationalism is built on rejection as manifested by the nationalists. However, this rejection is selective. In their international relations Africans reject alignment with Western politics and all forms of Western control, but they do not reject Western economics and technology, Western academic standards, or Western expatriate teachers.

8. The duplication of courses in the universities indicates inadequate coordination.

9. The universities' overdrafts indicate the financial exigencies that they are facing.

10. There is evidence of suppression and abuse of academic and intellectual freedom by the government and by intellectuals, respectively.
Recommendations for Higher Education in Ghana

As a result of this study, the following recommendations concerning the future development of higher education in Ghana are suggested to the universities, the NCHE and the government of Ghana.

1. Since education with training in skills develops human talents, creates dissatisfaction with the social milieu, and fosters acceptance of innovation and willingness to change, all of which are essential ingredients for technological, economic and social progress in any society, the universities, while not detracting from the cultural value of education, should place increasing emphasis on the value of education in imparting knowledge and skills for development.

2. In view of the aspirations of Ghanaians and the eagerness of the present government to evolve a socio-political system that will eliminate disease, ignorance and poverty and at the same time evolve a truly egalitarian society and also alleviate shortages of highly skilled technical scientific and professional personnel in virtually every sector of development, education for development must of necessity require an orientation of the scope and purpose
of educational curricula to development needs, which in essence calls for

a. Changes in student and staff attitudes towards certain "hard" and the so-called low prestige courses which are vital to economic progress;

b. An evaluation of the adequacy of existing courses and of the media for the transfer of knowledge and techniques to those in positions to apply them;

c. The adoption of new courses essential to development, e.g., technicians, and mechanics

d. A reallocation of educational resources for the development of different occupational skills in relative importance to their impact on the development process;

e. Maximum utilization of available institutional facilities in developing essential skills required for national development, e.g., laboratories;

f. The adoption of new methods and techniques for imparting knowledge (the "chew-and-pow" method and dictation of notes should be eliminated while emphasis is placed on class participation, research and reports); and
g. Expansion in the output of technical and science teachers who will be able to prepare enough science and technological secondary students for the universities.

3. If institutions of higher education are to adequately face the task of producing the required level of high-level manpower for development, full consideration must be given to widening the present departmental and subject structure of the curricula of those institutions to include newer subjects which in training facilities in Ghana are at present either unavailable or inadequately developed to foster economic development.

4. Using the words of C. W. Eliot, a former president of Harvard University,

A university ... must grow from seed. It cannot be transplanted from England or Germany in full leaf and bearing .... When the American university appears, it will not only be a copy of foreign institutions ... but the slow and natural growth of American social and political habits (3).

It will be of great advantage to Ghana to consider the history of American higher education to learn what the Morrill Act of 1862 did for America and incorporate some of the strategies that the United States utilized in changing British colonial education into a pragmatic system to serve the people.

5. Since the curricula of the universities are divorced from the needs of the people, an appraisal should
be made of the total system of higher education so as to incorporate into it the culture of the people. It will be advantageous, when improving the curriculum, to adopt Ward's philosophy of education as a guide.

Education should be adapted to the mentality, aptitudes, occupations and traditions of the various peoples, conserving as far as possible all sound and healthy elements in the fabric of the social life, circumstances and progressive ideas as an agent of natural growth and evolution. Its aim should be to render the individual more efficient in his condition of life, whatever it may be, and to promote the community as a whole through the improvement of agriculture, the development of native industries, the improvement of health, the training and the inculcation of true ideas of citizenship and service and the raising up of capable, trustworthy public-spirited leaders of the people (7, p. 20).

However, not only should the curricula of these institutions be relevant to the needs of Ghana; they should be internationally viable. In view of the problems created by expatriates, it is important when developing or evaluating curricula to utilize local people who understand the local context and its problems, are sensitive to local pressures, and, at the same time, have the basic expertise and qualifications requisite for the solution of the particular difficulties in question. Apart from having a qualified curriculum staff, the following factors should be considered in developing a viable curriculum.
a. The institutional structures should permit and encourage periodic reviews and evaluation of the curriculum, research programs, and performance.

b. Links should be forged with other universities as well as visiting research and teaching personnel who may introduce the local personnel to newer experiences. However, the basic decisions, their implementation, and final responsibility for the curriculum should remain firm with local faculty and researchers.

c. Scientists, educators, and other high-level manpower in Ghana should formulate a clear national education and scientific research policy to which the university programs can be related.

d. The universities should have clear-sighted leadership and open and flexible structures which consist of effective participation in their programs by the various constituent members of the institution, including both faculty and students, where appropriate.

e. There should be a reasonable level of national, political, economic, and social stability in the country.
f. There should be a fair measure of agreement among the government, the general public, and the universities concerning the aims, function, and capabilities of the universities.

6. It is important that the curricula of the higher educational institutions be examined to offer those institutions the opportunity to perceive the needs of their environments. This is especially true in countries like Ghana which are not only new to university tradition but had to introduce the systems of other countries without much initial opportunity for adaptation. In so doing the following questions should be asked.

a. What should be taught in a degree course?

b. Is it more beneficial to African development to devote most of the energies of the institution to practical questions relating to the economic development of the country?

c. Should the study of agriculture, economics, and engineering take precedence over the study of classics, philosophy, history, and English literature?

8. Apart from the popular university courses which require the GCE-A-Level for admission, secondary school students should be exposed to other professional courses offered by the universities which require only the
GCE Ordinary level. Thus, the various universities and their departments should embark on massive recruitment efforts at pre-university institutions.

9. The efficient use of the country’s resources demands that the programming and timing of new institutions or expensive courses be undertaken on the basis of educational needs and practical considerations rather than for what might be called ethno-political reasons.

At present, the total enrollment of 7,973 at Ghana’s three universities could be served in one viable university. Hence, no new institutions of higher education should be established in the country until all the present institutions have reached their maximum capacity.

10. To avoid duplication of courses, rationality should be exercised in the development of programs. Premature duplication of expensive courses which are not fully developed in an existing institution is wasteful of the limited resources, and has the further effect of keeping the duplicated courses in low gear, because neither course gets the full support it needs to attain its proper scale and efficient performance.

11. In view of the fact that most Ghanaians and Africans as a whole tend to be more interested in attaining
degrees than in acquiring skills, they should be advised by the words of Mary C. Patterson-Griffith:

When a person receives a degree without acquiring the discipline and skills that the degree represents, the lack soon becomes self-evident and the doors of opportunity are closed to him or her, and the degree itself is rendered meaningless (6, p. 64).

The universities should therefore be involved in the war against mediocrity to ensure that [their] students acquire the necessary skills before they graduate (6).

12. If the NCHE is to play its role effectively as an intermediary between the government and universities, it is essential that it should be independent of both because it is only under such conditions that the council can examine issues objectively and render the necessary advice. The Council's role, as specified in the relevant decree, is purely advisory and should remain so. It has no legal or executive powers, and it should not be given any.

As an advisor to and the main channel of communication between the government and the universities and vice-versa, its role should be recognized by both of them. It should be independent and free to comment and advise on issues that come before it. Hence, an appreciation by both government and the universities of this fact would do much to help the Council in its work.

The Council should feel free to render advice in matters it regards as important even when that advice has
not been sought by the government. Since the Council was set up to advise government on higher education policy as far as possible the government should act in close consultation with the Council on all matters relating to higher education.

13. The universities' tendency to utilize overdrafts, the growing demand made on the national economy and the funding of the universities on a yearly basis gives a clear indication of the financial exigencies facing them. It is therefore imperative, in view of this predicament, for the universities to tighten their belts and streamline their financial management in order to reduce cost and maximize efficiency.

14. Since the amounts annually budgeted did not help forward planning of academic and other programs and caused universities to resort to overdrafts, it would be of vital help to the universities if the NCHE could introduce a triennial system of funding.

This would enable the universities to plan for the future with greater confidence. Although such a system has both advantages as well as disadvantages, the former, on the whole, outweighs the latter. The chief advantage is that it would give the universities a greater measure of financial autonomy and responsibility. From the government's standpoint, another advantage is that it would obviate the need for
constant review of the university budgets, since governmental obligations would be specified for sometime in the future.

On the other hand, a distinct disadvantage to a triennial system would be the rising cost of inflation, which might eat into allocations. Moreover, it is not always easy to forecast what major changes may occur during a triennial period, which may distort the budget.

15. In view of the multiple problems associated with the general administration and coordination of the universities, the NCHE should be headed by an expert on higher education, not just a politician.

The excessive elements of rejection in African nationalism retards continent's progress. A nation cannot be built on rejection alone. There must also be affirmation by Africans who can put into words not only what African nationalism rejects but what it affirms; hard work, dedication, respect for achievement, and integrity. African intellectual life must become self-reproducing, inventing its own techniques, establishing its own values, and becoming not only a recipient, but a donor of world knowledge. The prime task of African intellectuals should be to make African nationalism creative. To enable scholars to carry out this task the universities of Ghana must not only preserve their loyalty to the Western tradition but discover and proclaim a loyalty to the indigenous values of
African society. It seems easy to criticize, but Ghanaians and Africans should learn to say that wrong is wrong and adhere to the ideals they demand in others.

16. Since the stability of the government is usually accompanied by consistent governmental policies towards the development of the country in general and that of higher education in particular, to ensure its longevity the government should be true to itself and its citizens in its bid to solve the country's chronic problems, which include the following and lead to political upheaval:

1. Ignorance and jealousy among its people,
2. Chronic economic problems,
3. Trading deficits,
4. Hard currency shortages,
5. Huge external deficits,
6. Lack of economic growth, and
7. Difficulties in adequately feeding the people.

17. For the universities to be able to accomplish their objectives as stated in the University Act there should be scrupulous respect for academic and intellectual freedom on the part of the government, the university and the intellectuals.

The importance of academic and intellectual freedom as well as freedom of the mass media to the development of higher education and ultimately the development of the
country, cannot be overemphasized. In his second inaugural address, President Ronald Reagan stated, "... there are no limits to growth and human progress when men and women are free to follow their dreams" (5, A17L). Thus, in its bid to develop the country, the government of Ghana should make an earnest effort to dismantle all forms of governmental controls over the mass media and the universities.

18. Since university officials refuse to be responsive to the needs of the country and, moreover, the advantages to be gained by giving them academic freedom are not obvious and cannot be justified, it is important to devise a much more fundamental relation between the university and the government through the NCHE, by redefining academic freedom under African conditions. A covenant should be drawn between the university and the state specifying on the one hand the powers to be delegated to the university and on the other hand the spheres of interest within the university in which the government wishes to exert an influence. This covenant should be one that deliberately involves politicians in the university instead of keeping them at arm's length and should set up a mechanism (like the NCHE) for continuous consultation between the state and the university.
Recommendations for Future Research

Based on the findings, conclusions, and implications of this study, the following recommendations for future research are made:

1. Since this study is limited to the three universities of Ghana, a further study could be made on the other institutions of higher education in the country.

2. An investigation could be made to determine whether the programs offered in each university are in tune with the university’s mission as accorded it by Nkrumah during the reconstitution of the universities in 1964.

3. This study has revealed some of the factors that controlled and inhibited the development of higher education in Ghana, but an investigation could also be made to determine the impact of higher education on Ghanaian society.

4. To improve the curriculum of the universities with regard to the needs of Ghana, and to ascertain the kinds of skills that business companies and institutions expect from university graduates, a study could be made using the perceptions of vice-chancellors, heads of faculties and departments,
lecturers, students, workers, and employers of various companies as well as the government.

5. An investigation should be made with respect to the relevance of teachers' qualifications and experience in their teaching field.
CHAPTER BIBLIOGRAPHY


APPENDIX B
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June, 1973

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The Candidate obtained the following results:

<table>
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</table>

Division: Distinction

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<table>
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<th>Subject</th>
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</table>
| Subjects Required: FourSUBJECTS II. REQUIRED FOR HSC

Candidate No: HA906304
APPENDIX F
UNIVERSITY COST ANALYSIS

Appendix 1

Suggested Categorization of Non-Capital Expenditure

1. Academic Departments

   (i) Salaries and Wages

   (ii) Departmental and Laboratory Expenses (excluding major equipment)

   (iii) Research

This category of expenditure needs to be set out separately for each of the principal Faculty groups, e.g. Arts/Social Studies/Education (together or separately as desired), Science, Technology, Agriculture.

Notes:

(a) These compare with about 17 subject groups used in U.K. but are sufficient for most purposes.

(b) All academic departments and probably institutes (except perhaps for the three Agricultural Research Stations) financed from the central university budget should be fitted in to one of these categories. Departments operating in more than one Faculty (e.g., Mathematics) should be included in the group to which they have closest cost affinity (i.e., Mathematics might go with the Arts, etc. group).

(c) Medicine is omitted since the Medical School is separately financed.

(d) If preferred, departmental research allocations can be excluded from unit cost calculations and handled separately.

(e) All self-balancing expenditure, e.g. research contracts, should be omitted.

(f) Posts or other recurrent expenditure whose costs are met by external aid should be included as expenditure (and offsetting sums, notional if necessary, should be included as income when Government grant subventions needed are being calculated).

(g) Faculty unit costs are the result of dividing Faculty expenditure by student load in any year.

(h) The same conventions should be adopted in each University.
2. Academic Services, e.g.
   (i) Libraries and books and periodicals: salaries and wages
   (ii) Museums (if any)
   (iii) Audio-Visual Centre
   (iv) Central Computer Costs.

3. Premises and Municipal Services, e.g.
   (i) Local taxes, rent, insurance of university buildings (not housing)
   (ii) Light, water, power, telephone (net)
   (iii) Repairs and maintenance
   (iv) Gardening and security services
   (v) Hospital, transport and school services (net) attributable to staff other than academic staff.

4. Academic Staff and Student Services
   (i) University Health Service or Hospital (net of income) attributed to academic staff and students
   (ii) Subsidies to student halls and refectories (net)
   (iii) Payments to wardens of halls, etc.
   (iv) Staff housing costs (net of rental and other income)
   (v) Transport, school costs, etc. attributable to academic and equivalent staff and students.

5. Central Administration
   Salaries and wages, office machinery and supplies

6. General Educational Expenditure
   (i) Examinations
   (ii) Prizes, scholarships and awards paid by university
   (iii) Extra-Mural Department and other associated costs.

7. Capital Items met from General Income
   (i) Furniture and equipment (see Note)
   (ii) Buildings and other minor works.

8. Surplus of Deficit for the Year

   Note — Equipment expenditure during the year on teaching and research—and perhaps furniture—is best handled separately if expenditure is substantial, e.g. through a pooled Equipment Fund. But it can alternatively be treated as Departmental Expenditure under Category I.
BIBLIOGRAPHY

Books


**Articles**


Patterson-Griffith, Mary C., "Insuring Academic Quality: Regrettably, It's time for the State to Step In," The Chronicle of Higher Education, XXVII, No. 4 (September 21, 1983), 64.


University of Ghana Reporter, 26 October 1962, p. 18.


West Africa Magazine (London), February 1, 1982, p. 89.


Reports


Public Documents


Memorandum of the Case of the National Congress of British West Africa for a Memorial Based upon the Resolutions to be Presented to His Majesty the King Emperor in Council through the Right Honorable Secretary of State for the Colonies, Petition #3, London, Her Majesty's Printing Office, October, 1920.


University of Cape Coast Catalog, 1984.

University of Ghana Catalog, 1984.

University of Science and Technology Catalog, Kumasi, 1984.


"Vice Chancellor's Address to Congregation, 16th March 1968," University of Ghana Reporter, VII (August 9, 1968), 388-89.

Unpublished Materials


Newspapers

Ashanti Pioneer (Kumasi), December 1, 1961.

Daily Graphic (Accra), February 18, 1956.

Daily Graphic (Accra), March 7, 1958

Daily Graphic (Accra), October 26, 1926, p. 18.

Evening News (Accra), December 10, 1959.

Evening News (Accra), September 25, 1961.

Ghanaian Times (Accra), February 6, 1962.


