

HIGHER EDUCATION IN BARBADOS

Anthony Layne

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HIGHER EDUCATION SYSTEM - BARBA-
DOS - HIGHER EDUCATION HISTORY -
HIGHER EDUCATION DEVELOPMENT -
EDUCATIONAL FUTUROLOGY



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PRESENTATION

With the monograph on Barbados, CRESALC has almost completed the series dedicated to the situation of higher education in Latin America and the Caribbean.

This study, the third published on English-speaking countries of the region, was carried out by Dr. Anthony Layne of the University of the West Indies, following the guidelines suggested by CRESALC.

The information it presents, especially that concerning the conceptualization of higher education, its historical evolution, the structure of its education system, the variables affecting it and its perspectives, offers the researcher useful and sometimes unpublished material on the situation of higher education in Barbados. Furthermore, this information allows the reader to perceive the intrinsic characteristics Barbados has in this field.

Through this series of monographs CRESALC hopes to bring within the reach of politicians, researchers, planners, teachers and people interested on this topic, information and analytical contributions that will not only offer an indepth study of the situation and the perspectives of higher education in a specific country, but will widen the comparative analysis' capacity at the sub regional as well as at the regional level.

Antonio Pasquali
CRESALC/UNESCO

TABLE OF CONTENTS

PRESENTATION	5
ACKNOWLEDGEMENTS	7
INTRODUCTION	9
The Concept of Higher Education	9
Structure of the Study	10
Limitations of the Study	11
CHAPTER 1	
HIGHER EDUCATION IN THE COLONIAL PERIOD	13
Establishment of the Tradition of Elitism	13
Evolution of Codrington College	14
Evolution of the University of the West Indies	16
The Function of the UCWI	19
Establishment of the College of Arts and Science in Barbados ...	20
CHAPTER 2	
PRESENT STRUCTURE OF HIGHER EDUCATION	22
Structure and Types of Degree and Diploma Courses	22
Government and Internal Organization	25
The Old Arrangements	25
The New Arrangements	26
Access to Higher Education	27
Sixth Forms and "A" Level Certificates	28
CHAPTER 3	
ACTUAL SITUATION OF HIGHER EDUCATION: I	32
Enrolment	32
Educational Personnel	38
Student Services	41
Material and Physical Resources	46
Financing of Higher Education	48

CHAPTER 4	
ACTUAL SITUATION OF HIGHER EDUCATION: II	54
Co-operation Between the Cave Hill Campus and the Barbados Community College	54
Higher Education and Research	56
Research, Innovation and Co-operation	59
The Primary Education Project	61
Research in Teaching Programmes	66
The Women and Development Studies Project	67
CHAPTER 5	
FUTURE PERSPECTIVES	72
Different Perspectives on the Future	73
The Issue of Cost-Effectiveness	73
Conclusion	76
APPENDIX	79
BIBLIOGRAPHY	88

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Anthony Layne

INTRODUCTION

This study examines higher education in Barbados in terms of its historical development, present situation and future prospects. Since the term "higher education" means different things to different people, it is important to make it clear from the outset how the term is used in this study. After this is done, it will be useful to say a few things about the structure and limitations of the study.

THE CONCEPT OF HIGHER EDUCATION

Higher education is equated by some writers with postsecondary and/or adult education. Such an equation is viewed in this study as simplistic, although this author accepts that higher education is related to both postsecondary and adult education.

In this study, higher education is defined as formal education which: a) is provided in postsecondary institutions, and b) leads to degrees, certificates and diplomas. Such education is available in universities and colleges which offer degree programmes either autonomously or as affiliates of institutions which award degrees. This definition of higher education leads us to reject the following amorphous concept of higher education which has been put forward by writers such as Perkins:

In many parts of the world, traditional universities are almost the sole agencies for postsecondary education. But as countries develop, the needs for talent become more diverse, students have increasingly different aspirations, and academic programmes and institutions become more specialized to take care of these specialized needs. *Higher education embraces the new diversity of institutions*, of which the university becomes the most important.

Emphasis added. (Perkins, 1976, p. v).

Emphatically, then, to qualify as an institution of higher education the institution must offer some kind of degree programme even if, in addition, it offers certificate and/or diploma programmes.

This author agrees with Williams and Harvey that the following clear distinction should be made between higher education and adult education:

A distinction is made between higher education and adult education. The latter is seen as any programme offered to individuals beyond school leaving age whether formal, non-formal or informal; vocational or non-vocational; initial, remedial or continuing. While adult education is inclusive of higher education, the latter reaches a small and more closely defined population, since it is postsecondary.

(Williams and Harvey, 1985, p.1).

Higher education does not include courses and studies which, though organized by universities and colleges, aim at promoting general culture or knowledge in a strictly limited field (Goodridge and Layne, 1984, p.3).

The definition of higher education which is accepted in this study necessarily causes our examination of the Barbadian case to focus on the University of the West Indies (UWI) and, specifically, the Cave Hill Campus of the UWI. The UWI is a *regional* institution which was established in 1948. It has three Campuses. These three Campuses are at Mona (Jamaica), St. Augustine (Trinidad and Tobago), and Cave Hill (Barbados). The Cave Hill Campus is one of three institutions involved in higher education in Barbados. The other two institutions are Codrington College and the Barbados Community College (BCC). Codrington College has been an affiliate of the UWI for almost two decades. Prior to October 1987, the BCC did not offer any kind of degree programme. In October 1987, the BCC launched an Associate Degree programme as a joint venture with the Cave Hill Campus.

To conclude our remarks on what the term higher education is understood to mean in this study, it should be pointed out that higher education is viewed in this study as something dynamic rather than static. When higher education is viewed simply as a "level" of training, what is measured is static. In contrast, the notion of "stage" immediately suggests a continuous progression, and postulates the taking into account not only of the qualifications earlier obtained within a particular educational system, but also of all the pertinent factors, including professional experience and personal achievements. This dynamic conception of higher education has been promoted by UNESCO in its laudable effort to help resolve the issues surrounding the matters of "equivalence" and "mutual recognition" of degrees and diplomas (see UNESCO, 1982a pp. xii-xv).

STRUCTURES OF THE STUDY

The study contains five chapters. Chapter 1 traces the historical development of higher education in Barbados during the colonial period (1627-1966). Major attention is given to the evolution of Codrington College, since Codrington College was the only institution of higher education in Barbados prior to the establishment in 1963 of what is now known as the Cave Hill Campus of the UWI. Attention is also given to the conversion of the University College of the West Indies (UCWI) into the UWI and the impact of that development on Codrington College. Chapter 1 is relatively short, since the main objective of the study is to examine the *present* situation of higher education in Barbados.

The present situation is dealt with in Chapters 2, 3 and 4. Chapter 2 focusses on the structure and types of degree programmes at the Cave Hill Campus, the government and internal organization of the UWI, and access to higher education. Chapter 3 contains a detailed analysis of the following: enrolment, educational personnel, student services, material and physical resources, and financing of higher education. In order to facilitate a smooth flow of ideas, three other important aspects of the present situation are dealt with not in Chapter 3, but in Chapter 4. Those three aspects are research, recent important innovations, and inter-institutional co-operation. Chapters 2-4 are essentially descriptive and constitute the core of the study.

Chapter 5, the final chapter, deals with the future of higher education in Barbados in the light of the historical analysis in Chapter 1 and the description of the present situation in Chapters 2-4. It does not attempt to predict how higher education will develop in Barbados in the future. Rather, it outlines alternative lines of development which would result from the adoption of different perspectives on the future which have been used in educational planning, as well as what, in this author's opinion, needs to be done in Barbados to have higher education make an even greater contribution to national development.

LIMITATIONS OF THE STUDY

As with any study, this one has limitations. The limitations are both substantive (relating to content) and methodological. On the substantive side, no attention has been given to the question of technological research in higher education in Barbados. Because of this, the picture of what has been happening in the Faculty of Natural Sciences at the Cave Hill Campus is not as comprehensive as it should be. However, attention has been given to scientific research, and especially to the integration of scientific research with teaching programmes.

Still on the substantive side, the study has not been able to provide any hard data on the economic background of students in higher education in Barbados. Such data do not appear to be available, and the time-constraint prevented the author from collecting such data himself.

On the methodological side, the study may be placed in the category of library or desk research. It would have been nice to have included in the study survey data on the perceptions held by members of the University community, the Barbados Ministry of Education, and other interest groups, such as employers and prospective students, on both the cost and effectiveness of higher education in Barbados. Unfortunately, it was not

possible to carry out such a survey, but perhaps some other study on higher education in Barbados will concern itself specifically with this very important matter.

Notwithstanding its limitations, the study is valuable in that, to the best of this author's knowledge, there is no published study on higher education in Barbados. It is hoped that the study will trigger further research into higher education in Barbados, a country which is widely regarded as having the most "highly developed" educational system in the Commonwealth Caribbean.

CHAPTER 1

HIGHER EDUCATION IN THE COLONIAL PERIOD

Barbados was a colony of Great Britain from 1627 to 1966. Since the dominant value-system in colonial dependencies mirrors that of the dominant class in the metropolitan country, it should come as no surprise that in colonial Barbados higher education meant essentially overseas university education for a fortunate few to become steeped in the classics and/or to enter the "learned professions" of law and medicine. For most of the colonial period in Barbados, higher education was reserved for the sons of the oligarchs, the sons of the wealthy and powerful sugar planters and merchants. However, in the closing decades of the colonial period, a few non-Whites began to have access to this traditionally highly prized type and level of education. This chapter deals with this tradition of elitism in higher education in Barbados up to the opening of the College of Arts and Science in 1963.

ESTABLISHMENT OF THE TRADITION OF ELITISM

There was no institution of higher education in Barbados prior to the year 1830. Consequently, those Barbadians who were in a position to aspire to higher education looked to institutions in the metropolis. Since a regime of Black slavery lasted in Barbados from the 1640s to August, 1834, the few Barbadians who were in a position to aspire to higher education in the pre-1830 period were those members of the white minority who were in a position to pay for higher education. Up to the year 1813, the Barbadian oligarchs paid out of their own pockets for their sons to attend the top British universities. Between 1813 and 1829, they utilized an annual university scholarship which the Society for the Propagation of the Gospel (SPG) provided for graduates of the racially -and class- exclusive Codrington Grammar School to study law, medicine or theology in Britain for four years (see Bennett, 1958, pp. 8-9). After the SPG withdrew its annual scholarship, the Barbadian oligarchs paid once again out of their pockets for overseas university education for their sons, until the Barbados Scholarship was introduced in 1890.

The SPG's withdrawal of its annual scholarship in 1829 cleared the way for Barbados' first institution of higher education to commence operations in 1830. That institution was Codrington College (which still exists). Like the Codrington Grammar school, Codrington College was founded by the SPG out of funds bequeathed by a wealthy Barbadian planter, Christopher Codrington, in his will of February 22, 1703. Codrington had

bequeathed the funds for the establishment of a divinity college (see Appendix I). The SPG built the college and gave it the name Codrington College, but allowed Codrington College to function only as a grammar school, the Codrington Grammar School, up to 1830. It was only after William Hart Coleridge, the first Anglican Bishop of Barbados, criticized the SPG for not carrying out Christopher Codrington's design for a divinity college that the SPG got out of the business of financing university education in the metropolis for the sons of the Barbadian planter-merchant elite. However, the establishment of Codrington College as a theological seminary in 1830 in no way weakened the tradition of elitism in higher education.

EVOLUTION OF CODRINGTON COLLEGE

With the transition of Codrington College from a Grammar school to a full-fledge college, the SPG set about to place the college on the academic footing originally contemplated by Christopher Codrington. The thinking of the SPG was that the college should provide an adequate education for those students from throughout the region who were disposed to devote themselves to the Christian ministry in their native islands, without such students having to seek the necessary qualifications in Europe at a distance from their friends and relations. Between 1830 and 1847, some 111 students graduated from the College. Those 111 graduates included 15 readers and Catechists, as well as four students who were candidates for immediate ordination but not regular students. The graduates in question were made up of "Exhibitioners" and "Commoners", as has been pointed out by Holder:

Along with the Exhibitioners, there were the Commoners who were not prospective candidates for Holy Orders. Whereas the Exhibitioners received their education as well as their board and lodging at the expense of the trust (SPG), the Commoners were charged for tuition, the use of their room, and the library, in addition to other fees. In 1847, a Commoner was charged about fifty-five pounds for the academic year.... [It] would seem as if some Commoners went on to become priests and ministers, as was the case with T.A. Browne of the 1837 class, and H. Richards of the 1838 class.
(Holder, 1987, p. 11).

Barbadians accounted for the bulk (60%) of the 111 graduates, and West Indians for 86%. Thirteen of the graduates (12%) were from England, one was from Ireland, and another was from New Brunswick. In short, the influence of the College extended far beyond the shores of Barbados.

The oligarchy in Barbados resisted the effort of Codrington College to carry out its theological mission. Indeed, when Richard Rawle became Principal of the College in 1847, he discovered that the Bishop of Barbados was fighting against a movement to have the College revert to its role as a Grammar school, a movement led by the Chief Justice of Barbados, Sir Bowcher Clarke. Rawle took the side of the Bishop, Bishop Parry, and it was their side that prevailed even though the Chief Justice had threatened to take the issue to court. The complete text of Bishop Parry's letter to Principal Rawle outlining why the College should remain as a college and not be reconverted into a grammar school is in Appendix 2.

The year 1875 marked a significant academic milestone in the evolution of Codrington College. In that year, Principal T.H. WEBB and Bishop Mitchinson of Barbados sought to provide for students of Codrington College a degree programme which would be readily accepted in England. They approached the University of Durham, and it was agreed that the College should be affiliated to Durham. Indeed, in 1875, a Classical Faculty was set up at the College with a programme leading to the B.A. degree of Durham University. The establishment of the Classical Faculty was intended not only to make available a degree readily acceptable in England, but also to cope with the problem of a paucity of students at the College. The paucity of students had led Richard Rawle: a) to threaten to seek greener pastures in 1848, and b) to describe his position in 1863 as being "very much that of a steam saw-mill in an untimbered country" (see Gordon, 1963, pp. 73, 227-228).

The affiliation of the College with Durham University continued right through to 1955, with the students reading for degrees in theology, classics and other subjects. The "mixed" nature of the College (secular students and ordinands) enabled some of the leaders in several areas of West Indian society to acquire university degrees which they would not otherwise have acquired. However, the college was never really held in high esteem by the Barbadian oligarchs, and was neglected by the SPG for most of the period. The tradition of university education in the metropolis for a few privileged Barbadians to enter the "learned professions" of law and medicine was strengthened with the introduction of the Barbados Scholarship in 1890, and the SPG's neglect of the College almost led to the closure of that institution in 1899.

Interestingly enough, even though the Barbados Legislature made the highly prestigious Barbados Scholarship tenable at the Universities of Oxford and Cambridge, it did not wish to see the end of Codrington College. The Barbados Legislature provided two annual Island Scholarships tenable at Codrington College from 1878, and was instrumental in getting the SPG to provide funds to keep the College open when disaster threatened in 1899 (*ibid.*, p. 290).

The third stage in the evolution of Codrington College began in 1913 when, under the Principalship of A.H. Anstey, the College became involved in teacher training. In that year, the "Rawle Training College for Men" was opened at the College. The teacher trainees were housed in a building constructed a few hundred yards south of the theological college, and shared in the social and religious life of the College. In 1914, a similar institution was established for women. The life of Codrington College as a teacher training institution was relatively short. It ended in 1948 when the Barbados Government established Erdiston College with a view to modernizing teacher training in the island.

The fourth stage in the evolution of Codrington College commenced in 1952. In that year, the SPG passed a resolution discontinuing the acceptance of students for classical studies at the College. As a result of that decision, the last batch of secular students to read for the degree in Classics awarded by Durham University matriculated at the College in 1955. That batch of students graduated in 1958. After 1958, only two students at the College were able to obtain theological degrees with all of the required work being done at Codrington (Holder, *op. cit.*, p. 32).

By the 1960s, then, Codrington College was still in existence despite devastation by fires and hurricanes (see Appendix 3), neglect by the SPG, and the tradition of university education in the metropolis for a chosen few. However, by the 1960s the College had come to be overshadowed by the University of the West Indies, and by 1971 Codrington College was offering, in affiliation with the University of the West Indies, programmes leading to the Licentiate in Theology and the B.A. degree in Theology. It is appropriate at this juncture, therefore, to deal with the evolution of the University of the West Indies, which was opened as the University College of the West Indies in October 1948.

EVOLUTION OF THE UNIVERSITY OF THE WEST INDIES

At the end of World War II, higher education in Barbados was still reserved for a tiny portion of the population. Access to university education in the metropolis was reserved for the wealthy persons in the society, and for the winner of the Barbados Scholarship. In 1945, the Barbados Scholarship was still for boys only, and was worth the princely sum of one thousand pounds sterling together with certain allowances and increases owing to war-time conditions. In stark contrast, each of the two Island Scholarships tenable at Codrington College was valued at forty pounds sterling. The educational authorities were interested in increasing the efficiency of the method of awarding the Barbados Scholarship, rather than in democratizing access to university education. In 1945, Howard Hayden,

the then Director of Education, successfully proposed to the Barbados Legislature that candidates for the Barbados Scholarship be required to sit an examination of Open Scholarship standard, in order to remedy a situation in which young candidates had to spend a further two years in school until their old competitors were exhausted (see Hayden, 1945, p. 390).

There are two other pieces of information which should be provided to situate the discussion of the establishment of the University College of the West Indies. The first concerns access to secondary education, and especially to the Sixth Forms, where candidates were prepared for the Barbados Scholarship Examinations. In 1944, the 11 Government Assisted Secondary schools had a total of about 2,000 pupils, 44% of whom were in the three schools with Sixth Forms (Harrison College, Queen's College, Lodge School). As can be seen in Table 1.0, the tuition fees charged by the three Sixth Form schools were way above those charged by the other schools, and this was especially true of Lodge School (formerly the Codrington Grammar School). Since access to secondary education was restricted to the few who could pay or who were fortunate to win the handful of available Government Exhibitions, the competition for the Barbados Scholarship constituted an exercise in which pupils were "exercised like racehorses in a steeplechase only a chosen few could hope to win" (Lewis, 1968, p. 230).

The other piece of information concerns the political climate at the time. At the end of World War II, the metropolitan Government and the British West Indian legislatures were engaged in a search for ways of preventing a repetition of the violent racial and political upheaval which the region experienced in the 1930s. In the specific case of Barbados, the violence broke out in 1937. Since the forces of decolonization were gaining strength at a global level by the end of World War II, British colonial policy hit upon the device of regional university colleges as a means of promoting "development" in the British colonies. It was, then, in the context of the persistence of educational elitism and the global movement for decolonization that the University College of the West Indies was established in 1948.

TABLE 1.O. ENROLMENT IN, AND EXPENDITURE ON SECONDARY SCHOOLS, 1944

SCHOOL	N° of Pupils	Government Grant	Per capita cost to by Government			Per capita cost met fees etc.			Total cost per capita			Capital expenditure by government 1934-44
			£	s	d	£	s	d	£	s	d	£
Harrison College	445	2,853	6	8	2	9	5	6	15	13	8	15,000
Lodge School	200	2,180	10	18	0	13	16	3	24	14	3	2,050
Queen's College	278	1,876	6	14	11	6	12	5	13	7	4	—
Combermere	423	2,111	4	19	9	4	18	11	9	18	8	30,283
Coleridge	49	438	8	18	9	4	18	6	13	7	3	—
Parry	34	330	9	14	1	7	0	9	16	14	10	—
Alleyne	38	415	10	18	5	3	8	11	14	7	4	1,560
Christ Church Boys'	155	838	5	8	1	4	16	6	10	4	7	—
Christ Church Girls	102	578	5	13	4	4	2	9	9	16	1	—
Alexandra	83	553	6	13	3	6	7	4	13	0	7	725
St. Michael's	282	1,575	5	11	8	4	9	4	10	1	0	3,200

Source: Hayden, op. cit., p. 36

The Function of the UCWI

The University College of the West Indies (UCWI) was established by the British Government in October, 1948, with a single campus, at Mona in Jamaica. The UCWI was later re-named the University of the West Indies (UWI), in 1962. In the period between 1948 and 1962, the UCWI was an affiliate of the University of London.

Although the UCWI had a single campus, it was explicitly intended to be a regional institution. It was supposed to "fuel an intellectual energy which would support the aspirations of the British Caribbean people for political, social and economic integration" (Marshall et al, 1986, p.5). In its actual functioning, the UCWI was no different from other regional university colleges established by the British Government in various parts of the British Colonial Empire at the end of World War II. The most important function of the regional university colleges in question was to produce "an indigenous elite, culturally and intellectually similar to the colonial administrators and willing to work in harmony with them" (Pratt, 1977, p. 531). Virtually everything at the UCWI was transplanted from Britain:

Halls had 'high' tables. Students were resident and attended classes and dinner in red gowns. Curricula were shaped on British models and, on the successful completion of a course of study, students were awarded degrees of the University of London...

(Drayton, 1981, p. 8).

The author just cited has recalled how Sir James Irvine, the Chairman of the Committee which organized the setting up of the UCWI, once explained to her that the UCWI was set up a) "to cream off the best and most articulate West Indians", and b) to train that elite to hold the more "radical and irresponsible elements of the population in check" (ibid.).

Student registration at the UCWI was small from the outset, and was kept at a low level. The UCWI opened its doors in October, 1948, with a total of 33 registered students (23 male and 10 female), and had a mere 695 students (446 male and 249 female), on its roll in 1959-60 (*UWI Statistics 1982-83*, p. 1). In keeping with the tradition of academic education of the classical type or for a privileged few to enter the learned professions the UCWI had three Faculties: Arts, Natural Sciences and Medicine.

With the establishment of the UCWI, the Government of Barbados increased its financial assistance to higher education. Under the Government Scholarship and Exhibitions Act, 1949, five Barbados Scholarships were made available, instead of one as had been the case since the nineteenth century. The Barbados Scholarships were normally tenable at overseas universities, but as we shall soon see, some of the Barbados Scholars opted to attend the UCWI. Under the 1949 Act, the Government re-

affirmed its commitment to providing two annual Island Scholarships to Codrington College, and made provision for two annual Government Exhibitions tenable at the UCWI. Those two Exhibitions were awarded to runners-up in the Barbados Scholarship Examinations.

The Government of Barbados also provided assistance for higher education under the Higher Education (Loan Fund) Act, 1953, and the Government's Training Scheme. Three kinds of facilities were available under the Government Training Scheme: bursaries to teachers in service who wished to better their qualifications; three-year degree scholarships for teachers tenable at the UCWI; and three-year Diploma courses in Domestic Science at the City of Bath Training College.

It should be clear from what has already been said that the Barbadians who attended the UCWI had the opportunity to study for the Bachelor of Arts degree, the Bachelor of Science degree, or a Degree in Medicine. The Barbadians who attended the UCWI with the aid of the prestigious Barbados Scholarships and Government Exhibitions tended to study Medicine. This was particularly true of the Barbados Scholars. In the academic year 1956-57, for instance, eight of the 25 Barbados Scholars who were resident at universities were at the UCWI, and seven of those eight were in Medicine (*Barbados Education Department 1954-57 Report*, pp. 33-34). In that same academic year, three of the seven Barbados Exhibitioners at the UCWI were in Medicine. In short, the UCWI was geared toward the production of an indigenous academic elite, and the Barbadians who attended that institution with the aid of the more prestigious awards had no illusions about the status enjoyed by medical doctors in their society.

Establishment of the College of Arts and Science in Barbados

The UCWI became the UWI on April 2, 1962. That development came hot on the heels of Jamaica's becoming the first country in the region to gain its political independence, in 1961. It was quickly followed by the establishment in Trinidad and Tobago in 1962 of the St. Augustine Campus of the UWI, the withdrawal by the Government of Guyana of its support for the UWI in 1963, and the establishment in Barbados in 1963 of a campus of the UWI. Today, the UWI is still a three-campus institution.

The campus of the UWI which was opened in Barbados in 1963 was known as the *College of Arts and Science*. It was opened at a temporary site near the Deep Water Harbour, in Bridgetown, the national capital, and remained at that site until 1967. In 1967, the College of Arts and Science was moved to its permanent site at Cave Hill and was re-named the Cave Hill Campus. The Cave Hill Campus was officially opened in 1968.

As was implied in the name, the College of Arts and Science had two Faculties, one of Arts and the other of Science. The College of Arts and Science was opened with a total of 118 registered students. It was clear from the very beginning however, that, at least in terms of access, the College of Arts and Science would be more of a mass institution than the UCWI ever was. From the very beginning, tuition was free at the College of Arts and Science for all Barbadians who met the entry requirements and were granted admission. In addition, teachers who gained admission to the College of Arts and Science were granted leave on half pay for up to three years. The College of Arts and Science only offered first-degree programmes.

As Barbados entered Independence in 1966, therefore, the question which presented itself was whether higher education in the island would a) undergo greater democratization, and b) become harnessed to the requirements of national development. All eyes were on the UWI, for Barbadians were to be found on all three campuses of that institution. The College of Arts and Science was the object of special attention for at least two reasons. Firstly, more and more Barbadians were recognizing that they did not have to travel to metropolitan countries or even to Jamaica to receive university education. Secondly, in 1952 Codrington College had reverted to its role as a theological seminary, and the College of Arts and Science was therefore in a position to show what it could do as the island's only secular institution of higher education. The question was whether in the post-colonial period the Cave Hill Campus would rise to the challenge of becoming an institution of which Barbadians from all walks of life could be justly proud.

CHAPTER 2

PRESENT STRUCTURE OF HIGHER EDUCATION

This chapter deals with the present structure of higher education in Barbados. It focusses on the structure of the UWI and the Cave Hill Campus. The first matter which is given attention is the structure and types of degree and diploma courses at Cave Hill. The second is that of the government and internal organization of the UWI with special reference to the Cave Hill Campus. The third and final matter which is examined is that of access to higher education.

STRUCTURE AND TYPES OF DEGREE AND DIPLOMA COURSES

The latest information on the structure of the degree and diploma courses at the University and its Cave Hill Campus can be found in the *UWI Calendar*, Vol. 2, for the academic year 1987-88. The Bachelor's degrees are based on the British ones, and the B.A./B.SC./LL.B. involve three years of full-time study from G.C.E. "A" level entry. There is a Medical course leading to the MB. BS. (Bachelor of Medicine and Bachelor of Surgery). This course was originally a five-year course, but has been reduced to four and a half years. A special two-year B.Ed. is awarded to Teachers College graduates having some experience. Students admitted to the Preliminary year in Natural Science at Cave Hill and at the other two campuses spend an extra year and may transfer to other Faculties.

Honours classifications of First, Upper and Lower Second are awarded in addition to a Pass Degree, except in Medicine where the classifications are Honours and Pass. Up to the academic year 1984-85, the Faculty of Education awarded the B.Ed. degree in the categories of Distinction and Pass. However, from the academic year 1985-86 the B.Ed. degree has been awarded with the same classifications used by the other Faculties. Degree programmes at the University and its Cave Hill Campus make provision for specialist as well as more general options, but only in Natural Sciences is the title "Special Degree" used.

Certificates are awarded for work at Undergraduate level not covering the Degree programme. The term Diploma is usually reserved for the one-year Post-graduate course, but is occasionally used for one to which non-graduates are admitted, based on experience in the field. At Cave Hill, there are two Certificate programmes, one in Educational Management and Administration, and the other in Public Administration. Like the Diploma in Education, the Certificate in Educational Management and Administra-

tion is an in-service programme. However, whereas the persons admitted to the Diploma in Education programme already have degrees, those admitted to the Certificate in Educational Management and Administration do not necessarily possess degrees.

Higher degrees such as M.A., M.Sc., M.A.(Ed.), M.Phil. and LL.M. are all offered at the Cave Hill Campus. Usually, they are based on one or two years' study involving course work and/or thesis. However, the M.Phil. is a two-year research degree. The Ph.D. is a three-year research Degree. In Medicine, the DM is awarded as the specialist qualification and generally involves four years of "residence".

Let us now look more closely at the programmes available in the various faculties at Cave Hill. The Faculty of Arts and General Studies has B.A. degree programmes in which courses are offered in the following: Education, English, French, Government, History, Law, Linguistics, Sociology and Spanish. Courses for the B.A. (Theology) and the Licentiate in Theology (L.Th) are provided for students of Codrington College, which is an affiliate of the University. Candidates for the L.Th. must pursue a prescribed course of study extending over not less than three and not more than five academic years before being eligible for the award of Licentiate. Candidates for the degree of B.A. (Theology) are required to pursue a three-year course of study comprising 14 courses, 10 of which must include University Courses in Biblical Studies, Church History, Systematic Theology and Philosophical Studies, and Practical and Pastoral Studies.

The Faculty of Education offers programmes for the Bachelor of Education, the Diploma in Education, and the Certificate in Educational Management and Administration. In addition, the Faculty has an interdisciplinary programme called the B.A./B.Sc. with Education. The Education component of the B.A./B.Sc. with Education is designed as the first three years of an integrated four-year course for undergraduates who are teachers or who intend to become teachers, and who, on graduating with a B.A. or B.Sc. degree, intend to pursue a professional training programme such as the Diploma in Education. The students in this programme may be registered in the Faculty of Arts and General Studies or in the Faculty of Natural Sciences. Both full-time and part-time students may be admitted to the programme. Students registered in the Faculty of Natural Sciences are not permitted to enter the B.Sc. with Education programme before their N2 year.

In the Faculty of Education, programmes are also available at the Masters and Ph.D. levels. There is in fact only one type of Masters Programme available in Education at present. That programme is the M.A.(Ed) which involves course work and thesis. The M.A.(Ed) was introduced in the academic year 1986-87.

The Faculty of Law offers the LL.B., the LL.M., the Ph.D., and the Diploma in Legislative Drafting. The LL.B. is offered with the first-year programme available at Cave Hill, Mona and St. Augustine, and the second and third year programmes at Cave Hill only. The LL.M. and Ph.D. degrees can be pursued in Legislative Drafting, Tort and Trusts.

The Faculty of Law participates in a Challenge Programme on which more will be said in Chapter 4. Suffice to note for the time being that Part I of the LLB is offered to students in the Challenge Programme in the Non-Campus Countries, and that the Certificate in Introductory Legal Studies can be pursued by students in the Challenge Programme who have completed the Part I LLB.

The Faculty of Natural Sciences offers the B.Sc. degree in the following subjects: Bio-Chemistry (Advanced); Biology; Chemistry; Computer Science; Mathematics; Physics; Meteorology. The B.Sc. in Meteorology is offered in collaboration with the Barbados-based Caribbean Meteorological Institute which is an affiliate of the UWI. The Faculty of Natural Sciences has two diploma programmes, one in Electronics and Computer Technology and the other in Environmental Studies. Higher degrees programmes comprise: the M.Sc., M.Phil. and Ph.D. in Mathematics; and the M.Phil. and Ph.D. in Chemistry or Physics or Biology.

The Faculty of Social Sciences offers the B.Sc. in the following disciplines: Accounting; Applied Sociology; Economics; Economics and Accounting; Economics and History; Economics and Law; Economics and Management; Economics and Mathematics; Hotel Management (Part I); Political Science and Law; Public Administration; Public Administration and Law; Sociology and Political Science; Sociology and Law; and Tourism Management (Part I). Part II of the B.Sc. Hotel Management and the B.Sc. Tourism Management is available only at the College of the Bahamas, an affiliate of the university. The Faculty of Social Sciences also offers the Diploma in Public Administration, the Diploma in Management Studies, and the M.Sc., M.Phil., and Ph.D. degrees in Economics, Government and Sociology.

Finally, there is the Faculty of Medical Sciences. This Faculty offers the final two years of the MBBS degree, as well as post-graduate Diploma programmes in Anaesthesia and Intensive Care, Child Health, Obstetrics and Gynaecology and Ophthalmology. In addition, the Faculty of Medical Sciences offers the M.Sc. degree in Family Medicine, and the Doctor of Medicine (DM) degree in Anaesthesia and Intensive Care, Family Medicine and Obstetrics and Gynaecology.

GOVERNMENT AND INTERNAL ORGANIZATION

October, 1984, was a crucially important date in the life of the UWI and its three Campuses. On that date, what the governments of the region have called the "restructuring" of the University took effect. "Restructuring" comprised the replacement of the University's original Charter, Statutes and Ordinances with an amended Charter as well as amended Statutes and Ordinances. The original Charter made it clear that the University was a regional institution which, though funded by the regional governments, was not answerable to any particular government. The restructuring which took effect in October, 1984, has involved: a) the transfer of considerable functions and powers from the central organs of the University to newer organs at each Campus, b) the erosion of the unitary concept which earlier prevailed, and c) the effective placing of control of the Campuses in the hands of the Governments of the three Campus Countries. In order to gain greater insight into the nature of the change which has taken place since 1984 in the government of the University and its Campuses, it is important to describe briefly the arrangements which existed prior to October, 1984.

The Old Arrangements

Prior to October, 1984, the Authorities at the University were the University Council, the University Senate, the Guild of Graduates, and such other bodies as may have been prescribed by Statute. The Senate was the academic authority. The Council was, in the words of the Charter, "the governing and executive body of the University with power to manage all matters not provided otherwise by this Our Charter or the Statutes" (UWI Calendar, 1978, p. 12).

Under the old arrangements, Statute 16 laid it down that:

The Council shall consist of the following persons:

- a) Members ex-officio: the Chancellor, the Vice-Chancellor, the Pro-Chancellor, the Treasurer, the Pro Vice-Chancellors, the Campus Principals, the Deans of the Faculties;
- b) Nine members elected by the Senate from the members of the Senate provided that there is at least one member of professorial rank and one non-professorial member from each campus;
- c) Four graduates elected by the Guild of Graduates from among their own number;
- d) One member appointed by the government of each of the Contributing Territories;
- e) Not more than seven persons appointed by the Chancellor, regard being had to the desirability of including among the

members of the Council persons of high international, regional or national standing from the professions, commerce, industry, the public service and similar fields;

- f) One student from each campus elected annually pursuant to the provisions of Statute 36.
(*ibid.*, pp. 20-21).

Statute 3 of the old Statutes specified who were the officers of the University. The Officers comprised: the Chancellor, the Vice-Chancellor, the Pro-Chancellor, the Treasurer, the Pro Vice-Chancellors, the Campus Principals, the Deans of the Faculties, the University Registrar, the University Bursar, the University Librarian, and "such other members of the University as may be granted by Ordinance the status of Officers". It should be pointed out that a) the Chancellor was Head of the University, b) the Vice-Chancellor was the academic and executive head, and c) the Pro-Chancellor served as Chairman of the Council in the absence of a Chancellor.

The structure outlined above was always looked upon with a jaundiced eye by some of the regional governments. By the 1970s, there was general agreement among the regional governments that the Non-Campus Countries (NCCs) in particular were profiting relatively little from the operations of the University, and that more resources should be located in easy reach of the students in the NCCs. It has been appropriately pointed out by the Marshall Committee that the demand for more decision-making at source on the needs of individual countries inferred the dilution of the University "Centre", and led by a natural logic to a restructuring of the University in 1984 (Marshall et al, 1986, pp. 6-7).

The New Arrangements

Under "restructuring", each Campus now has its own Campus Council, Campus Grants Committee, Campus Technical Advisory Committee, as well as a Campus Finance and General Purposes Committee to which the Campus Council delegates some of its responsibilities. The new bodies which have been added at the Campus level have paralleled those at the Centre, and are composed largely of persons from the Campus Country, but with some representation from a) other Campus and Non-Campus Countries, and b) the University Centre.

It should be stressed that the functions and powers of the University Centre have been diluted, rather than eliminated. The University Council has retained overall responsibility for common services, University programmes, and programmes in the NCCs. The University Council is still responsible for the making of senior administrative and academic appoint-

ments. The Senate is still the principal academic authority, with responsibility for the award of degrees, diplomas and certificates. However, there can be no doubt that the new organs which have been created at the Campus level are forces to be reckoned with.

Through its standing Campus Finance and General Purposes Committee, the Campus Council at Cave Hill has control of the finances of the Cave Hill Campus. The powers of the Campus Council are wide, and include the appointment and promotion of faculty employed at the Campus up to the level of senior lecturer. The Campus Academic Board exercises wide powers in academic matters, largely as a result of delegation from the Senate. The Campus Grants Committee (CGC) is perhaps the key to it all, since it is the CGC, rather than the University Grants Committee (UGC) which makes the decision about the level of funds to be provided to the Government of the Campus Country for a given triennium. We will return to the CGC when we deal in detail with the question of financing.

With regard to the internal organization of the Cave Hill Campus specifically, it should be noted that the academic and executive head is the Principal, who is also a Pro Vice-Chancellor. Beneath the Principal is the Director of the Office of University Services (OUS). The Director of the OUS is also a Pro-Vice Chancellor, and acts as Principal in the absence of the Principal. Beneath the Principal and the Director of the OUS are the heads of the various non-academic units and the Deans of the Faculties. As was previously mentioned, there are six Faculties. The non-academic units are: Administration, the Library, the Computing Centre, the Learning Resources Centre, the Department of Extra Mural Studies, and the OUS.

ACCES TO HIGHER EDUCATION

Admission policies in universities are wide-ranging when such policies are examined on a global basis. They include: Open admissions, admission of students on a trial basis, admission on the basis of age or competence or quantity and quality of work experience, the enlargement of traditionally limited faculties through the dropping of special entrance requirements, the use of quotas (with the granting of bonus points to disadvantage and minority groups), the use of State or regional proficiency examinations so that students compete only against those in their regions, grants and/or loans, and so on (see Goodridge and Layne, *op. cit.*, pp. 5-6).

In principle, it can be said that the Cave Hill Campus (and the University) has a flexible admissions' policy. The regulations governing matriculation at the University specify that normally eligibility for admission is restricted to applicants who have attained the age of 17 years on 31st De-

member of the year of admission, but that applicants below this age who satisfy the normal (GCE "A" level) matriculation requirements are also eligible for admission.

For normal matriculation for admission to degree courses at the University, eligible persons are those whose qualifications include a GCE "O" level pass in English or the equivalent. Students whose native language is not English are required to perform satisfactorily in an approved English Language requirement, candidates are eligible for admission if the a) have passed all the examinations for a degree of any university recognized by the University Senate for matriculation purposes, or b) are holders of General Certificates of Education or the approved equivalents.

The holders of General Certificates in Education may be admitted under Scheme A or Scheme B (see *UWI Calendar*, 1987-88, op. cit., pp. 130-140). Scheme A consists of passes in five subjects, of which at least two must be at the Advanced level or the equivalent. Scheme B comprises passes in four subjects, of which three must be at the Advanced level or the equivalent. There are regulations governing the subjects which need not have been passed at one and the same occasion.

Since the applicant must possess at least two Advanced level ("A" level) certificates, the question is who has access to "A" level certificates. An answer to this question requires that we examine, even if briefly, the issue of access to Sixth Forms.

Sixth Forms and "A" Level Certificates

Barbados has 21 Government secondary schools, but only four of those schools have Sixth Forms. The four schools in question are Harrison College, Queen's College, The Lodge School, and Combermere. Harrison College and Queen's College have long been out-performing the Lodge School and Combermere in the "A" level Examinations. This is largely explained by the fact that Harrison College and Queen's College receive the cream of the academic crop from a highly selective Common Entrance Examination (CEE) for Government Secondary schools which all pupils who have reached the age of 11 years are eligible to sit.

Empirical research has long established that children from economically and/or educationally advantaged homes outperform their counterparts from disadvantaged homes in academically-oriented examinations such as the CEE. It was ostensibly because of public disquiet over: a) the superior pupil resources possessed by Harrison College and Queen's College in academic terms and b) the then policy of leaving the allocation of Sixth Form Places in the hands of the headteachers of the Sixth Form schools, that in 1985 the Minister of Education announced that all pupils wishing to enter the Sixth Forms would have to apply to the Ministry of

Education. Furthermore, a policy-decision was made in 1985 that: 1) only applicants with a minimum of five "O" level certificates would be eligible for consideration for Sixth Form places, and 2) top priority would be given to the highest qualifiers.

With the centralization of the allocation of Sixth Form places in the hands of the Ministry of Education, Harrison College's position of dominance was reinforced. Observe, in Table 2.0, that in 1985-86 Harrison College took in a total of 96 Sixth Form students. Those 96 students represented 38.4% of all the students who were awarded Sixth Form places. Observe, too, that 72.9% of Harrison College's intake was from Harrison College itself. Ironically, the centralization of the allocation of Sixth Form places in the hands of the Ministry of Education was supposed to give pupils of the non-Sixth Form Schools-especially pupils of the (low-prestige) Newer Secondary Schools - an "equal chance" of receiving Sixth Form education, but in fact strengthened the hold of the Older Secondary schools on sixth Form places at Harrison College.

That the "equality of opportunity" which the Ministry of Education claimed to be promoting with its policy-shift was mythical rather than real was also evidenced in the fact that Harrison College and Queen's College continued to have a monopoly on the students with nine certificates (Table 2.1). Thirteen (13) of the 15 candidates with nine certificates were awarded places at Harrison College. Harrison College had virtually nothing to do with the candidates with five certificates, and the example set by Harrison College was followed by Queen's College.

**TABLE 2.0 INTAKE OF STUDENTS INTO THE SIXTH FORMS,
BY TYPE OF SCHOOL, 1985-86**

Type of School	SIXTH FORM SCHOOLS				Total
	Harrison	Queen's	Lodge	Com- bermere	
OLDER SECONDARY					
St. Michael	7	6	6	9	28
Foundation	8	2	3	8	21
Coleridge/Parry	—	—	1	1	2
Alexandra	—	—	—	2	2
Alleyne	1	—	—	—	1
Lodge	1	—	10	1	12
Combermere	—	—	—	33	33
Queen's College	8	59	4	1	72
Harrison College	70	—	—	1	71
Sub-Total	95	67	24	56	242

SIXTH FORM SCHOOLS

Type of School	Harrison	Queen's	Lodge	Com- bermere	Total
NEWER SECONDARY					
Parkinson	—	—	1	—	1
Princess Margaret	—	—	—	1	1
Roebuck	—	—	—	1	1
Springer Memorial	—	—	—	1	1
Sub-Total	—	—	1	3	4
APPROVED INDEPENDENT					
Presentation College	—	1	1	—	2
St. Winifred's	1	—	—	—	1
Sub-Total	1	1	1	—	3
GRAND TOTAL	96	68	26(—1)*	59	250

* This student was supposed to go to Harrison College if there was room.

**TABLE 2.1 STUDENTS ADMITTED TO SIXTH FORMS
BY NUMBER OF PASSES 1985-86**

SCHOOL	NUMBER OF PASSES					TOTAL
	9	8	7	6	5	
Harrison College	13	35	31	16	1	96
Queen's College	2	25	15	21	5	68
Lodge	—	—	3	8	16	27
Combermere(1)	—	—	—	—	—	59
TOTAL	15	60	49	45	22	250

1. The breakdown by Combermere is not available but it is evident that Combermere did not receive any of the candidates with the highest qualifications.

The scramble for Sixth Form places must be understood in the context of: a) the very limited number of available Sixth Form places, and b) the policy-decision which was taken by the Government in 1986 not to increase to any significant degree the number of such places. Observe, in Table 2.3 that in 1983-84 (the latest year for which official statistics are available) that enrolment in the public secondary schools was 1.5 times higher than it was in the academic year succeeding Independence, but that the number of Sixth Form students remained essentially unchanged at around 400 persons. The Barbados Government has taken the position that those applicants for Sixth Form places who are not awarded places can always attend the Barbados Community College. The trouble with this argument is that the Barbados Community College does not have an unlimited supply of places, and that Harrison College has come to have a strangle hold on the Barbados Scholarships.

**TABLE 2.3 ENROLMENT IN FIFTH AND SIXTH FORMS
IN GOVERNMENT SECONDARY SCHOOLS, SELECTED YEARS**

	Enrolment in	Fifth Form		Sixth Form	
	Public Secondary Schools	N°	%	N°	%
1967-68	13,241	1,326	10.0	399	2.0
1970-71	14,407	1,828	12.7	372	2.6
1971-72	15,150	2,096	13.8	289	1.9
1972-73	16,424	2,141	13.0	305	1.9
1973-74	17,059	2,470	14.5	319	1.9
1976-77	19,064	3,316	17.4	447	2.3
1977-78	19,660	3,555	18.1	437	2.2
1983-84	20,454	5,060	24.7	412	2.0

Sources: Ministry of Education Annual Reports; Digest of Education Statistics Barbados, 1983-84.

The fundamental point which is being made, then, is that while the University's admissions policy may be said to be more-or-less "open", there are forces at work which militate against all but a relatively small number of students acquiring the "A" level certificates which facilitate admission to the University and its Cave Hill Campus. It is important to balance out the picture, however, by noting that the University also allows for lower-level matriculation and for the special admission of mature students. To be eligible for lower level matriculation, the student must hold passes in an approved G.C.E. or Caribbean Examination Council (CXC) examination in five approved subjects not necessarily obtained at one and the same occasion. The subject must include: English Language, Elementary Mathematics, either a foreign language or an approved science (not Geography or Health Science) or Additional Mathematics, and two other approved subjects which may include any not counted above. Alternatively, the student must hold passes in an approved G.C.E. or CXC examination in five approved subjects obtained on one and the same occasion, including English Language and Elementary Mathematics.

In sum, access of Barbadians to the UWI and its Cave Hill Campus is strongly influenced by the type of secondary school attended, and the type of secondary school attended is in turn strongly influenced by the performance of the pupil in the highly selective CEE, even though policy-measures have been implemented over time to rid the system of some of its more traditionally blatant aristocratic features.

CHAPTER 3

ACTUAL SITUATION OF HIGHER EDUCATION: I

This chapter deals with the actual situation in higher education in Barbados. It focuses on student enrolment, educational personnel, student services, material and physical resources, and educational financing. The matters of innovation in higher education, inter-institutional co-operation, and scientific research will be dealt with in Chapter 4. Let us begin, then, with enrolment.

ENROLMENT

Triennial Trends

The latest published official statistics on enrolment at the UWI are for the academic year 1985-86. In 1985-86, the University had a total of 10,718 registered students, of whom 1,902 (17.7%) were at the Cave Hill Campus. As can be seen in Table 3.0, enrolment at the Cave Hill Campus

**TABLE 3.0 GROWTH OF TOTAL STUDENT REGISTRATION
THE UWI, BY CAMPUS, FOR EACH TRIENNIUM
1963-64 TO 1978-79 AND ANNUALLY 1979-80 TO 1985-86**

ACADEMIC YEAR	WHOLE UNIVERSITY	MONA	ST. AUGUSTINE	CAVE HILL	
				TOTAL	TRIENNIAL GROWTH
1963-64	2,187	1,486	583	118	—
1966-67	3,259	2,073	964	222	104
1969-70	4,627	2,687	1,511	429	207
1972-73	6,326	3,516	1,967	843	414
1975-76	7,257	3,963	2,229	1,065	222
1978-79	8,519	4,496	2,661	1,362	297
1979-80	8,986	4,574	2,915	1,497	—
1980-81	9,058	4,548	2,923	1,587	—
1981-82	9,543	4,798	3,144	1,601	239
1982-83	9,573	4,884	3,125	1,564	—
1983-84	10,026	5,188	3,197	1,641	—
1984-85	10,572	5,394	3,428	1,790	189
1985-86	10,718	5,088	3,728	1,902	—

Note re Registration in the Hotel Management Programme in the Bahamas: Figures for 1978-79 (12); 1979-80 (25); 1980-81 (31); 1982-83 (29); 1983-84 (31); 1984-85 (28) and 1985-86 (22) are included in the Mona totals.

Source: UWI Development and Planning Unit, 1987.

is almost twice as high as it was a decade ago, but growth in student enrolment in the last triennium (1981-82 to 1984-85) was lower than in any triennium except the first (1963-64 to 1966-67). It is important to mention what has been happening triennially in enrolment, since the University is funded on a triennial basis. It is too early, of course, to assert that a trend of declining enrolment has set in at the Cave Hill Campus. However, it is certain that the Cave Hill authorities and the Barbados Government have been watching closely the figures on enrolment at the Campus in recent years. A decline in enrolment is usually accompanied by cutbacks in government spending on the educational sector.

Enrolment by Faculty

Examination of the distribution of student enrolment between the various Faculties at Cave Hill reveals several interesting things. Observe, in Table 3.1 (appendix), that over the 12-year period 1973-74 to 1985-86 most of the students were enrolled in the Faculty of Arts and General Studies. Observe, too, that by the triennium ending 1985-86 Social Sciences had taken over from Arts and General Studies as the most popular area of student enrolment. In 1985-86, Social Sciences accounted for 31% of the student enrolment and Arts and General Studies for 24%.

Apart from Social Sciences, the only Faculty that experienced growth in student enrolment in each triennium since 1973-74 was Natural Sciences. Natural Sciences accounted for 22% of the enrolment in 1985-86.

The establishment of a Faculty of Law at the Cave Hill Campus in 1970 was cause for celebration by many Barbadians and West Indians. Recall from our historical analysis in Chapter I that traditionally law and medicine were the two most prestigious fields of study and that only a privileged few had access to those two fields of study. When the doors of the Faculty of Law were opened in 1970, they were evidently opened fairly wide. The 269 students enrolled in the Faculty of Law in 1973-74 represented 29% of that year's enrolment. However, it seems that the Faculty of Law's doors are not as wide open as they were in the past. Enrolment in the Faculty of Law has been kept at about the 290-300 students mark, and represented 16% of the total enrolment in 1985-86. That proportion was roughly half of what it had been in 1973-74.

A Faculty of Medicine was opened at Cave Hill 1985-86 in the wake of the restructuring of the University in October 1984. Prior to 1985-86, Medicine was taught at the Mona Campus only. Whether by accident or by design, the Faculty of Medicine is the one with the second lowest enrolment at the Cave Hill Campus. The 46 students enrolled in the Faculty of Medicine in 1985-86 represented two per cent of the total enrolment.

**TABLE 3.1 STUDENT ENROLMENT AT THE
CAVE HILL CAMPUS BY FACULTY AND
TRIENNium 1973-74 TO 1985-86**

FACULTY	1973-74	1976-77	1979-80	1982-83	1985-86
Arts and					
General Studies	438	422	493	419	456
Social Sciences	—	104	322	459	594
Law	269	290	289	298	310
Education	39	39	68	62	76
Natural Sciences	192	285	325	334	420
Medical Sciences	—	—	—	—	46(1)
TOTAL	938	1,140	1,497	1,572	1,902

(1) The Faculty of Medical Sciences was opened in 1985-86.

*Source: UWI Vice-Chancellor's Report to Council, 1983
UWI Development and Planning Unit, 1987.*

The Faculty of Education (formerly the School of Education) is the Faculty with the lowest enrolment, if one excludes enrolment in the in-service Diploma Education and Certificate in Educational Management and Administration programmes. This has less to do with the low prestige of the B.Ed. degree when compared with an LL.B. or medical degree, than with the high economic cost of the B.Ed. degree. The 76 students enrolled in the Faculty of Education in 1985-86 represented four per cent of the enrolment. The picture which presents itself, then, as far as the current distribution of enrolment between the Faculties is concerned, is one in which Social Sciences is in the lead, followed by Arts and General Studies, Natural Sciences, Law, Education, and Medicine in that order.

Sex and Type of Programme

The available data on new admissions to the entire University indicate that the University has been admitting more female than male students. If we examine the new Barbadian students admitted to the University in 1985-86, we find that such students were 405 in number (Table 3.2). Females accounted for 57% and males for 43%. However, there is more to the matter of enrolment by sex than simply counting the number of females gaining admission and comparing that total with the number of males gaining admission. One also needs to examine admission of the sexes to the different programmes.

Among the new Barbadian students admitted to the University in 1985-86, both males and females had a marked tendency to enter First Degree programmes. This was true of 86% of the males and 81% of the females. When we examine admission to the First Degree programmes, by sex, we find that there were marked differences between the sexes. Most of the females (43%) entered Arts and General Studies, while most of the males (45%) entered Natural Sciences. Social Sciences was the next on the list, for both males (21%) and females (27%). Law was evenly shared by the sexes, but Medicine and Engineering were patently male-dominated. Six of the eight new students admitted to Medicine were males, and not one of the four new students admitted to Engineering was a female.

**TABLE 3.2 NEW UNIVERSITY ADMISSIONS
TO FIRST DEGREES, CERTIFICATES AND DIPLOMAS,
BY FACULTY AND SEX BARBADIANS ONLY, 1985-86**

TYPE OF PROGRAMME	MALE	FEMALE	TOTAL
FIRST DEGREES			
Arts and			
General Studies	29	79	108
Social Sciences	32	51	83
Law	10	9	19
Natural Sciences	68	45	113
Medicine	6	2	8
Agriculture	1	—	1
Engineering	4	—	4
Total First Degrees	150	186	336
Certificates/Diplomas			
Cert. Social Work	1	1	2
Cert. Ed. Admin.	10	20	30
Dip. Mass Comm.	1	—	1
Dip. Public Admin.	7	9	16
Dip. Educ.	5	15	20
Total Certificates/Diplomas	24	45	69
GRAN TOTAL	174	231	405

Source: UWI Development and Planning Unit, 1987.

The indications are, then, that with the exception of social science, the world of science is still essentially a "man's world" at the Cave Hill Campus. Since the University is a regional institution, it is necessary to round out our examination of enrolment by looking at enrolment by territory, taking into account the distribution of the population among the territories.

Enrolment by Territory

Data on enrolment in First Degree, Certificate and Diploma programmes, by territory, are provided in Table 3.3 for the entire University in 1985-86. Observe that there were 1,195 Barbadians enrolled in First Degree programmes and another 100 in Certificate and Diploma programmes, with the total of 1,295 Barbadians representing 13.8% of the overall total of 9,411 students. If we stay with nationals of the Campus Countries, it should be noted that Jamaicans accounted for 44.1% of the overall enrolment, and Trinidadians and Tobagonians for 35.9%. The remaining 6.3% of the enrolment was divided between the NCCs.

**TABLE 3.3. ENROLMENT IN FIRST DEGREE
AND CERTIFICATE AND DIPLOMA PROGRAMMES
AT THE UWI BY TERRITORY, 1985-86**

TERRITORY	Enrolment		TOTAL
	First Degrees	Certs./Dips.	
Anguilla	7	1	8
Antigua	37	9	46
Bahamas	58	3	61
Barbados	1,195	100	1,295
Belize	34	4	38
BVI	10	2	12
Cayman Islands	2	—	2
Dominica	30	10	40
Grenada	60	5	65
Jamaica	3,614	536	4,150
Montserrat	25	—	25
St. Kitts-Nevis	55	2	57
St. Lucia	91	12	103
St. Vincent	40	5	45
Trinidad and Tobago	2,912	465	3,377
Turks Islands	1	1	2
Guyana	50	4	54
Other Territories	20	11	31
TOTAL	8,241	1,170	9,411

Source: UWI Development and Planning Unit, 1987.

When the distribution of the population is taken into account, it is clear that Barbadians are over-represented among the students enrolled at the University (appendix, Table 3.4). Barbados' share of the region's population is 5.4%, but Barbadians account for about 14.6% of the students reading for First Degree. Trinidad and Tobago is also over-represented, though not to the extent of Barbados. Jamaica is slightly under-represented, accounting as it does for 49.5% of the population and for about 44.2% the enrolment in First Degree programmes. The NCCs are heavily under-represented among the students reading for First Degrees. They account for 21.2% of the population, but only for about 5.5% of the enrolment.

**TABLE 3.4 COMPARISON OF PROPORTIONS
OF POPULATIONS WITH FIRST DEGREE
ENROLMENTS, BY TERRITORY, 1985-86**

Territory	ENROLMENT	
	% Population	% First Degree Enrol.
Jamaica	49.5	44.2
Trinidad and Tobago	23.9	35.7
Barbados	5.4	14.6
Non Campus Countries	21.2	5.5

Source: UWI Development and Planning Unit, 1987.

The very small share of the NCCs in the enrolment raises questions about the relationship between the NCCs and the University on the one hand, and the NCCs and the governments of the Campus Countries on the other. There can be no doubt that especially since the restructuring of the University in October, 1984, the governments of the Campus Countries have seen their responsibility for funding of the University as something which should take the national interest first and foremost into account. Nor can there be any doubt that some of the NCCs have allowed themselves to fall into arrears as far as the honouring of their funding of the University is concerned. In any event, it is clear that Barbados has more than adequate representation among the students enrolled at the University; and this is something which needs to be taken into account when one is assessing the effectiveness of higher education in Barbados. We turn now to educational personnel.

EDUCATION PERSONNEL

Since enrolment at the Cave Hill Campus is small by international standards, it should not be surprising to find that the Campus has relatively small senior administrative and full-time academic staff. At November 1, 1986, such staff at the Cave Hill Campus totalled 130 persons. Let us examine this total of 130 staff members in relation to the budgeted staff, and say a few things about the characteristics of the full-time academic staff.

Actual Vs Budgeted Staff

The 130 staff members comprised 23 non-Faculty members and 107 Faculty members, distributed between the various units as shown in Table 3.5. The non-Faculty units had a shortfall of only one staff member. That shortfall was in Administration, where there were 9 persons on staff as compared with the budgeted total of 10.

The Faculties had an overall shortfall of 20 staff members, since there were 107 persons on staff as compared with the budgeted total of 127. All of the Faculties had a shortfall in staff, but Social Sciences and Law were the ones with the largest shortfalls, 7 persons and 5 persons respectively. In the Faculty of Social Sciences, the Department which was hardest hit was the Institute of Social and Economic Research with its deficit of 3 staff members.

TABLE 3.5. DISTRIBUTION OF NON-FACULTY MEMBERS AND FACULTY MEMBERS AMONG THE UNITS OF THE CAVE HILL CAMPUS NOVEMBER 1, 1986

UNIT	NO.ON STAFF	BUDGETED STAFF	SHORTFALL
NON-FACULTY			
Administration	9	10	1
Library	7	7	—
Computing Centre	2	2	—
Learning Resource Centre	1	1	—
Office of University Services	2	2	—
Sub-Total	23	24	1
FACULTY			
Arts and General Studies	21	23	2
Education	11	13	2
Law	18	23	5
Natural Sciences	23	26	3
Social Sciences	21	28	7
Medical Sciences	13	14	1
Sub-Total	107	127	20
TOTAL	130	151	21

Source: UWI Development and Planning Unit, 1987.

The shortfall in staff did not occur by accident. It resulted from a conscious University decision to freeze posts in order to live within its budget, and to use part-time staff as necessary to fill teaching gaps. As has been pointed out by the Marshall Committee, that course of action was a prudent one for the Cave Hill Campus to follow, but it raised issues about the viability of some Faculties, and certainly cut into the resources available for graduate and undergraduate programmes as well as for research of critical importance to national development (Marshall et al, op. cit., p. 22).

Country or Region of Origin

Barbadians constituted a majority (51%) of the 130 persons on staff at November 1, 1986, and West Indians 81%. There can be no doubt that the staff of the University as a whole is made up heavily of West Indians. At November 1, 1986, the 374 members of staff at the Mona Campus included 223 Jamaicans and 297 West Indians, while the 305 members of staff

**TABLE 3.6. STAFFING AT THE CAVE HILL CAMPUS
BY UNIT AND SELECTED COUNTRY OR REGION OF ORIGIN
NOVEMBER 1, 1986**

	Total Staff	Country or Region of Origin			
		Barbados	West Indies	Great Bri- tain and Ireland	Other
Administration	9	9	9	—	—
Library	7	3	6	1	—
Computing Centre	2	2	2	—	—
Learning resources centre	1	—	1	—	—
Extra mural studies	2	1	2	—	—
Office of Univ. services	2	1	2	—	—
Sub-Total	23	16	22	1	—
FACULTIES					
Arts and Gen. Studies	21	6	17	2	2
Education	11	5	1	1	—
Law	18	7	13	1	4
Medical Sciences	13	7	10	1	2
Natural Sciences	23	12	16	6	1
Social Sciences	21	13	18	2	1
Sub-Total (Faculties)	107	50	84	13	10
TOTAL	130	66	106	14	10
PERCENTAGES ON STAFF					
	100	51	81	11	08

Source: UWI Development and Planning Unit, 1987.

of the St. Augustine Campus included 182 nationals of Trinidad and Tobago and 242 West Indians (see UWI Development and Planning Unit, 1987, pp. 24-30).

At the Cave Hill Campus, the non-West Indian staff members at November 1, 1986, came mainly from Great Britain and Ireland. To be precise, 14 staff members (11% of the total) were from Great Britain and Ireland. What was interesting about those particular members of staff was that six of them were in the Faculty of Natural Sciences. The question which arises here is whether there is a shortage of qualified natural scientists among Barbadians and West Indians. The 10 staff members who were neither from the West Indies nor from Great Britain and Ireland came from Canada, the USA, India, Africa, Australia and New Zealand.

Qualifications and Rank

At this point, let us concentrate on the full-time academic staff and say something about their qualifications and academic rank. Relatively few of the 117 full-time members of academic staff had only a Bachelor's Degree. There were 19 persons (16% of the total) in that category. There were 38 persons with degrees at the Masters level, 50 Ph.D's. and 10 persons with special qualifications in Medicine (Table 3.7). Although the full-time academic staff is not poorly qualified, there is some room for improvement since only about half of these staff members have Ph.Ds. or special qualifications. The Campus authorities have recognized this and have put in place an active staff development programme.

TABLE 3.7. DISTRIBUTION OF FULL TIME ACADEMIC STAFF AT CAVE HILL CAMPUS, BY FACULTY AND ACADEMIC QUALIFICATIONS NOVEMBER, 1986

Faculty	QUALIFICATIONS				TOTAL Full-Time Academic Staff
	Bachelors	Masters	Ph. D.	Special Quali- fications	
Arts and Gen. Studies	1	9	11	—	21
Education	1	5	5	—	11
Law	7	7	4	—	18
Medicine (clinical)	9	1	3	10	13
Natural Sciences	1	7	15	—	23
Social Sciences	1	9	12	—	21
TOTAL	19	38	50	10	117

Source: UWI Development and Planning Unit, 1987.

The 117 full-time members of academic staff were made up of two Assistant Lecturers, 60 Lecturers, 47 Senior Lecturers and 8 Professors. When one examines the distribution of Senior Lecturers and Professors among the Faculties the findings are very interesting. Firstly, Social Sciences, the Faculty with the most Senior Lecturers, had no Professor. One wonders why. Secondly, although the Faculty of Education is small in terms of student enrolment, it had five Senior Lecturers (but no Professors) among its 11 full-time members of academic staff. Thirdly, half of the full-time academic staff of the Faculty of Medicine was made up of Senior Lecturers and Professors even though, as we have seen, the Faculty of Medicine had an enrolment of less than 50 students in 1985-86. Fourthly, the Faculty of Natural Sciences was the one with the most Professors (three to be exact), even though it occupied the fourth position in terms of number of Senior Lecturers. We turn now to student services.

TABLE 3.8. DISTRIBUTION OF FULL-TIME ACADEMIC STAFF BY RANK AMONG THE FACULTIES, NOVEMBER 1, 1986

Faculty	RANKS OF ACADEMIC STAFF				Total
	Professors	Senior Lecturers	Lecturers	Assistant Lecturers	
Arts and Gen. Studies	1	8	12	—	21
Education	—	5	6	—	11
Law	2	7	8	1	18
Medical Sciences (clinical)	2	9	12	—	23
Natural Sciences	3	8	11	1	23
Social Sciences	—	10	11	—	21
TOTAL	8	47	60	2	117

Source: UWI Development and Planning Unit, 1987.

STUDENT SERVICES

The Cave Hill Campus has a wide range of student services. These services include: accommodation, loans and scholarships, prizes, health and medical facilities, legal representation, counselling, a bookshop, a mail service, and a cafeteria. We will focus on accommodation, loans and scholarships, health and medical facilities, and we will deal briefly with the student movement.

Accommodation

Student accommodation at the Cave Hill Campus consists of a single hall of residence, Sherlock Hall has accommodation for 120 students, 56 male and 64 female. During vacation periods, students who wish to remain in residence may do so only with the permission of the Warden, who also serves as Student Counsellor. Students are required to pay in advance for their room.

There are at least three problems with the accommodation at Sherlock Hall. Firstly, the demand for places far exceeds the supply. Most of the 500-odd overseas students at the Cave Hill Campus have no choice but to lease houses and apartments or to stay with families. Acceptable accommodation within a reasonable distance from Campus is scarce (Vice-Chancellor's Report to Council, 1983, p. 42). However, the Student Affairs Section of the Campus tries to find off-campus accommodation for new overseas students who have not been allotted places at Sherlock Hall.

The second problem is that accommodation in Barbados is expensive, both on and off campus. The estimated annual residence fees at Sherlock Hall are as follows: BDS\$*2,170 in Terms, BDS\$490 during the Christmas and Easter vacation periods, and BDS\$140 during the 9-week Summer vacation (see *The Student's Handbook*, 1987, p. 35). The estimated monthly rates for off-campus accommodation are, in local currency: \$500-\$700 for a twobedroom house; \$600-\$850 for a three-bedroom house; \$500-600 for a two-bedroom furnished apartment; \$600-700\$ for a three-bedroom furnished apartment; \$450-\$600 for board and lodging with families; and \$200-\$300 for lodging if the student decides to share furnished rooms with other students (*ibid.*, p.41).

The third problem is that with off-campus accommodation as expensive as it is, a regime of rent-increases has been instituted at Sherlock Hall to make that Hall pay its way. In his Report to Council in 1983, the University's Vice-Chancellor acknowledged that Sherlock Hall "continues to suffer from deferred maintenance and equipment replacement problems", and pointed out that the rent increase at Sherlock Hall in 1982 was designed to help make that hall self-supporting since the UGC had taken a decision not to fund any Hall deficits with effect from October, 1982 (Vice-Chancellor's Report, *loc. cit.*).

Loans and Scholarships

The Student Welfare Committee of the Cave Hill Campus has a small student loan scheme with terms of repayment satisfactory to the Campus'

* One Barbados dollar is U.S.\$0.50.

Finance Officer. Application is made through the Assistant registrar, Student Affairs. From time to time, Student Affairs invites applications for Campus scholarships provided by local firms, service clubs or interested persons in the community. It also invites applications for undergraduate awards, bursaries and other forms of assistance available throughout the University. Freshmen entering the Campus without the aid of scholarships may apply to sit the University Scholarship Examinations which are held in February/March. Most major University, Government and CIDA (Canadian International Development Agency) Scholarships are awarded on the basis of this examination.

The Barbados Government has been concerned about the amount of money which it has been spending on scholarships tenable at the University and elsewhere. It actually spent BDS\$1.3 million on scholarships in 1981-82, but the *Barbados Estimates* for 1983-84 contained an allocation of only BDS\$1.0 million for scholarships. In 1984-85 the actual expenditure on scholarships was \$1.4 million, marginally higher than in 1981-82. However, the Approved Estimates for 1985-86 showed a figure of \$1.8 million for scholarships, and the allocation for scholarships in the *Barbados Estimates* for 1986-87 was \$2.3 million.

The Barbados Government has been using a Student Revolving Loan Fund (SRLF) to reduce its expenditure on scholarships, and to tie its financing of studies to specific professional and technical areas which it considers beneficial to national development.

The SRLF programme has been designed principally to help:

- a) expand post-secondary and higher education opportunities to qualified applicants;
- b) provide new resources for the financing of post-secondary and higher education;
- c) transfer all or part of the cost of such education from the family or the Government to the actual beneficiary of the SRLF;
- d) provide Barbados with trained professionals in priority areas;
- e) provide the Government with a mechanism which might permit it gradually to reduce the number of scholarships awarded annually; and
- f) bring about an increase in national income levels by adding professionally trained Barbadian personnel to the economy. (Ministry of Education 1978-82 Report, p. 60).

The SRLF has been managed by the Barbados Ministry of Education through a Student Revolving Loan Fund Management Committee. This Committee has about five members, and is chaired by the Permanent Secretary in the Ministry of Education. The priority areas and loans approved under the SRLF up to 1981-82 are shown in Table 3.9.

**TABLE 3.9. PRIORITY AREAS AND LOANS APPROVED
UNDER THE STUDENT REVOLVING LOAN FUND
UP TO 1981-82**

Priority	Total Loans Approved	Total Funds Approved BDS\$
Engineering	20	256,763
Technology	28	946,487
Administration	75	957,004
Teacher training	27	474,472
Agriculture	6	64,403
Natural Sciences	28	232,684
Architecture	6	148,000
Land Surveying	1	20,000
Medicine	16	240,335
Dentistry	2	47,000
TOTAL	209	2,966,743

Source: Ministry of Education 1978-82 Report, p. 60.

Most of the funds for the SRLF have come from the Inter-American Development Bank. The Barbados Government intends to keep the SRLF going, but to modify its operation, as is explicitly stated in the current five-year Development Plan:

The Government has negotiated with the Inter-American Development Bank a second loan agreement to replenish and expand the scope of the Student Revolving Loan Fund. In addition to the provision for post-graduate and undergraduate courses, the fund will now permit loans to qualified Barbadians pursuing post-secondary education and training especially in technical/vocational areas and middle management in national institutions such as the Barbados Community College, the Samuel Jackman Prescod Polytechnic and Erdiston [Teacher Training] College. The new arrangement will include a loan/grant principle which should make the scheme more attractive to students and should encourage high scholastic achievement.

(Barbados Development Plan, 1983-88, p. 144).

Health and Medical Facilities

Students at the Cave Hill Campus are provided with clinical services through the Students Health Service. The clinical services are provided by a Senior Nursing Sister, a part-time Nursing Sister, and a panel of visiting doctors. The part-time Nurse was made available from the academic year 1976-77, and up to 1980 she covered the examination period only (approximately five weeks, May to June). Since 1980, the services of the part-time Nurse have been provided during the academic year only.

There are about 10 persons on the panel of visiting doctors. They include a medical specialist, a surgeon, a psychiatrist and a dental surgeon. Four of the doctors service four medical clinics weekly. There is a once-monthly psychiatric and diagnostic clinic. The Clinic hours are 8.30 a.m. - 4.30 p.m.

All other specialist care is organized through the public clinics at the Queen Elizabeth Hospital, a modern University teaching hospital, and is free. Ophthalmic care is offered partly free, and is organized by a leading firm of Opticians in Bridgetown. The Cave Hill authorities have made it very clear to the students that while the University is prepared to provide them with medical assistance, it is not prepared to accept responsibility for the payment of unauthorized medical bills:

The University does not undertake to provide or meet the cost of medical services including diagnostic tests, which cannot be obtained from the Health Service in conjunction with the Queen Elizabeth Hospital. Where in extraordinary circumstances these are necessary, they must be met by the student, his parents or guardians or donors. Where circumstances warrant, an emergency loan may be available from the Student Emergency Loan fund.

(Students Handbook, op. cit., p. 43).

Although the efforts of the Cave Hill Campus at providing its students with health and medical facilities are to be commended, there is room for improvement in the Students Health Service. The Clinic facilities have been in use since the inception of the Clinic in 1972, and have become inadequate because of the rapidly increasing number of students using the Health Service (Vice-Chancellor's Report, op. cit., p. 41).

The Guild of Undergraduates

The Guild of Undergraduates at the Cave Hill Campus has been seeking to increase the level of communication between its Council and the general student community. Through its representation on a number of decision-making bodies at the Campus, the Guild Council has been able to secure the cooperation of the Cave Hill Administration in remedying a

number of problems. It has succeeded in bringing about improvements in the conditions of out-door lighting on the Campus for security purposes. It has been able to secure financial assistance for the improvement of the facilities and equipment available to students in a variety of areas. These developments have included: the resurfacing of the playing courts, the renovation of the cricket pavillion, the purchase of vital band equipment for the students' campus band, and the acquisition of the services of a number of professional coaches to assist in the preparation for the Inter-Campus Games (Ibid., p. 43).

The Guild Council has been carrying out an educational programme on world affairs. In 1983, for instance, it organized a symposium on "Development in the Third World: Prospect for the future". The speakers at the Symposium included not only members of the University's academic staff, but also some of the leading political figures in the region.

The Guild has also been active in the area of publications. Its *Newsletter* is distributed free of cost, and provides information on the activities of the Council, Clubs and Societies. It publishes the *Law Society Journal*, the *Arts and General Studies Magazine*, the *Social Sciences Journal*, the *Sherlock Hall Magazine* entitled "Interlock", and a miscellany of things from clubs such as Creative Writers. It recently commenced publication of an official Year Book.

MATERIAL AND PHYSICAL RESOURCES

Let us turn to the material and physical resources at the Cave Hill campus. Two matters will be dealt with in this respect: libraries and the Learning Resources Centre, and the Computer Centre.

Libraries and the Learning Resources Centre

There are two major libraries at the Cave Hill Campus, the Main Library and the Law Library. The Main Library is open to all students and members of staff registered at the Campus. It has over 94,000 volumes of books, over 12,000 pamphlets and over 2,000 periodicals. It is a depository for the United Nations English Language documents and selected publications by the Organization of American States. It has other separate collections such as the West Indies collection (closed access) and Government Serials (which are for reference only). Undergraduates are allowed to borrow up to eight books at a time from the Main Library, for a period of normally up to three weeks. The Main Library has access to DIALOG, a computerized information retrieval system with 180 databases containing in excess of 80 million records. The Main Library is open from 9.00 a.m. to

10.00 p.m. from Monday to Friday, and from 9.00 a.m. to 5.00 p.m. on Saturdays. It is also open at specified times during vacations.

The Main Library Administration appreciates that the Main Library has been making a major contribution to the development of the Campus, but it has expressed its concern over the reduced purchasing power of the book vote:

While we are encouraged by the new opportunities we must also register concern at the rapidly diminishing power of our book vote.

With the improved efficiency in the technical services department promised by the judicious use of automation we will need to ensure that our book budgets are sufficient to match the capacity of the processing sections and, more importantly, the demands of the staff and students for access to the significant new publications in their fields.

(*ibid.*, p. 38).

The Law Library is located within the building housing the Faculty of Law. It has an extensive collection of West Indian and other Commonwealth legal materials, and is considered to be the premier legal library in the region. The collection has a research capability and is in excess of 60,000 volumes. This number includes approximately 571 periodical titles, 425 law report titles, statutes, digests, citators, legal encyclopaedias and monographs.

A substantial part of the Law Library's collection was acquired from the library of the Attorney General of the defunct West Indies Federation. Other significant benefactors include the British Overseas Development Division, the U.S. Government, York University Library, the Canadian Bar Association, and most of the Commonwealth Caribbean Governments. The collection's unique feature is the West Indian section, which includes approximately 8,175 unreported West Indian cases, theses and research papers produced by staff and students.

The Law Library aims at providing a legal reference service for practitioners and researchers in general, in addition to supporting the teaching programmes at the Faculty of Law. A computer-based programme, LEXIS (Legal Information Data Base) has recently been introduced in the Law Library and should be fully operational during the current academic year (1987-88). The Law Library's hours are: weekdays 9.00 a.m. to 10.00, p.m., Saturdays 9.00 a.m. to 5.00 p.m., and Sundays 9.00 a.m. to 10.00 p.m. During the Christmas and Summer vacations, the Law Library is open from 9.00 a.m. to 4.30 p.m.

Before we close our discussion of the library situation, brief mention should be made of the Learning Resource Centre (LRC). Strictly speaking

the LRC is not a library. It is a unit which supports the academic work of the Campus, through the following activities: a VTR studio with a closed circuit link, a multi-media library, and a media production unit which includes a small off-set press. However, it is necessary to draw attention to the LRC, and especially to the LRC's multi-media library, since library materials are not restricted to book materials. In 1985-86, the LRC's library collection consisted of 250 audio cassettes/tapes, 32 16-millimetre films, 33 filmstrips, 80 kits, and 70 video cassettes (*Departmental Reports* 1985-86, p. 179).

In addition to a printery, the LRC's production unit has a darkroom, graphics artists facilities, and recording devices for both audio and visual materials. The LRC utilizes considerable assistance from students in the areas of collating, reprographic camera work, plate burning and film processing. It also produces graduation materials, certificates, and programmes for the Vice-Chancellor's thanksgiving service as well as for Commencement Services.

The Computer Centre

The Computer Centre has an ICL 1910A and other material resources. These other material resources consist of eight Rainbows in the MICROLAB and the Rainbow Plus in the Centre itself. Since September, 1985, the Computer Centre has had a DEC VAX 750. However, because of a) the lack of adequate space for setting up the terminals and b) the limited software, the new computer has been used mainly for the training of Computer Centre Staff. Members of staff of the Departments of Mathematics and Physics have also been making use of the VAX computer, especially for research purposes.

The Computer Centre at Cave Hill has been sharing software with the Department of Engineering at the St. Augustine Campus since these two collaborators have similar equipment. It is expected that the two Campuses will cooperate closely in all aspects of the acquisition and maintenance of both hardware and software.

FINANCING OF HIGHER EDUCATION

It is time now to deal with the final and most important matter to be addressed in this chapter. The matter in question is the financing of higher education. Enrolment figures, staffing, student services, and material and physical resources all boil down to a question of money. We have already had a glimpse of how higher education is being financed in Barbados, especially when we discussed the SRLF. However, a systematic analysis of the matter of financing of higher education is very much in order. We will

begin by providing information on the cost of education at the Cave Hill Campus, and then focus more directly on the issue of financing.

COST OF EDUCATION AT CAVE HILL

The student attending the Cave Hill Campus incurs a variety of financial expenses. The Barbadian student incurs expenses related to caution fees, nominal tuition and examination fees, students' guild fees, the economic cost of his programme and books and incidentals. The overseas student incurs all of these expenses, plus those connected with accommodation and meals. An estimate of annual expenses for undergraduate degree programmes at the Cave Hill Campus is provided in Table 3.10. Our main concern is with the economic cost, which is a) by far the largest of all the costs, and b) met by the Barbados Government for all of its nationals except those in the first year of a four-year degree programme.

The economic costs of programmes in the four Faculties listed in Table 3.10 range from BDS\$5,840 –\$15,360 per annum for students from the NCCs, and from BDS\$9,734– \$25,600 per annum for other students, including students from Guyana. In the case of nationals from contributing NCCs, the fees shown in the Table for economic costs represent the full Economic Cost discounted by 40%. The reference to the economic costs for students from contributing NCCs is of major importance since the restructuring of the University in 1984 resulted in part from the fact that some of the contributing NCC Governments had allowed themselves to fall into arrears with their contributions. The economic cost must be met by the non-Barbadian student himself unless the Government of his country or an acceptable donor agrees to meet it on his behalf. In any event, it is the Barbados Government which is responsible for the triennial funding of the Cave Hill Campus, and this point cannot be overstressed as we move directly into the question of financing.

The Old and New Funding Arrangements

Prior to October, 1984, each of the University's three Campuses channelled its triennial estimates to the University through its Planning and Estimates Committee. The Planning and Estimates Committee revised, amended and pruned the estimates before submitting them to the University Grants Committee (UGC) for funding. The UGC was made up of the Ministers of Finance of the 14 Contributing Countries. The UGC met after the estimates had been sanctioned by the Technical Advisory Committee (TAS). The TAS was made up of the Permanent Secretaries of the Ministries of Finance of the Contributing Countries.

**TABLE 3.10 ESTIMATES OF ANNUAL EXPENSES FOR UNDERGRADUATE
DEGREE PROGRAMMES AT CAVE HILL CAMPUS, 1987**

ALL FEES QUOTED IN BDS\$ AND ARE PAYABLE IN ADVANCE	ARTS/GEN.							
	(B. A.) SOC. SCIENCES		NATURAL SCIENCES		Prelim. Full-Time	EDUCA- TION B. Ed.	LAW LL. B.	
	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Full- Time	Full- Time	Part Time
	\$	\$	\$	\$	\$	\$	\$	\$
1. Caution Fee	80	80	80	80	80	80	80	80
2. Non-tuition and Exam.	145	70	190	90	190	335	145	70
3. Students' Guild	80	80	80	80	80	80	80	80
4. Non-Resident Hall Fee	15	—	15	—	15	15	15	—
5. Economic Cost:								
NCCs	8,760	5,840	12,120	8,080	9,696	15,360	10,200	6,800
Others (inc. Guyana)	14,600	9,734	20,200	13,467	16,160	25,600	17,000	11,334
6. Residence Fees:								
(Sherlock Hall)								
In-term (31 weeks)	2,170	2,170	2,170	2,170	2,170	2,170	2,170	2,170
Xmas and Easter	490	490	490	490	490	490	490	490
Summer vacation (9 wk.)	140	140	140	140	140	140	140	140
7. Meals	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600
8. Books and incidentals	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500

Source: *Students' Handbook*, op. cit., p. 35.

The UGC allocated the funds as a block grant. The University, in turn, decided how much money should go to each Campus. As with the preparation of the Estimates, the funds were provided under three headings: projections, consolidations, and expansion and new development. *Projections* signified the carrying on of present activities at existing levels. *Consolidations* referred to improvements to remedy existing inadequacies. *Expansion and new developments* consisted in activities and programmes that had not been tried before.

The funding arrangements described above caused the Campuses to have to resort to crisis management, as has been pointed out by the Marshall Committee in its recent review of the operations of the Cave Hill Campus:

Even prior to restructuring, the decisions of the UGC tended to be made perilously close to the end of one triennium and the beginning of the next. On occasions they were made after a triennium had begun. This imposed upon the University and its campuses the need to resort to crisis management and to alter carefully made plans at a very late stage to accommodate the level of funding provided for their operation.

(*Marshall et al., op. cit., p. 9*).

The restructuring of the University has caused the Campuses to become even more obsessed with crisis management. Here again is the Marshall Committee:

The situation appears to have worsened with restructuring and the establishment of the Campus Grants Committees (CGCs) in addition to the UGC itself. For the present triennium which began in October 1984, the Cave Hill CGC reached its decisions in March 1985; the Mona CGC later in the same month, the UGC in May 1985 on the level of funding for the Centre, and the St. Augustine CGC in April 1986. In June 1986 salary negotiations for the Staff at Cave Hill remain unresolved; the settlement, when it comes will date from October 1984. These are some of the external factors that inhibit adequate forward planning.

(*ibid., p. 9-10*).

The salary negotiations were completed earlier this year (1987), and have in fact dated back to 1984. It is not an exaggeration to say that the settlement was a generous one. However, there can be no doubt that the crisis management to which the Marshall Committee referred has become a fact of life at the Cave Hill Campus. Let us take the staff in the two inservice programmes in the Faculty of Education as a case in point.

The in-service programmes in question were funded 100% by the Barbados Government even before restructuring. Since the Cave Hill CGC

only reached in March, 1985, its decision to approve funding for the triennium commencing in October 1984, the staff in the in-service programme of the Faculty of Education stayed on the job without knowing whether their contracts which had expired would be renewed. The Principal of the Cave Hill Campus was placed in the position where he almost had to terminate the employment of the staff members in question.

The present triennium began in October, 1987, and the Estimates have not been approved at the time of writing. If and when such approval is granted, the policy-position which was adopted during the 1981-84 triennium will probably be adopted again because of the economic down-turn which Barbados has been experiencing since 1981. In the 1981-84 triennium, funds were provided to meet the projection estimates only, thereby maintaining the status quo.

Government Expenditure

The money which the Barbados Government spends on higher education goes towards maintenance of property at the Cave Hill Campus, "grants to public institutions", and scholarships to individuals. "Grants to public institutions" is a category which covers the following four areas at the University: payment of tuition fees and the economic costs for students; Government's contribution towards the University Teaching Hospital (the Queen Elizabeth Hospital); seismic research; and the Council of Legal Education.

Expenditure on the maintenance of property has been modest when compared with the size of the grant to public institutions. This is shown in Table 3.11. Note that there was no provision for expenditure on maintenance of property in the fiscal years 1985-86 and 1986-87. Also note that the grant jumped from between BDS\$9-10 million just prior to restructuring to BDS\$16.4 million in the year when restructuring took effect, and to an estimated \$19.3 million in 1986-87.

It would seem, then, that the rapid expansion in public expenditure on education which Barbados experienced in its first decade of political independence has caused higher education in Barbados to become something of a "white elephant" as far as the Government itself is concerned. The national debt has been rising sharply (see Appendix 4), although that rise cannot be attributed solely to educational spending. Development projects in the area of higher education have not been enjoying the highest priority in the eyes of the development planners, as can be seen from the data on capital expenditure in Appendix 5. The Barbados Government appears to have its hands full meeting the costs of higher education.

**TABLE 3.11. EXPENDITURE BY THE GOVERNMENT OF BARBADOS
ON THE UWI, 1981-82, 1982-83, AND 1984-85 TO 1986-87**

CLASSIFICATION	Actual Ex- penditure 1981-82	Approved Es- timates 1982-83	Actual Ex- penditure 1984-85	Approved Es- timates 1985-86	Estimates 1986-87
Maintenance of Property	10,000	15,000	14,199	0	0
Grants to Pu- blic institutions	9,737,261	8,985,000	16,375,000	16,000,000	19,264,187
TOTAL	9,747,261	9,000,000	16,389,199	16,000,000	19,264,187

Source: Barbados Estimates 1983-84. Barbados Estimates 1986-87.

CHAPTER 4

ACTUAL SITUATION OF HIGHER EDUCATION: II

In this chapter, we will complete our examination of the actual situation in higher education in Barbados by dealing with the matters of scientific research, relevant innovations and inter-institutional co-operation. A special effort is made to examine these three matters at one and the same time, whenever possible. Because of this, we have decided to deal in detail with a few carefully selected cases, rather than to provide a lengthy shopping list for each of the three areas. We will begin by focussing on co-operation at the national level, and specifically on co-operation between the Cave Hill Campus and the Barbados Community College. Next, we will switch to the question of the role of higher education in scientific research. After this, we will examine the link between research, innovation and co-operation. Finally, we will examine the link between research and teaching programmes.

CO-OPERATION BETWEEN THE CAVE HILL CAMPUS AND THE BARBADOS COMMUNITY COLLEGE

The Barbados Government has made it clear that it expects the Cave Hill Campus to collaborate closely with the other major local institutions involved in education and training at the post-secondary level. It is explicitly stated in the current Development Plan that:

Efforts will be made to adapt the Campus to respond more effectively to national development needs and the University will be encouraged to promote complementarity with BIMAP, BCC, Erdiston College, and Student Revolving Loan Fund in particular.

(1983-88 Development Plan, op. cit., (p. 144).

We will exclude Barbados Institute of Management and Productivity (BIMAP) and Erdiston College from the analysis since these two institutions are not involved in degree programmes. We will include the Barbados Community College (BCC) since that institution recently launched an Associate Degree programme, in October 1987, to be precise.

The BCC was established by the Barbados Government in January, 1969, "to improve the facilities available to the community for training in a wide range of skills at technician, middle management and pre-university levels" (Barbados Development Plan 1973-77, p. 10-12). It has grown into a sizeable organization with eight Divisions and a student enrolment which

is roughly equal in size to that at the Cave Hill Campus. The eight Divisions of the BCC are: Liberal Arts, Science, Commerce, Fine Arts, Technology, Health Sciences, Community Services and Hospitality Services. In 1985-86, the BCC had some 1,750 students on its roll (Ministry of Education, 1986, Appendix B).

In the light of rising educational costs, the Barbados Government has taken the position that selected programmes currently offered at the Cave Hill Campus can be offered more cheaply and just as effectively at the BCC:

The Barbados Community College will, during the current plan period, play an expanded role in providing middle level and semi-professional training and for pre-matriculation programmes. The Government can no longer afford to support such programmes at the Cave Hill Campus. The Tercentenary School of Nursing will be integrated into the Health Science Division and the Hospitality Division will be re-organized to provide training more appropriate for the requirements of the tourist industry.

(1983-88 Development Plan loc. cit.).

Without getting into the matter of inter-institutional co-operation at the international level at this point, it may be noted that in the same Development Plan it was stated that the BCC would be encouraged to strengthen its co-operation with St. Clair College of Applied Arts and Technology in Windsor, Ontario, and Pennsylvania State University in the U.S.A.

To date, the particular programme which has most engaged the attention of the authorities at Cave Hill, the BCC, and the Ministry of Education with regard to co-operation between the Campus and the BCC has been the N1 Programme offered by the Faculty of Natural Sciences of the Cave Hill Campus. The BCC's Division of Technology and the Cave Hill Campus' Faculty of Natural Sciences held a series of joint discussions, commencing in June 1981, on the matter of transferring the N1 Programme to the BCC. The discussions revealed that it was feasible to do the N1 Programme at the BCC to the mutual advantage of both the BCC and the Cave Hill Campus. As a result, the BCC took the decision to phase out the teaching of Botany and zoology as separate "A" level subjects (Ministry of Education 1978-82 Report, p. 45). The N1 Programme has since been transferred to the BCC.

The other major area of co-operation between the Campus and the BCC which should be discussed is that of accreditation. The dimension of accreditation involved here is that of exemption from part of related training programmes at the Cave Hill Campus, specifically as this concerns the BCC's newly-launched Associate Degree programme.

The BCC's Associate Degree programme is a four-year programme in which students are allowed to read for the first two years of a B.A. or B.Sc. degree at the BCC and then complete two more years at the Cave Hill Campus. It has been sanctioned by the Barbados Government, and is officially viewed as having at least one major advantage over the "A" level courses traditionally offered by the BCC. It is supposed to make it easier for overseas universities a) to assess the work done by the BCC's students and b) to grant BCC students exemptions from coursework as appropriate.

The Associate Degree programme utilizes the credit system, a system used by many foreign universities. In the BCC component of the programme, the student must take two or three majors, in addition to three compulsory Core subjects. There is provision for the student to be trained in the particular professional area which he wishes to enter.

The Principal of the BCC is reported in a leading local newspaper as saying that the Associate Degree programme has caused the BCC to have a record 4,000-plus applications from persons seeking admission, and that this record-level number of applications represents an increase of over 1,000 applications when compared with the last three years - 1984/85, 1985/86, 1986/87 (See Barbados Advocate, September, 18, 1987). Whether the new Associate Degree programme at the BCC will cause enrolment at that institution to continue to grow remains to be seen. However, there can be no doubt that the Barbados Government has decided to make as much use as possible of the BCC even if this means transferring to the BCC some functions over which the Cave Hill Campus traditionally had a monopoly. At this point, attention will be switched to higher education and research and our orientation will start to become more regional and international.

HIGHER EDUCATION AND RESEARCH

Meaningful examination of the role of higher education in scientific research in Barbados must take into account the fact that scientific research is yet to become an integral part of the culture of Barbados and of other Commonwealth Caribbean countries. The bulk of the research which is done in the region consists of small individual efforts, and is carried out mainly by university students in Higher Degree programmes. Much of the research done by staff members of the UWI and of the University of Guyana has been basic rather than applied, and has been carried out in the face of a major constraint of funding, as Miller has pointed out in the specific case of educational research:

That many of the themes pursued have been unrelated to national issues and policies is substantially explained by the uni-

versity setting in which the research is done: the resources of the university allocated to research are limited. In most instances, the best that the university can do is to provide the staff member with a salary and allow access to the support infrastructure and a protective climate in which to pursue the project with relative autonomy. By and large, little funding is available to finance specific projects.

Research grants go mainly to researchers in medicine, agriculture, natural sciences, and engineering. The number of grants to educational researchers are few and small.

(Miller, 1984, p. 178).

Given the scarcity of funding for educational research, higher education itself has remained virtually untouched by researchers in Barbados. However, in this section of the study we will highlight a few of the major research projects which have been carried out at the Cave Hill Campus a) with the aid of external funding, and b) with the aim of helping scientific research to become an integral part of the culture of Barbados and of the region.

Research Activities of the ISER, EC.

The UWI has three Institutes of Social and Economic Research (ISER), one at each Campus. The Institute of Social and Economic Research at Cave Hill services the entire Eastern Caribbean, hence its acronym, ISER, EC. The ISER, EC. was established in 1963, and is a department of the Faculty of Social Sciences. It is the institutionalized centre of research at the Campus, even though research projects are carried out by individual Faculty members or by the various Faculties as Faculties. The ISER, EC. does not have a teaching function; it is engaged exclusively in research and research-related activities.

The staff of the ISER, EC is small. It consists of a Head, a Senior Research Fellow, a Junior Research Fellow, an Administrative Assistant, an Administrative Assistant/Librarian, a Stenographer and two Office Assistants. However, the ISER, EC also utilizes as appropriate the services of Faculty members for given research projects.

The role of the ISER, EC as a research institution has changed over time. During the 1960's, the ISER, EC concentrated on helping the Eastern Caribbean Governments a) to plan manpower and economic development, b) to conduct studies on all sectors of the economy, and c) to provide trained staff to operate new statistical and economic planning units. At that time, the ISER, EC attached the greatest priority to agricultural activity (ISER, EC 1987, p. 6). A good example of the ISER, EC's involvement in agricultural activity was the institute's investigation of the possibilities for a new nutmeg preserve industry in Grenada.

With the crystallization of the movement for political independence in the region during the 1970's, the ISER, EC changed its focus from that of providing technical assistance to one which has involved more policy-oriented research. Since the 1970's, the ISER, EC's activities have involved the carrying out of multidisciplinary projects, contract research and individual research, and these categories of research have not been mutually exclusive. In the areas of multidisciplinary projects and contract research, the following have been among the more important projects carried out by the ISER, EC: 1) the evaluation, at the request of the Barbados Institute of Management and Productivity (BIMAP) in 1973, of BIMAP's role in aiding small businessmen in Barbados; 2) surveys of General Elections in several Eastern Caribbean Countries; 3) the Eastern Caribbean component of an international study entitled "Man and the Biosphere"; 4) the Eastern Caribbean Migration Project; and 5) co-research with the ISERs at Mona and St. Augustine and with the University of Guyana's Institute of Development Studies in a) the Science and Technology Policy Project, b) the Caribbean Public Enterprise Project, and c) the Women in the Caribbean Project (see *ibid.*, pp. 10-13).

In addition to actually carrying out research, the ISER, EC has organized several public lectures, conferences and workshops, and has been involved in publishing. The ISER, EC's three main publications are: the Occasional Paper Series, the Occasional Bibliography Series, and a bi-monthly journal called the *Bulletin of Eastern Caribbean Affairs*. The Occasional Paper Series disseminates findings from a) the research staff of the Institute, b) other UWI academics, and c) professionals in regional and government institutions. The Occasional Bibliography Series covers areas being investigated by ISER researchers. The *Bulletin*, which was first published in 1975, provides analytical commentaries on political, economic, and social developments in and affecting Barbados and other Eastern Caribbean countries.

The projects which have been carried out by the ISER, EC have been funded by a number of international and regional agencies, including: - Ford Foundation (USA), Inter-American Foundation (USA), UNFPA, UNESCO, IDRC (Canada), Leverhulme Trust Fund (UK), Netherlands Ministry of Foreign Affairs, USAID (USA), Carnegie Corporation (USA), Canadian Administered Fund, and the Commonwealth Secretariat (UK).

It must be stressed that the ISER, EC does not have a monopoly on research at the Cave Hill Campus, and that some research is done by the Faculties as Faculties. Nowhere has this been more clearly demonstrated than in the cases of the UWI/USAID Primary Education Project and the Project on Co-operation in Teaching and Research in Women and Development Studies (Women and Development Studies Project). We will de-

vote almost all of the next section to the Primary Education Project since that Project combined research, innovation, and inter-institutional cooperation at all levels, and is perhaps the most important regional project ever carried out by the University. We will focus specifically on the Women and Development Studies Project when we deal with research and teaching programmes.

RESEARCH, INNOVATION AND CO-OPERATION

If we put aside the question of research for a moment, mention should be made of two very important innovations which have taken place at the Cave Hill Campus in recent years. The two innovations in question have been the introduction of a Challenge Examinations Scheme, and the creation of an Office of University Services. We will deal briefly with these two innovations, since our main aim in this section is to provide a fairly comprehensive description of the Primary Education Project.

The Challenge Examination Scheme

A Challenge Examination Scheme was introduced by the UWI in 1977, some seven years after a proposal for the introduction of an external studies programme involving correspondence courses and radio was approved by the University Council. The Scheme enables students to follow the University's programmes in their own country, and forms an important part of the University's outreach programme. The programmes which are available under the Scheme include: Year I Social Science courses, some courses in Arts, the first-year programme in Law, the Certificate in Public Administration and the Certificate in Education. (The Certificate in Education is offered at the Mona Campus only, and permits specialization in reading, mathematics and the teaching of the deaf).

The programme which has been most popular with students under the Scheme has been that leading to the Certificate in Public Administration. In 1985, some 40 students were awarded the Certificate in Public Administration: 31 from the NCCs and 9 from Barbados. The Scheme has clearly been of some benefit to the NCCs since, in addition to the NCC students awarded the Certificate in Public Administration, 14 students from 3 NCCs completed Part One Law by Challenge Examination in 1985.

The Scheme is apparently in the process of becoming institutionalized, but the University has been wisely advised to have a hard

look at the financial implications of offering external studies programmes under the Scheme. On this matter of financial implications, the Marshall Committee had this to say, primarily to the authorities at Cave Hill and in the Barbados Ministry of Education:

Earlier we alluded to the danger of the University's offering what could develop into external degree-type programmes without the resources to do so. We have seen no costing of the present challenge scheme, even though we are advised that the cost is not substantial. We recommend that the university undertake a precise costing of the scheme, including staff time, and show this as an expenditure item in the budget even if in the final analysis the cost is met from savings.

(Marshall et al, *op. cit.*, p. 31).

At the time of writing, there are no indications that the University is about to abandon the Scheme.

THE OFFICE OF UNIVERSITY SERVICES

Prior to the restructuring of the University in October, 1984, there was no Office of University Services (OUS) at the Cave Hill Campus. With the restructuring, the Cave Hill Campus set up its OUS, with a mandate from the Eastern Caribbean Governments for the OUS to provide professional leadership, planning services, administrative guidance, and resource assistance in the development of the systems of tertiary education in the NCCs. The OUS is a non-teaching unit with a staff of three: a Director, an Educational Planner/Researcher and his assistant.

In carrying out its mandate, the OUS co-ordinates the resources of the Cave Hill Campus to help support NCC negotiations with external aid agencies for financial assistance. Some of the more important of the activities of the OUS during the 1985-86 academic year included: organization and sponsorship of a University Preliminary Year Science Workshop for Post-Secondary Teachers from the NCCs; provision of assistance in the development of specific tertiary-level education programmes for the NCCs (e.g. Community Nutrition Programmes in St. Lucia); and administration of the Cave Hill Campus' outreach programmes such as the Challenge Examinations and the Certificate in Public Administration (see Departmental Report, 1985-86, pp. 158-159).

Like the Challenge Examination Scheme, the OUS has been an innovation from which the NCCs have benefited in no small measure. The OUS is helping to keep the regional spirit alive at a time when the regional character of the University is being eroded. However, the staffing situation of the OUS has made the OUS' planned activities in the areas of accreditation, the Challenge Examination Scheme, and service in tertiary level institutions "perhaps overly ambitious" (Marshall et al, *op. cit.*, p. 32).

THE PRIMARY EDUCATION PROJECT

We come now to the major concern of this section, the Primary Education Project. We will restrict ourselves to the following aspects of the Project: its background and objectives, the outcomes, the problems encountered, and the implications of the Project for future co-operation between the partners.

Background and Objectives

In 1979, the UWI, the Caribbean Examinations Council (CXC), the Caribbean Development Bank (CDB), and the United States Agency for International Development (USAID) entered into an agreement to undertake a regional project entitled Caribbean Education Development. The Project had three components: Primary School Curriculum Development, Primary School Construction and Rehabilitation, and Secondary School Curriculum Development. The component of the Project which is of immediate relevance to this study was that which had to do with primary school curriculum development. That set of activities technically constituted a sub-project of the Caribbean Education Development Project, but was carried out on an independent basis and came to be known as the Primary Education Project (PEP).

The PEP had the following four major objectives:

1. To provide teachers with revised syllabi and teachers' guides so as to make teachers aware of content requirements and of the wide variety of teaching approaches available to implement the syllabi.
2. To provide instructional materials (charts, posters, graphs, reading materials, etc.) for teachers, and either provide for students or help teachers prepare for student workbooks, project exercises, and other materials to supplement and/or substitute for the more traditional textbooks.
3. To strengthen the teacher force through an in-service teacher training programme that encompassed content knowledge, methods of teaching and testing, and ability to understand and use newly-developed more relevant and better quality syllabi, guides and instructional materials.
4. To provide training for school principals, headteachers and supervisors, as well as for territorial educational planners.
(*Massanari and Miller, 1985, pp.3-4*).

The label "PEP" therefore belied the comprehensive nature of the Project. Although the main purpose of the PEP was to improve the learning environment for pupils in the 7-11 age group throughout the English-speaking Caribbean, the PEP also had the important sub-purposes of a) providing training for educational administrators and educational planners, and b) strengthening the UWI's Faculty of Education so as to enable that faculty to extend and expand its ongoing assistance programme to the Contributing Countries in their efforts to improve their educational systems.

The PEP was located in the Faculty of Education of the Cave Hill Campus, but also involved the participation of members of the Faculty of Education of the other two Campuses. A chart showing the PEP's organizational structure is provided in Appendix 6. The location of the PEP in the Faculty of Education at Cave Hill caused the PEP to experience some problems in its start-up phase. We will deal with these problems in a while. For the time being, let us turn to the outcomes of the Project in relation to the objectives listed above.

Outcomes of the PEP

The Project Plan called for each of the 10 participating countries to identify five pilot primary schools, but only 9 countries actually participated in the mainstream of the Project. Jamaica participated only in that component which had to do with the training of educational administrators and educational planners. An Evaluation Plan for the PEP was completed in June, 1981, and became the basis for both internal and external evaluation of the Project. The findings of the internal evaluation helped to modify Project implementation, especially with regard to the conduct of workshops and integration of the curriculum material across subject areas. External evaluations were conducted in June both in 1981 and 1982, and the terminal external evaluation was carried out during May 21-June 15, 1985.

The Project outcomes may be divided into principal and secondary (see *ibid.*, Chapters 3 and 4). The principal outcomes were those connected with the immediate purpose of the Project (which was to improve the quality of learning for primary school age children). They comprised: a) the production of a modified, refined model of curriculum development process which may also be described as participatory; b) curriculum products which included revised syllabi, teachers' manuals, teachers' resource materials and pupils' materials, all in Language Arts, Mathematics, Science and Social Studies; c) reduced reliance by teachers in the Project schools on lecturing/teacher-talk and the utilization by such teachers of more child-centred approaches to teaching and d) an apparent positive impact of the Project on improving the performance of Project school children in the selective secondary school entrance examinations.

The last of the above mentioned outcomes was especially important since the bottom-line of the Project was improvement of student performance at the primary level in four subject areas. The design which was used both in the Project Paper and in the Evaluation Plan to measure improvement in student performance centred around the collection of base-line data, the use of pre and post-tests, and the use of the pilot-parallel schools strategy.

Let us turn now to the secondary Project outcomes, and mention in the process some unplanned outcomes. The secondary outcomes had to do with that sub-purpose of the Project which related to the training of head-teachers/school administrators and the training of educational planners. We will exclude from the discussion the component which was handled by the Mona Campus, and will concentrate on that which was handled at the Cave Hill Campus, through the Project Office itself, beginning with the training of primary school principals.

Under the auspices of the PEP, the Faculty of Education at Cave Hill conducted 22 training workshops for primary school principals in Contributing Countries outside Jamaica. The workshops utilized as resource persons not only members of the Faculty of Education, but also a) officers from the Ministry of Education in the particular country in which a given workshop was held, b) Teachers College staff, and c) representatives of USAID and UNESCO.

The training of educational planners was not a major thrust of the Project, but that particular sub-component nevertheless made an important contribution to the achievement of Project outcomes. Four such training workshops were organized by the PEP, the last three being co-sponsored by UNESCO's Caribbean Network of Educational Innovation for Development (CARNEID). Since the countries serviced by CARNEID included non-English-speaking Caribbean countries, the PEP was widened in geographical scope (see CARNEID, 1985). With the involvement of CARNEID in the PEP, the educational administration/educational planning aspect of the PEP was extended to Cuba, Haiti, the Netherlands Antilles and Suriname.

The resource persons for the four workshops came from a wide range of institutions: the Project Office, the University, CARNEID, Ministries of Education in Barbados and the Bahamas, the College of the Bahamas, UNESCO (in Paris), the Inter American Development Bank (IADB), and the Caribbean Centre for Development Administration (CARICAD). The quality of the training which was provided clearly found favour with the trainees, for 15 of the participants who were trained in the 1983 workshop returned for more training in the 1984 workshop.

As was previously mentioned, some of the outcomes of the PEP were unplanned. The unplanned outcomes included: the development by the Pan American Health Organization (PAHO) of several health readers to supplement the Language Arts materials produced by the Project; CAR-NEID's important contribution in cosponsoring training workshops for educational planners; the contributions of UNESCO, IADB, and CDB; the development and dissemination of the Science education materials by the British Development Division; the development in Belize of materials for teaching English to speakers of other languages; the strengthening by several Ministries of Education of their Curriculum Development Units/Centres; and the carrying out of research activity in the area of achievement testing in Science (Massanari and Miller, pp. 142-148).

Problems encountered

As with any project, the PEP, though highly successful, encountered a number of problems. We will only mention here the problems which were encountered in the start-up phase of the PEP, since that particular set of problems involved the University's Faculty of Education at Cave Hill.

The location of the PEP in the University enabled the Project to benefit from the knowledge, experience and insight of virtually all the talent which the University had available on its three campuses. However, as was pointed out by the External Terminal Evaluation Team in its Report, there was, at least initially, tension between the PEP and a particular section of the Faculty of Education at Cave Hill, even though that Faculty was eventually able to address the needs of primary education in the region directly and substantively in a way it had not been able to do previously (see *ibid.*, pp. 22-23). At the root of the problem was the decision of the University to give the PEP departmental status in the Faculty of Education at Cave Hill.

The tension was between the PEP and the Faculty of Education's Research and Development Section (R and D Section). The Faculty also had at the time (and still has) an In-Service Teaching Section. The In-Service Section always gave the PEP its full co-operation. In contrast, the R and D Section interpreted the University's decision to grant the PEP departmental status as meaning that the Project had been taken away from the R and D Section after the R and D had laid the groundwork both for identifying the needs and for conceptualizing how the needs could be met through a project. The University itself had not rationalized all the details concerning the change in the conceptualization of how the PEP would be integrated into the Faculty of Education, and, as a result, members of the In-Service Section were paid honoraria for work done in connection with the Project, while members of the R and D were not.

The External Terminal Evaluation Team was aware of the tension between the PEP and the R and D Section. It highlighted the real nature of the tension, and successfully put forward a proposal to resolve the difficulties:

Had the Project been integrated into the R and D Section then this differential treatment would be justified but in light of the change, to full departmental status for the Central Project Staff, it was not. After recommendations made by the External Evaluation Team in 1981 this problem was resolved so that members of the R and D Section were also paid honoraria for work done. In some instances members of the Section adopted a cordial but "arms length" approach to the Project. After these initial difficulties were sorted out, almost all members of the R and D Section contributed to Project implementation either directly in running workshops or indirectly through (advice to or) consultation with Project central staff.

(*ibid.*, p. 22).

Implications for Future Co-operation

The Report of the External Terminal Evaluation of the PEP appropriately stressed that while the PEP represented successful developmental co-operation among the three partners (USAID, the UWI's Faculty of Education, and the 10 Ministries of Education) the future for each partner would be different because of the outstanding success of the Project. Accordingly, the Evaluation Team examined the implications of the Project for each of the three partners (see *ibid.*, Chapter 8), and we will briefly summarize what the Evaluation Team had to say on this point.

With regard to the implications for USAID, the Evaluation Team pointed out that the Caribbean Education Development Project had pioneered a regional approach to assistance even though the funding was U.S. in origin. The replacement of the traditional bilateral model of aid with a regional model permitted the experts, the conceptualization of content and approaches, and the methodology employed enabled the PEP to be entirely of Caribbean origin. By having the goals of the PEP jointly agreed on by the three partners, and by leaving the means of goal-attainment entirely in the hands of the University and the governments, USAID negated any possible charge that it had imposed U.S. personnel or ideas on any aspect of the Project. Through the PEP, USAID found partners, and intermediaries such as the CDB and CXC, on whom it could rely for future ventures, and the regional approach had wider applicability than to education alone. The generalized regional project model which the Evaluation Team proposed is shown in Appendix 7.

Next, we come to the implications for the University. Through the PEP, the University demonstrated that when it was given the resources it could assemble a team of competent Caribbean administrators and professionals to deliver a quality product. The PEP also opened up the question as to whether the University should not establish, on a permanent basis, a Department of Primary Education within the Faculty of Education at Cave Hill. The Evaluation Team took the time to stress that such a Department could service the needs of the Contributing Countries, especially the countries within the Organization of Eastern Caribbean States, and that this regional approach through a central department of the Faculty of Education, Cave Hill, would be more cost effective than if each country sought to establish its own national curriculum unit.

Finally, the PEP had implications for the Ministries of Education. The successful implementation of the PEP was due in part to the quality of the top administrators (including Chief Education Officers) selected by the Ministries of Education to be participants. The PEP raised the question as to whether such persons could not be more actively involved in the process of teacher training in the NCCs, where the existing low level of teacher training has been a serious constraint to the further improvement of primary education.

In addition to the question of teacher training, there was that of the distribution of teaching materials and supplies. In some participating countries, the Project schools had materials for pupils and teachers, while non-Project schools had virtually nothing at all. In the dissemination phase of the Project, all schools will have some teaching and learning materials and supplies, but the Ministries of Education will still need to establish some kind of policy regarding an equitable distribution of materials and supplies.

RESEARCH IN TEACHING PROGRAMMES

The university teacher should be competent in subject matter, teaching skills and research skills (Shorey and Layne, 1986, pp. 69-70), and members of the academic staff at Cave Hill are presumed to have these skills. Those Faculty members who are involved in the Higher Degrees programmes have been integrating into the coursework the findings from research carried out by their students, especially as these findings relate to the Caribbean. However, it would appear that the integration of research with teaching programmes is more prominent in some faculties than in others.

The Faculties of Social Sciences and Medicine appear to be in the lead as far as the integration of research with teaching programmes is concerned. In the Faculty of Social Sciences, this is especially true of the Departments of Economics and Sociology. In the areas of History, Literature and Marine Biology, Caribbean material has been included in course offerings because of basic research done by some staff members. The staff members who have suffered the greatest handicap have been the natural scientists, who have been hit very hard by the lack of funds for essential equipment (*ibid.*, p. 72). The indications are, however, that the Campus is moving in the direction of establishing a close link between research and coursework, and the current Women and Development Studies Project has been playing an important role in this respect.

THE WOMEN AND DEVELOPMENT STUDIES PROJECT

The Women and Development Studies Programme is an innovative programme linking research and coursework, and is being carried out at the three campuses of the UWI. It has been developed by the women of the UWI and has received its initial funding from the Ford Foundation. Under the Programme, an innovative project of co-operation in research and teaching between the University and the Institute of Social Studies (ISS), the Hague, was approved in 1985. This project, which goes by the short title of the Women and Development Studies Project, will receive from the ISS approximately US\$600,000 over 3 years, with possible extra funding for a further 2 years. Under the terms of the agreement, fellowships will also be provided.

Background and Objectives

In 1977, the University's Extra-Mural Department and the Jamaica Women's Bureau co-sponsored a seminar on the Integration of Women and Development in the Caribbean. As a result of that seminar, a Women and Development Unit (WAND) was established within the University's Extra-Mural Department at Cave Hill. It should be pointed out immediately that WAND is not a unit of the University in the strict sense of the term. The University pays the salary of the Co-ordinator of WAND. The Co-ordinator of WAND in turn raises funds, of which the University takes 10%.

In 1982, WAND convened in Barbados a meeting of UWI women to discuss the possible development of a Women's Studies Programme at the University. This followed upon the completion of the ISER's Women in

the Caribbean Project, to which reference was earlier made. Out of the Barbados meeting came the following initiatives and topics which were designed to form a basis for teaching and research:

- a) To examine the development of Caribbean societies and the changing position of women within them through the analysis of a number of topics.
- b) To develop a knowledge of the development of society within a historical perspective, and the part women have played in the process, through a critical analysis of existing social, psychological and physiological theories.
- c) To examine the social division of labour within various countries internationally but with special reference to the Caribbean.
- d) To develop a knowledge and critical examination of the cognitive, developmental and social learning theories related to sex differentiation, with special reference to the Caribbean.

(Women and Development Studies Project Document, 1985, p.5).

At the Barbados meeting, a steering committee was established to co-ordinate the activities of the three Campus groups, each working through a campus co-ordinator. The meeting also worked out a three-phase plan for the gradual introduction of teaching in Women and Development at various levels within the University. It was anticipated that the outcome would be an integrated and inter-disciplinary programme of teaching, research and action, and with that end in view the University's Women Studies Group approached the ISS in 1983 for assistance.

The Project Programme

The Women and Development Studies programme is intended to meet four levels of training needs in the area of Women and Development. The four levels of training needs have been specified in the Project Document as follows:

- i. Exposure of all students at University level to general training in Women and Development at under-graduate and post-graduate level. Initially this would involve the Faculties of Arts and General Studies, Social Sciences, Education, Law and Agriculture...
- ii. Training of teaching staff at the UWI. This would necessitate a) the training of junior staff at the M. Phil/Ph.D level in Women and Development at the ISS; b) the organizing

of short seminar/workshop type courses for more senior staff who are unable to be away for long periods of time.

- iii. Strengthening of the existing Outreach Programme of WAND through the UWI's Department of Extra-Mural Studies by the participation of the programme staff in the short courses organized for the teaching staff.
- vi. Provision of specialized training at post-graduate level for persons presently or intending to be employed by national, regional and international organizations focussed on Women and Development.
(*ibid.*, pp. 10-11).

As was previously mentioned, the Project is expected to have three phases. The areas to be implemented during Phase I relate mainly to staff development, but also include other teaching activities, research, staffing and personnel developments, and material inputs. Let us elaborate on "other teaching activities" and "research" since these areas are the ones of immediate interest in this study.

During Phase I, pilot teaching is to take place in the Faculties of Arts and General Studies, Social Sciences, Education, Law and Agriculture. These activities are supposed to take place at the under-graduate, post-graduate and Outreach levels. The courses planned for development during the first phase include: Women in the Caribbean; Research Approaches to Male/Female Relations in Caribbean Society; Sex-Role Stereotyping; Women and Child-rearing and the Development of Adolescents.

The research component of the Project is intended primarily as a support to teaching. It is intended to take these three forms: preparation of teaching materials (mainly desk/library research); supervised student research at undergraduate and graduate level on specific topics; and advanced theoretical and applied research. The supervised student research has been planned to be highly innovative:

Student research at post-graduate level will make an important contribution to building up a data base in this subject area. Individually or in small groups, students will design and complete their own research with the assistance of faculty members. All the research projects will involve original research and include three to twelve months fieldwork, usually requiring extensive surveys and/or library/archive research at various institutions and other countries.

Students are responsible for writing research proposals, recruiting and training interviewers and assistance [sic] where necessary and managing the budgets for the projects.

(*ibid.*, pp. 26-27).

As envisaged in the Project Plan, the second phase of the Project would run from October 1988-September 1990. This phase would be used to consolidate on the staff development, pilot teaching and bibliographic development done in Phase I, and would be marked by the introduction of an interdisciplinary Masters Degree in Women and Development.

Actual Achievement

The Women and Development Studies Programme has been made possible because of considerable lobbying and sheer hard work on the part of the small group of UWI women, especially the women at Cave Hill and St. Augustine. The courses originally planned for Phase I of the Women and Development Studies Project have been reviewed in time for the actual implementation of an Introduction to Women's Studies course at St. Augustine and Cave Hill. The Introduction to Women's Studies course was offered for the first time at St. Augustine from October, 1986, and at Cave Hill from October, 1987.

An inaugural seminar on "Gender in Caribbean Development" was held at the St. Augustine Campus in September, 1986. Inter-institutional cooperation at the international level helped to characterize that seminar. The seminar was funded by the Commonwealth Secretariat and the Board of Global Missions. It was attended by teaching, research and documentation staff from the UWI's three Campuses and the University of Guyana. Resource persons were drawn from the three Campuses, E.C.L.A., universities in the United States, the I.S.S., and the Institute of Development Studies (Sussex).

In 1987, 3 two-week inter-disciplinary seminars were held, one on each Campus. The focus and objectives of each seminar were determined by the needs and resources of the Campus group. The Cave Hill Seminar was held during October 15-25, and its theme was "Women's Studies: Interdisciplinary Readings". The three interdisciplinary seminars have been a prelude to a series of disciplinary seminars scheduled to be held over the next two years.

In structure and design, the Women and development Studies Project has recognized the importance of research in the initial training and subsequent professional development of the University teacher. In addition to involving the participation of senior and experienced researchers from within as well as from outside the University, the Project has provided much-needed opportunities for younger staff and similar personnel to work and study alongside their more experienced fellow professionals. As this author has commented elsewhere, this "cannot but be to the mutual benefit of both groups as well as to the project in which they are all involved" (Shorey and Layne, *op. cit.*, p. 73).

The Women and Development Studies Project should be viewed not as just another educational innovation, but as part of a struggle to bring about a fundamental re-distribution of power in Barbados and Caribbean society. This was made unmistakably clear in the one-page note which the Co-ordinator of the Women's Studies Group at Cave Hill prepared for a recent meeting between that group and a CIDA representative on the subject of possible funding from CIDA for certain aspects of the Project:

The rationale for our work is the critiquing, changing and transforming of the curriculum. The existing curriculum in this definition of "human" and human achievement reinforces existing patterns of access to power, as well as hierarchies of class, race and sex. We aim, through teaching, research and outreach activity to transform traditional knowledge by incorporating information and an understanding of women's and men's roles in development. We consider that this investment in education is central to the redistribution of 'cultural' and, hence, political power and that education is a critical response to the challenges of development.

(Drayton, 1987).

Whether this potentially revolutionary goal will be achieved remains to be seen.

CHAPTER 5

FUTURE PERSPECTIVES

The information provided in the preceding chapters strongly suggests that the rigidly elitist system of higher education which existed in Barbados during the colonial period has given way to a system of higher education which has been making an important contribution to national and regional development. We have seen how in post-colonial Barbados an effort has been made to establish a link between higher education and national development through at least the following: an increase in the number of Barbadians enrolled in higher education; the restructuring of the UWI to give Barbadians greater control over the Cave Hill Campus; the obvious policy-emphasis on hiring Barbadians and/or West Indians as staff members; the use of the SRLF to tie studies in higher education to priority areas in national development; increased public expenditure on higher education; the promotion of scientific research; the move to integrate research with teaching programmes; and the implementation of innovative projects such as the Challenge Scheme, the PEP, and the Women and Development Studies Project.

It would be misleading to conclude from the above catalogue of achievements that higher education in Barbados is perfectly democratic, or that higher education is making a perfect contribution to national development. We have seen how the world of science at the UWI is still basically a man's world, and how a dubiously meritocratic conception of distributive justice has been manifested in a process of educational selection which formally begins at the tender age of 11—. We have seen how the Cave Hill Campus has become something of a "white elephant" to the Barbados Government, a situation which has been aggravated by the restructuring of the University. We have seen how the Barbados Government expects post-secondary education (including education at the Cave Hill Campus) to make a greater contribution to national development, and how the Women and Development Studies Project has questioned the relevance of the University's curriculum to national and regional development.

The question which presents itself, then, is: what does the future hold in store for higher education in Barbados? How one answers this question depends on the particular perspective on the future which one holds. Since the issue of the contribution of education to national development boils down essentially to the matter of costs on the one hand and "effectiveness" on the other, we will first mention the different perspectives on the future which have been used in educational planning, and then focus on the fundamentally important issue of cost-effectiveness.

DIFFERENT PERSPECTIVES ON THE FUTURE

There are basically six perspectives on the future which have been used in educational planning. These perspectives range from those which assume that the future is more or less like the present, to those which assume alternative futures (Table 5.0). The perspectives which assume that the future is more or less like the present are not concerned with far-reaching structural change, even though they allow for the implementation of innovations and for reforms. They utilize either a short- or a medium-term time horizon. In contrast, the perspectives which assume alternative futures are concerned with the redefinition of goals and means, explore scenarios and invent futures, and utilize a long-term time horizon.

Educational planners in Barbados have assumed that the future is more or less like the present. At the national level, educational plans have formed part of the Five-year Development Plans, and, as we have seen, the Cave Hill Campus has tended to engage in triennial planning. Unless there is a radical departure from this practice of using a medium-term time horizon, it seems reasonable to suggest that a qualitative transformation of the system of higher education in Barbados is not likely to take place in the foreseeable future.

It should be pointed out that the first four perspectives in Table 5.0 are being treated separately by this author for analytical purposes. In the real world of educational planning in Barbados, all four perspectives are used, although the second and fourth are heavily emphasized in the current Development Plan (1983-88). There is no reason to believe that the Barbados Government will abandon its policy-emphasis on the efficient use of resources now that enrolment at the Cave Hill Campus appears to be leveling off. Given the high cost of university education, we can expect even closer collaboration between the Cave Hill Campus and the BCC as the Barbados Government intensifies its search for "cost effectiveness" in education in general and in higher education in particular.

THE ISSUE OF COST-EFFECTIVENESS

In its quest for cost-effectiveness in higher education, the Barbados Government will need to resist the temptation to assume that a reduction in costs is necessarily to be equated with increased effectiveness. The simplistic and misleading equation between reduced cost and increased effectiveness has already been accepted by some influential persons in educational circles in Barbados, and such persons have been using the local newspapers to try to persuade the public to see things their way. For instance, Leonard Shorey, the apparent leader of the movement to reduce the cost of higher education in Barbados, has spoken of the "money wasted" on a

TABLE 5.0. DIFFERENT PERSPECTIVES ON THE FUTURE USED IN EDUCATIONAL PLANNING

Type	Perspectives on the future	Areas of Change	Type of Behaviour	Time Horizon
A.	Future is like the present	no qualitative change	anticipatory, incremental	1 year (budget) short term
B.	Future is an extrapolation of the present	Student teacher economic resources	responding to social demand manpower needs	5-10 years medium term
C.	Future is like the present but without present	single alternative area of reform	implementing reform	1-5 years medium term
D.	Future is like the present but technological change	single alternative e.g. radio/t.v./computer	implementing innovation	1-5 years medium term
E.	Comprehensive alternative futures	Various possibilities, interaction between education, in various forms and social economic and technological factor	exploration of scenarios and mathematical models	20+ years long term
F.	Alternative futures	goals (and therefore means)	futures invention and futures history	0-20 years long term

Source: UNESCO, 1982, b, p. 11.

number of programmes at Cave Hill, and has contended that such programmes can be offered cheaply at the BCC (see Shorey, 1987, pp. 5, 11). As we have seen, the Barbados Government itself seems to be moving in the direction of transferring to the BCC programmes at Cave Hill which it considers to be in the "two expensive" category.

The problem is that the advocates of reduced educational costs in Barbados will increasingly be asked by females and other groups which are demanding equity in higher education to define rigorously what they mean by cost-effectiveness and to avoid subordinating considerations of equity to those of efficiency. It is important, therefore, for us to distinguish between cost-effectiveness and a number of related concepts which have erroneously been used by many people in Barbados and elsewhere as synonyms for cost-effectiveness.

The term "cost-effectiveness" has sometimes been erroneously equated with "cost-benefit" or "cost-utility" or "cost-feasibility" (Levin, 1983, pp. 17-30). Cost-effectiveness analysis refers to the evaluation of alternatives according to both their costs and their effects with regard to producing some outcome or set of outcomes. Under cost-effectiveness analysis, effectiveness data can be combined with costs in order to provide an evaluation that makes possible the selection of pathose approaches which provide the maximum effectiveness per level of cost or which require the least cost per level of effectiveness.

Cost-benefit analysis refers to the evaluation of alternatives according to a comparison of both their costs and benefits when each is measured in monetary terms. It is difficult, if not impossible, to place money values on all of the costs and results of particular alternatives, and this is why many cost-benefit analysts have switched to cost-effectiveness analysis. *Cost-utility* analysis refers to the evaluation of alternatives according to a comparison of their costs and the estimated utility or value of their outcomes. It is the appropriate tool to use when subjective assessments must be made about the nature and probability of educational outcomes as well as their relative values. *Cost-feasibility* analysis refers to the method of estimating *only the costs of an alternative* in order to ascertain whether or not it can be considered.

In the case of Barbados, we can expect to hear more and more about the cost-feasibility of offering at certain tertiary-level institutions some programmes which are currently being offered at the Cave Hill Campus. Just as the BCC has launched an Associate Degree programme, we can expect Erdiston College to compete with the Faculty of Education at Cave Hill in the area of Certificate and Diploma programmes in Education. We can expect BIMAP to intensify its effort to take over some of the work which is being done at the Cave Hill Campus in the area of management

training. But will the fact that these three institutions can offer certain programmes more cheaply than the Cave Hill Campus necessarily mean that they would be more cost-effective than the Cave Hill Campus?

At the global level, many researchers have switched from the once fashionable cost-benefit studies to cost-effectiveness studies, some involving non-monetary objectives, because their efforts to estimate the monetary returns to different types of educational investments led them to reach unstable and conflicting conclusions. In drawing this vitally important matter to our attention, Davis has pointed out how the two main approaches to cost-effectiveness analysis have been characterized by their preoccupation with economic efficiency:

One approach emphasizes meeting fixed targets at the least cost; another aims at the maximization of objectives subject to fixed-cost constraints. In either case, cost-effectiveness analysis shifts the emphasis to questions of economic efficiency in undertaking educational missions, beyond the more fundamental question of whether to undertake a mission in the first place.

(Davis, 1980, p. 12).

In order to increase the contribution of higher education to national development, the educational authorities in Barbados will need to adopt a long-term perspective and deal with the difficult question of the goals of the educational system. In particular, they need to be clear in their minds about the goal of higher education, if "complementarity" between the Cave Hill Campus and other tertiary-level institutions is to mean more than offering programmes more cheaply. Universities in both "Developed" and "Developing" countries have self-sufficiency as one of their goals, and some universities have found themselves on a precipice because they have stepped out of their shores and become a substitute for government (Thompson, 1976, p. 15). Be this as it may, the Marshall Committee saw the Cave Hill Campus as having an obligation to work more closely with the other tertiary educational institutions in Barbados (Marshall et al, op. cit., p. 19) and this author believes that such a trend has already commenced and is perhaps irreversible.

CONCLUSION

Higher education in Barbados today is making a greater contribution to national development than it was able to make in the colonial period. More innovative, relevant, and equitable education is being offered at the Cave Hill Campus than was the case in the past, but this does not mean that the Cave Hill Campus should become complacent. There is pressure on the

Cave Hill Campus to collaborate more closely with other tertiary education institutions, and this pressure will certainly continue as the Barbados Government continues to search for ways of restricting the rate of growth of educational costs.

The Cave Hill Campus is at Stage V of Bowles' five stages of educational development (see Bowles, 1976, pp. 440-459). This stage—the stage of achievement of university maturity—is one in which the University has moved from a limited role as a teaching institution preparing for professional life or government service to a larger role as the institution central to the support of national development. The Cave Hill Campus has taken this role not only through its manpower selection and training, but through research, planning, programme development, and project management and evaluation. In other words, the Cave Hill Campus has moved from a service role to an operational role in development. To the extent that Barbados is a genuinely democratic society, ways will be found to develop universal programmes in higher education without damage to the economy, as long as the mass of the people decide upon and demand the goal of increased opportunities for higher education. In this context, the Barbados Government needs to move from medium term to long-term planning.

APPENDIX

APPENDIX 1

THE CODRINGTON BEQUEST OF FEBRUARY 22, 1703

"My two plantations in the island of Barbados to the society for the Propagation of the Christian Religion in Forraigne parts, erected and established by my late good master William the Third, and my desire is to have the plantations continued intire and 300 negroes at least to be kept thereon, and a convenient number of Professors and Scholars maintained there, all of them to be under vows of poverty and chastity and obedience, who shall be obliged to study and practise Physics and Chirurgery as well as Divinity, that by the apparent usefulness of the former to all mankind, they may both endear themselves to the people and have the better opportunities of doing good to man's souls whilst they are taking care of their bodys, but the particulars of the constitution I leave to the Society composed of wise and good men"

Source: As reproduced in Holder, 1987, p. 7.

APPENDIX 2

LETTER FROM BISHOP PARRY TO THE PRINCIPAL OF CODRINGTON COLLEGE DATED JUNE, 25 1847

Bishop's Court Barbados, June 25th, 1847

My Dear Mr. Principal,

I concur altogether in your view of General Codrington's bequest; and I cannot but feel surprise, as well as regret, that Sir BOWCHER CLARKE, first confounding, as it appears to me, the *end* proposed by the Testator (the Propagation of Christianity) with the *means* recommended (a College), should afterwards lose sight of *both*. I quite agree with you also as to the comparative results of the College and the School which preceded it, even when the latter was aided by exhibitions to England, and think that to reconvert the College into a School would be to West Indian society a great loss, to the Church in the West Indies an irreparable one: it being perfectly utopian to think of supplying these dioceses with Clergy, excepting here and there one, from English Universities. It is what *never has been* done yet, and what, from the nature of the case, *never can be* done. We must have *our own College* for the supply of our Church with Ministers, and still more with Missionaries. If we lose Codrington, we shall have to supply its place, as best we can, with another. A School would be nothing to us in comparison.

My only regret in regard to your letter, is that you have not dwelt more largely on the *collateral* benefits of the College to our West Indian youth, of the more educated classes, generally, whether designed for the Ministry of the Church or not, in supplying them, though not gratuitously (which can never be done except to a few) yet at a *very moderate expense*, with the advantages of a good academical education on Christian principles, such as all professions, and gentlemen of no profession, require as the common basis of their different studies. To restore the School with Exhibitions to England would be, for the sake of a very few, the more talented of whom would probably remain in England, to deprive many of the academical education now within their reach. Many young men resort to Codrington College, who would never be likely to go to England under the exhibition system. Just at this moment, indeed the number at the College is small. The College in fact has been suffering, as from other causes now happily removed, so not a little from the agitation and prejudice produced by the attempt, however patriotically and uprightly meant, to secularize, and restrict mainly to one Island, the Founder's noble design of spreading abroad the Christian religion.

Earnestly trusting, that through the Divine blessing on the deliberations of the venerable *Society for the Propagation of the Gospel*, so deplorable a result may be prevented.

I am, my dear Mr. Principal
Very sincerely yours

The Reverend Richard Rawle
Principal of Codrington College
T. BARBADOS

Source: As reproduced in Holder, 1987, p. 23.

APPENDIX 3 IMPORTANT DATES IN THE HISTORY OF CODRINGTON COLLEGE

1712 - The SPG obtained possession of the two Codrington estates, Society and College.

1713 - Colonel Christian Lilly, a famous English architect, was commissioned to prepare plans for the college. They took him two years to complete.

1714 - Work on the college began.

1743 - The building of the college was completed.

1745 - The College was opened as a Grammar School with 17 pupils.

1780 - The College as well as the neighbouring "Mansion-house" were almost destroyed by a devastating hurricane.

1797 - The College was repaired and opened under the Rev. Mark Nicholson as president and superior master, and Mr. Thomas Moody as his assistant. The grammar school was moved from the upper estate back to the College.

1829 - The grammar school was removed to the Chaplain's Lodge on the upper estate under the charge of the Rev. John Packer. Measures were taken for the opening of the College "no longer as a mere grammar school for boys, but as a strictly collegiate institution for the education of young men, especially with a view to Holy Orders" (SPG report on Codrington College, 1847).

1830 - The College was opened for the reception of students.

1831 - The College was devastated by a hurricane, but by 1833 most of the damaged buildings were repaired.

1899 - The SPG took a decision to close Codrington College. There was a concerted effort to prevent this disaster, with the governor of Barbados and the Archbishop of Canterbury appealing for funds to ensure the college remained opened. There seems to have been a change of heart at the SPG, and it sent out some £ 2,200 to the College.

1926 - The College was gutted by fire with only the walls left intact.

1930 The College was re-opened with a slight increase in accommodation.

1976 - A new scheme for the running of the College and the Codrington estates was introduced. The SPG felt that the day-to-day running of the College should pass to the Anglican Church in the Province of the West Indies. It authorized the establishment of two boards, a board to manage the Codrington estates, and a Board of Governors to see after the welfare of Codrington College.

1983 - The Codrington Trust Act 1983 -27 was promulgated in the Barbados Parliament. The administration and control of the Codrington Estates Trust were vested in a new Board of Trustees. This superseded the arrangements of 1976, and allowed the legal control of the Codrington Trust to pass from the SPG to a totally West Indian group after some 271 years (1712-1983).

Source: Holder, 1987.

APPENDIX 4

PUBLIC DEBT OUTSTANDING BDS\$ MILLION

1978	435.6
1979	494.8
1980	567.4
1981	798.3
1982	1,096.6
1983	1,306.8
1984	1,472.7
1985	1,639.1
1986	1,812.6

DEBT SERVICE PAYMENTS - BDS\$000

	Interest		Amortization		Sinking Fund	
	Internal	External	Internal	External	Contribution	TOTAL
1977/78	15,313	3,106	7,644	10,129	2,446	38,638
1978/79	17,181	5,558	405	7,904	2,670	33,718
1979/80	18,577	9,865	5,237	8,835	2,670	45,184
1980/81	20,757	9,731	5,922	12,833	2,830	52,123
1981/82	37,422	14,983	4,620	13,127	3,750	73,902
1982/83	50,631	20,533	6,340	14,571	3,835	95,910
1983/84	38,830	23,869	8,068	18,388	3,833	92,988
1984/85	40,129	24,853	8,540	22,602	3,810	99,934
1985/86	38,488	31,346	3,645	29,449	4,035	106,963
1986/87	37,961	43,202	16,131	39,560	3,800	140,654

Source: Central Bank of Barbados, 1987.

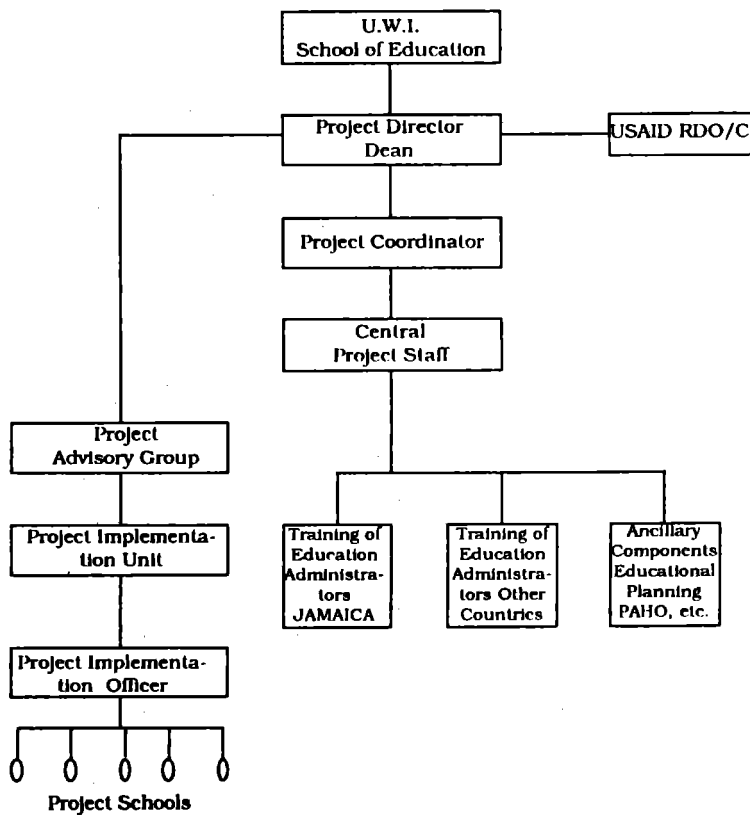
APPENDIX 5

CAPITAL EXPENDITURE, BY FUNCTION 1980/81 TO 1986/87 (BDS\$000)

Function	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
General public service	17,654	25,617	20,681	42,869	51,877	37,546	47,866
Education	12,037	12,829	4,739	4,411	4,159	4,924	1,380
Health	25,032	25,897	7,077	7,220	7,301	10,769	14,815
Housing and community amenities	13,676	12,092	11,571	11,714	9,980	20,798	9,774
Other community and Social services	1,804	1,892	1,349	1,218	4,054	5,062	1,412
Economic services	49,655	61,806	51,741	46,449	42,984	57,664	83,848
Agriculture	6,848	11,704	9,783	7,286	16,036	19,389	20,309
Water and other services	8,700	7,419	4,433	5,286	5,767	2,236	4,443
Roads and other transport	20,280	22,128	13,957	8,236	13,693	30,847	60,002
Trade, industry and tourism	13,827	20,555	23,568	25,641	7,488	5,192	3,094
TOTAL	138,824	173,074	112,669	126,758	134,154	146,063	165,058

Source: Central Bank of Barbados, 1987.

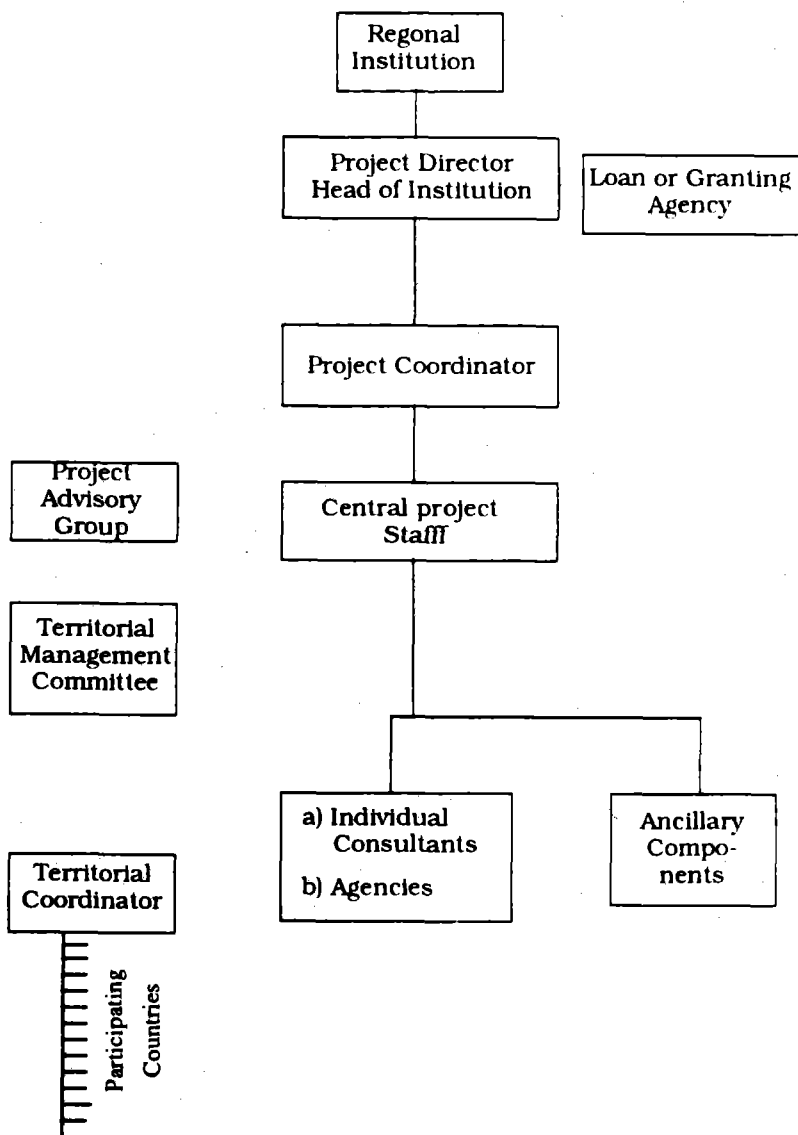
Appendix 6
Organizational Structure of the Primary Education Project



Source: Massanari and Miller, 1987, p. 18

Appendix 7

Generalised Regional Project Model



Source: Massanari and Miller, 1987, p. 18

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