DEVELOPMENT AND EDUCATIONAL CHANGE IN JAMAICA ,1960 - 1975:ADAPTING SECONDARY EDUCATION TO INDUSTRIAL AND SOCIAL NEEDS

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ABSTRACT

DEVELOPMENT AND EDUCATIONAL CHANGE IN JAMAICA 1960 - 1975: ADAPTING SECONDARY EDUCATION TO INDUSTRIAL AND SOCIAL NEEDS

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Recently, a spirit of change has pervaded educational activities in Jamaica. It arose from dissatisfaction with the way the schools were geared to serve the needs of the changing society; and what was termed irrelevance of curricula. Changes appeared at all levels of schooling, particularly at the secondary level, where education was intended to serve the pursuit of development goals. Reactions to the changes have not been favourable: it is said the new arrangements are not coordinated with development plans. Objective of the study: To see whether the educational changes could indeed have led to economic and social development as envisaged by politicians and educational planners alike. Changes are examined in the light of two themes: 'educational change' and 'development'. The one pertains to reorganizing education systems so that they can serve as means of achieving economic and/or social development. The other concerns "development" and the way education helps to achieve 'goals' which countries set themselves.

The method employed throughout is both descriptive and analytical. Surveys of the literature on "education and development" and material dealing with the evolution of education in Jamaica, provide conceptual foundations.

Analysis of educational planning in Jamaica reveals that the real forces that could influence social change have not been harnessed. Approaches that might be helpful are implied throughout the study; but the writer recommends the 'comprehensive system' of schooling and more attention to adult and higher education for consideration. The first would be more useful in creating opportunities for individual and cultural development. The second has more immediate and higher pay-offs to any 'investment' in education for economic growth; while the third can spearhead reforms through advanced study and research.

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INTRODUCTION AND STATEMENT OF THE PROBLEM

INTRODUCTION

'Development' has become a central theme in debates concerning the reorganization of Jamaica's formal education system. Curriculum development, and other measures for improving the quantity and quality of education, are part of this debate. They are not just slogans in the discourses; they are linked to the nation's aspirations for development, and feature prominently in Government's policy programmes as well as other literature on education.

The reasons for this are not difficult to discover. Although it may be universally accepted that economic growth is the basis for the prosperity of nations, in a fundamental sense, development depends on some form of education, for it is through the educational process that a people learn to understand and to constructively alter their natural and social environments so that they can enjoy a richer and more diversified life. They learn to exploit natural resources in order to produce more of life's necessities; how to develop new modes of employment; and how to create new values by which their lives can be guided. Some of these efforts will no doubt require international cooperation, but as the experiences of "developed" countries have demonstrated, if newly developing nations are ever to overcome poverty, or reduce other shortcomings, it will be with indigeneous effort, and with the help of education, rather than dependence on already advanced nations.

Therefore, next to the emphasis on economic growth as a key factor in the process of development, is the attention given to education. This is especially true of developing countries like Jamaica where the leaders have high expectations concerning formal education and intend to use it as a lever for transforming the society.

In a country which has only recently become independent, it is recognized that education is pivotal to industrial training and essential for future socio-economic development in the island. As these aspects of development require skills that can be taught in schools, that fact is taken into account to shape measures for improving the spread and quality of schools with a view to utilizing the education given there as a force for development. Ministry papers such as "The New Deal for Education in Jamaica" and "The Education Thrust of the '70s,* are evidences of such policy. They indicate Government's awareness for educational development and show what plans have been formulated to promote programmes which should enable the future adult population to serve the nation's as well as their own needs for better levels of living. Both documents also indicate measures to institute free education so that it (education) would no longer be confined to a comparatively small proportion of the population who were socially and economically fortunate to obtain it.

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*These documents will subsequently be referred to as "The New Deal" and "The Education Thrust", respectively.

The need to 'push' educational development stems also from the fact that at the time of attaining independence, Jamaica was experiencing a measure of economic growth. This factor, coupled with population growth, influenced the demand for education beyond elementary levels where the majority of Jamaicans were being educated in 1960. The introduction of 'Common Entrance' or the 'Eleven-plus Examinations', had (to a degree) made secondary education available to more students but the proportion of graduates from secondary schools was only about 7 per cent of the population at the time. Furthermore, self-government meant that more Jamaican nationals were in charge of administrative affairs in the country, but it did not mean immediate changes in education, or in the society at large. There was the assumption (often not unfounded), that legislators failed to plan adequately to meet the society's needs for education, hence criticisms arose as to the quality of graduates from the local school system. For various reasons, many did not fit the requirements for industry, commerce, or for the Government Service where changes were being experienced. For example, the departure of many expatriates left vacancies which, according to the climate of opinion, should be filled by nationals - many of the latter needed to be trained and qualified.

Because the criticisms reflected inadequacies in the education system, the logical thing to do was to change or modify it in some way, if only to redress the imbalances. What was done however, has given rise to a number of questions. This study is a part of the enquiry.

CHAPTER ONE

THE PROBLEM

This study is mainly concerned with changes in Jamaica's education system during the period 1960 through 1975, and with the reasons for implementing such changes.

The island's educational history shows that it was not uncommon to make adjustments to the system before 1960; but subsequently, attempts were made to attune changes to 'national purposes' in the sense that educational offerings should be more directly related to the country's development goals. In this perspective, considerations were given to expansion and to formulating suitable programmes - particularly at the secondary level - with a view to: (i) developing skills that the society will require for industry and for further economic development; (ii) equalizing educational opportunity for all members of the society, thereby ensuring personal growth and cultural development, both for individuals and at the societal level. Thus the "New Deal", which laid out the first comprehensive plan for reorganization, gave the following as the essence of the objectives:

> General improvement of educational standards at all levels in quantity, quality, diversity and with relevance to Jamaica's social, cultural, economic and civic needs (p.6).

Another section extends the objective for change in the following statement:

> Economic development cannot proceed, and political independence cannot successfully function without trained manpower. No modern country could promote and sustain a high level of complex economic activity ... whilst its education system remains rudimentary and unspecialized nor could development depend on ... technical assistance from the developed countries. It is necessary to mobilize for development such human resources as already exist and hence the need to encourage the expansion of educational facilities.

We also have the proviso (from page 12 of the document) that:

> ... priority for the programme is the establishment of Junior Secondary schools - the new development in Jamaica's educational programme.

The title of this study is derived from the foregoing and signifies that by reason of the (Government's) emphasis, the exercise will mainly be concerned with secondary education because of the assumption that education offered at this level has more relevance to the island's development.

Our problem is to see whether the path education has followed, during the period under review, is likely to lead to the development desired. Attempts will be made to identify and assess the educational changes in terms of their actual and potential contribution to the goals of development.

BACKGROUND TO THE PROBLEM

The belief that education holds possibilities for social and economic development, is of broad socio-historic significance for Jamaica. It has been suggested for example, that Caribbean societies have no real history of their own and should be viewed as extensions of the European countries with whom they were associated in the colonial period. The result of such associations, according to Raymond Smith, is the inheritance of societies exhibiting enormous cultural complexities, as well as inequalities of wealth, social status and other disparities; the most obvious of the disparities being the gap between rich and poor - a gap which often coincides with ethnic divisions.[1]

In the past, these disparities meant that some sectors of the societies had more opportunity to get the 'best' education, and because of it, an opportunity for social advancement which other sectors in reduced circumstances were quite often denied. Therefore, aside from eliminating these disparities with the coming of independence, the objectives of newly formed Caribbean nations were in part economic development, creation of new societies, and forging national unity in forms quite different from the colonial image. However, the fact that political autonomy alone cannot accomplish these things, has been recognized by leaders such as Dr. Williams. Around the time of his country's independence he wrote:

> On the 31st of August 1962 a country will be free, a miniature state will be established, but a society and a nation will not have been formed.[2]

The reference was to Trinidad and Tobago, but then it was equally applicable to Jamaica when its independence was achieved on the 6th of August 1962, and where there was the similar problem of unifying the nation. In fact, the current administration has acknowledged that the problem still exists. It (the administration, that is) even envisages the creation of an egalitarian society based on social justice and equality of opportunity, and its leader (the Prime Minister) has expressed the feeling that the task might be accomplished through education as long as the organization "is one stream ... through which all children must pass" and in which they must "mix regardless of parental background; and then proceed to higher levels on the basis of merit alone". Such a system he suggests would lay the foundation for an egalitarian society.[3] The question then is what measures were to be adopted to change the system? And following that, what was education like before 1960?

Education for Change and Government Policy

Traditionally, the redesigning of education (in countries with educational backgrounds much similar to Jamaica's) followed in the wake of, or was coincident with, social and economic development.[4] It would be inaccurate to say there were no prior developments in Jamaica's social structure or for that matter in its economic system, but whatever the case, the policies,

behind educational changes in the 1960s were not designed to make education "follow in the wake of changes"; but instead, to bring about change.[5] Thus, they were aimed at skills training, providing knowledge, inculcating pupils with the discipline, the attitudes and the necessary motivation to meet the needs of a changing society. There was also desire to have an open 'social structure', in order to provide avenues for upward social mobility and a school system reflecting such a structure.

In view of this, the school system would be structurally reorganized in order to remove the 'dual' pattern (of schooling) which was the norm in colonial Jamaica. Under that system, elementary education was almost completely divorced from secondary education; and the latter held the greater potential for social mobility. According to the New Deal, "Under the old Colonial philosophy, secondary (and university) education was the monopoly of the ruling classes, and was intended for only the elite". The document also shows that the middle classes in the society were gradually admitted to share in the monopoly but the "less privileged" managed to get "a tiny share" of, what it terms, "better education" through a few Code scholarships, training colleges, private lessons in elementary schools and so on.[6] The measure to change this - according to the New Deal - was to institute junior secondary schools which would not only provide secondary education for wider cross sections of the population and reduce the separation between secondary and elementary schooling, but would provide training in the

competences referred to above (e.g. skills, attitude formation) and opportunities for further advancement.

Because all these meant heavy investments in education, one of the policy measures was that of acquiring additional resources for allocation to the various sectors of the system. The purpose for this was that all facets should be adequately organized to make maximum contribution to the goals which the country (through the conventional wisdom of its elected politicians and educators) had set itself.

SIGNIFICANCE OF THE PROBLEM

Educational change is not a new subject for study. However, there has been renewed interest in it, both as a subject for popular concern and for scholarly inquiry. In fact, a number of commentators on the theme have appeared during the last decade - some have dealt with the administrative aspect of change; some with the process; while others are more concerned with the theory.[7] But as recent case studies have shown, there is more concern with the practical aspects or with the purposes behind educational changes in different parts of the world. These studies are invariably concerned with modifications in various educational systems or with new educational practices, in order to find out how the respective countries' education, or rather the system, has been serving the needs of the country in question.[8]

The comments and criticisms, in Jamaica, regarding the changes with which this study is concerned, cover nearly all the aspects indicated: educators, social scientists and interest groups have all raised questions about adjustments to the education system. Some have questioned the functions of the junior secondary schools and wondered whether they are not "mere expedients of a planning procedure which is itself discontinuous and crisis oriented".[9] Most admit that improvements had been overdue, given Jamaica's recent development; but there is concern as to the reality of the "New Deal style" of attacking the problem; that is to say, trying to improve the school system and expecting it to respond almost immediately to development needs by providing skilled people (for the labour market) and other requirements for development.[10]

Another concern is whether the new arrangements are any different from past ones, with all the furore about 'colonial education'. The question is: have they reduced the 'dual' nature which was the norm before 1960? For example, it has been said, "... there exists vestiges of an older English model (in Jamaica) which have largely disappeared in that country,[11] while the Prime Minister believes the system is trapped in "traditionalism".[12] He further remarked that no thought had been given to Jamaica's manpower needs or what skilled inputs were necessary to "accomplish certain economic possibilities". By his implication, if training is not geared in that way, then education for development cannot be really relevant.[13]

On the question of social and cultural development, there is the assumption that different levels of the secondary system are serving different groups within the society; and that this is a result of the differential influence which each social stratum has in determining the type of education which is offered to its children. In other words, it is believed that junior secondary schools are offering elementary education to children of working class parents, but because the parents of the upper and middle classes have 'some influence' (directly or indirectly) on education, their children continue to attend high schools where a "better quality" education is offered. The implication for employment is that preference is often given to graduates from high schools. According to the anthropologist Kuper, "the feeling is that junior secondary schools are ... deceptions practised upon the poor and uneducated Jamaicans".[14]

Furthermore, a former Permanent Secretary in the Ministry of Education talks about "dysfunctionality" in this kind of education and supports his arguments with the findings of studies which he had previously carried out on junior secondary schools. He shows, for example, that students place a value on education for social mobility reasons but only 5 per cent reported that they liked the practical orientation of the junior secondary schools. He goes on to say principals report that after leaving school, many students return to 'evening institutes' but very few of them continue to study any practical subjects. From this he concludes that education is valued, but not the type the schools (in this case junior secondary) offer.[15]

From the comments relating to junior secondary as opposed to high schools and the implications arising with the type of education offered in each case, we have the example of an educational problem which Husén calls "organizational differentiation". This problem he suggests is mirrored in the structure of school systems and arises largely as an outcome of the policy adopted by some central authority (for example parliament). What he points out is that the structures of school systems are largely affected by the weight of traditions which characterize them and that they are themselves influenced by the surrounding society.[16] Relating this to Jamaica, we find that, traditionally, high schools have been differentiated from elementary schools, and more recently from junior secondary schools. This is an important factor in determining the kind of job one gets after leaving school, and it is in turn related to social mobility and status. On this point, John Hearne, a Jamaican novelist and political analyst, has made the following observation:[17]

> In education, although recruitment for secondary and technical schools had been extended to include more working class children, the idea of a pyramidal system - of the few educated for white collar jobs, and the many given such basic instructions as fitted them to perform simple manual tasks - had not changed much in thirty years.

The educational adjustments in Jamaica have also been the subject of articles in the daily newspapers where there are comments that it is time for re-examination and assessment, especially as examination results have been average and in some cases 'poor'.[18]

In view of the concerns expressed, one could venture the generalization that Jamaicans are not against educational changes, but the type of change and what results because of the changes are important to them since a high value is placed on education and it is expected that much can be accomplished by it. We are therefore concerned with a problem which is clearly of significance to warrant attention.

ORGANIZATION OF THE STUDY

The study is organized into six chapters. These are arranged under three parts, or sections. Part I introduces the research problem, which (along with its background and significance) is explained in Chapter One. Part II explores meanings of 'development'; its (development) possible relationship with education, and what it might mean to educate people for development. In short, Part II (Chapter Two in particular) focuses on the functional role of education in development. A number of considerations are included, but particular attention is given to the way education is conceived as providing knowledge, skill competences, helping to form attitudes, the values , and motivation that modernizing societies have found to be almost indispensible to progress. Of particular interest is the concept of 'educational planning' - i.e. a decision making process regarding educational changes and the way the systems may be attuned to national efforts for achieving development goals.

These explorations are continued in Chapter Three which largely reviews existing literature on education and development. Here the focus is on what previous research has explored; the design of systems of education as well as some of the latter day approaches which are considered suitable means for occupational training. A section of the Chapter is therefore devoted to educational changes. Together with Chapter Two, they provide the conceptual foundation for the study.

As education, or rather expenditure on education, is regarded as 'investment' for achieving economic growth, these aspects are thoroughly examined in order to provide a backdrop against which to examine educational changes in Jamaica. Such questions as investment in education; education's relationship with industry - and this includes the 'manpower' problem - are reviewed along with institutional changes which international educators feel are appropriate for building the 'competence' which societies need. At the same time, some of the limitations of education systems in performing these roles, are noted.

Part III deals with education and development in Jamaica. In Chapter Four, Jamaica's educational foundations and the plans for educational changes (in the island) are reviewed. Along with these, what might be called 'the setting' for development is considered. Under the latter heading,

for example, certain aspects of the island's history, its geography, and its societal features are briefly examined.

Chapter Five describes educational changes in Jamaica during the period under review; while Chapter Six assesses these in the light of the island's objectives for development and against the background of reviews in Part II of the study. The final Chapter also presents the conclusions and makes suggestions which might possibly be helpful to educational planning in Jamaica.

The study does not pretend to offer solutions for the issues it discusses because after exploring the concepts it is realized that hardly enough is known about the way complex societal factors interact - that is, economic, social, political - to enable one to make definite statements on some of the more crucial points.

A number of references are made to 'developed societies' but these are mainly for comparisons as the study is limited to considering what developing or modernizing societies might do in order to achieve a measure of development. With respect to Jamaica, one would have liked to explore in more detail, some aspects of its political development, but this has to be seen as part of the wider social question; in any case, relevant information and other data which could be helpful are not easily secured.* There is no doubt that

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*It should be noted at this point that documentary evidence - especially those dealing with education - are not

(contd. next page)

much political activity was behind the changes and there was the notion of using the education system as a means of making the emerging citizenry more nationally conscious since political independence is part of the island's modernization. But as implied, the state of the records limits one's analysis to what is available. Furthermore, finding an order for treatment of the study has been less easy than anticipated; the chronological approach which suggested itself at the beginning had to be dismissed and a more descriptive and analytical approach followed. Finally, it should be noted that most of the changes to be discussed came late in the period under review; and there is still experimentation and attempts at further adjustments in order to find replacement for the older system of education.

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readily available. However, source material from various compilations and available research material which have attempted chronological descriptions of the island's educational development, have enabled one to bring enough factual evidence together to show where the system stood at the beginning of the sixties and also to get an idea of the direction in which the planners intended to go.

In the exercise the writer has also been assisted by his experience as a Jamaican who has worked within the education system for a number of years; and furthermore from his having discussions and interviews - both planned and impromptu - with education officers and other members of the Ministry of Education.

PART II

THEORETICAL CONSIDERATIONS

CHAPTER TWO

BASIC CONCEPTS: DEFINITIONS

Insights into the process of development, and the kind of education that will contribute to it, are complicated by the fact that 'development' has many interpretations and secondly because the functioning of education systems are not always understood.[1] Many scholars and international organizations have suggested principles for planning educational development to match national development needs,[2] but a general theory providing for the full integration of educational development with social or economic development, has not been put forward. Most studies seem to concentrate on education and economic development, hence the observation that the problem has only been partially explored. Sociologists have also concentrated on "tensions and disharmonies" following the introduction of Western systems of education into developing countries, but little has been done to set standards or to lay down rules for adapting educational systems to the social structures of developing countries and the requirements of development.[3]

This chapter aims at identifying and exploring some of the main conceptions of development and finding out how education might contribute to the process. The purpose is to focus discussion upon aspects of the problem which appear to be inter-

national in their implications and which are of relevance to this study. What constitutes development and the possible relationships between education and development will be the main concern. As it will be convenient to use certain general terms, these are defined before turning to the main concepts.

Definitions

Education systems are usually considered as "systems", and from the point of view of their functions.[4] The 'education system' or 'school system' (that is the public or formal sector of it), refers to the regular educational institutions of a country - from elementary schools through university - within which the formalized process of teaching and learning is carried on, and which primarily involves teachers, students and administrators. The systems' organization and structure define stages in the educational process; that is, what shall occur at each stage, and how individuals pass from one stage or level to another. In the context of development, education systems will be expected to carry out certain functions; thus political decisions (i.e. Central Government's) will be made with regard to their establishment, the budgetary allocations made to them, and with their administration.

The foregoing will in one way or another relate to the education process, or the way the systems operate to produce "competent individuals" to fit various 'roles' in the society.[5] Hence, the education provided should give each student a chance to develop talent(s), and personality; it should provide the

requisite knowledge, skills, attitudes and values, in preparation for occupational roles as well as for many other life situations; and, according to current trends, education systems should train productive workers; that is, an economic dimension which is now systematically being dealt with, by assessing 'manpower' requirements so as to develop education as a function of over-all economic planning.[6]

The process by which individuals acquire competence (according to Staley), consists of three components: 'education', 'training', and experience. All three refer to instruction and learning in preparation for occupational roles as well as for other life situations, but training is instruction and learning "concerned with performance of a specific task, or set of tasks, making up a job or occupation".* Experience refers to learning (much of which is unplanned), that takes place in occupational settings - factories service enterprises - but simulated experiences contrived in schools may provide learning experiences similar to those in real life situations.[7]

Distinguishing Features and Limits of Formal Education Systems

The education systems of most societies are somewhat clearly differentiated from other institutions for specific

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*The distinction between "education" and "training", according to Staley, is mainly one of degree of specificity. Following Harry S. Broudy et al, he shows that the dividing line is not very sharp as one often merges into the other. Further that the distinction is consistent with that of Broudy and his associates who show that "training" implies learning for use in a predictable situation, while "education" implies learning for use in unpredictable situations; Staley (1971: 10).

purposes. As such they usually engage large numbers of young persons for prolonged periods; hence a solid rationale is established for concentrating upon formal education (as defined above), and also for changing or modifying the systems, if there is need to make them more efficient, or for shaping them to serve national purposes. At such times, consideration may be given to new curricula, and new methods of instruction, so that schools can provide the requisite knowledge and the skills for the purpose.

However, there are reasons for believing that they (schools) will not always function as required because of certain features which are peculiar to education systems and which, perhaps, may limit their capacity to respond to national aims or policy objectives. When viewed in the context of developed societies (such as Japan; European countries, and those areas settled by Europeans, e.g. North America), education is seen as one of the most crucial supports for their continuance as "developed societies" since it supports their technologies, and their communication systems, and because it helps to maintain their political organizations at levels where customary law and simple mores would seem unworkable.[8] But aside from countries like Japan and Russia where education is said to have had a decisive role in their transformation to modern societies, its exact role in bringing about development is debatable. What is more certain is that during their maturing stages many of these countries carried out educational

changes in order to reinforce its (education's) support in the areas noted.[9]

Many developing countries who are now attempting educational changes do so for similar reasons as the developed societies; but there are other reasons as well. As Coleman points out, in modernizing nations, "education has achieved the role as the principal agent of change which is available to the polity"; it must therefore respond to "politically generated demands for its services"; among which are demands for additional school places, and the desire of the ruling elite for replacement of foreign personnel.[10] The expectations of these countries, regarding what they can achieve through education, may be well founded (especially as modern techniques of 'planning' are available to them);[11] but there are suggestions that they should give more attention to sociological and qualitative questions which are relevant to understanding the role of education in development and not concentrate too narrowly on the educational process in a single manpower context.

Modern analysts agree that manpower and other targets, which require specific skills and knowledge of education systems, will demand specific capacities and competences within the systems; therefore, there will be justification for altering both the programmes and the method of instruction. But while this is all too obvious, sometimes the subtleties of education may not be fully appreciated. For example, an education system may be adjusted because of demographic, social,

or on account of economic pressures which may call for increased enrolment; but these external pressures cannot dictate particular organizational arrangements or specific curricula. They may offer output targets - for example the number of skilled persons demanded by industries, or the number of pupils who will enter the first grades - but they cannot offer precise data for educational planning even though they generate statements of intent.[12]

As Don Adams sees the problem, it is deceptively easy to impute to education a homogeneity which does not in fact exist; he points out that education is marked by so many complexities at the different levels and in the programmes of instruction that it obstructs generalities. For example, in industrialized societies it (education) is increasingly characterized by specialization and differentiation of processes but in any case there is always such a long lag between the initiation and completion of any of the conventional stages that it complicates planning for the future.

Again education systems are inherently conservative in the sense that they tend to preserve the past generations' established bodies of knowledge, sets of values, and attitudes; therefore to the extent that they perform a homogenizing function they may do so only for a 'tiny elite'. Modern systems may attempt changes in order to extend the function of education to the masses but students and parents alike, who view the education system as preserving and enhancing social status, may resist changes.[13] Inherent in these concepts then,

is the idea that education systems may perpetuate existing social structures instead of creating conditions under which new forms may evolve. However, optimism for the future is not entirely unjustified; new levels of proficiencies are being developed through the techniques of planning and forecasting, and some of these may yet offer solutions or valuable guidelines for developing countries. In order to gain some understanding of the relationship between education and development therefore, it is necessary to examine the concepts against each other to gain some insight into the way education might contribute to the process of development. This follows below.

Underdevelopment Conditions

Starting with conditions of underdevelopment we find that in spite of an apparent lack of consensus on the nature of development there is a certain consistency in the description of underdeveloped societies, and each description would seem to suggest the kind of action necessary to initiate development. Of course it would take more than education to raise the levels of the countries concerned but there are indications that education can help most of the conditions listed.

Among the often-mentioned characteristics of underdevelopment are the following:[14]

1. A high percentage of the population is usually engaged in agriculture where the yield is often poor because of poor farming methods and the labour force unskilled save in the crudest forms of the activity. At the same time, a high percentage of the production (raw materials) is exported, usually to 'safe' markets in developed countries.

In most cases, land distribution is uneven; that is to say, much of the acreage is occupied by large farms while the remainder is divided into small holdings which are usually tenant held.

2. The rates of unemployment or underemployment are often high, hence there are generally low per capita income levels, low savings, and consequently low levels of domestic investment.

3. Levels of technology are usually low when compared with 'developed' countries.

4. High birth and death rates, but often with the latter declining and a consequent 2% to 3% growth in population. In most of these countries too the health facilities are usually limited to the urban centres.

5. The education systems of these countries are either undeveloped or in the process of development with large elementary sectors. Aside from the fact that illiteracy rates are often high in these areas, there are uneven feelings of national cohesion coupled with tradition directed behaviour, and much emphasis on "particularism" and "ascribed" systems of stratification.

6. There are often variations in the state machineries: in some cases characterized by military or feudal domination. In the case of former colonies, some of them have fairly well developed and stable systems of government patterned on the models of their metropolitan rulers.

Of course one or other of the items listed may apply to societies which are generally considered 'developed', and some which are considered 'undeveloped' may not be well characterized by some of the features listed.[15] But if a country has many features which are said to be typical of undeveloped societies, then it is logical to consider it an example of 'underdevelopment'.

Now these conditions and everything contingent upon them - low levels of production, low incomes, 'poor' life-styles -

tend to have a self-perpetuating character, thus underdevelopment is said to constitute a "vicious circle";[16] because people are ignorant, they are poor; because they are poor, they lack the means of investment, and because of both these things they produce little and so they become poorer. In a sense therefore, development ought to mean taking some action or making some effort to get away from these conditions and aiming at goals which will mean general betterment for the society. Before finding out what actions are suggested however, it will be useful to gain an insight into the conceptions of development. This follows in the section below.

Development: Concepts and Theories

In much of the literature on the subject, development is often identified with economic growth especially when the reference is to countries aspiring to improve conditions such as those listed above. To be sure economic growth can improve them, for ultimately it means increases in per capita incomes or output;[17] and there is little question that low income is at least a partial explanation for many of the items listed.*

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*Economic growth is usually measured by indicators such as the rate of increase in the incomes per head of the population; increases in per capita consumption of goods and services; the rate of capital formation (or capital accumulation) and investments; and the level of industrial production among other things. Capital formation (or investments), is usually represented in such tangibles as industrial plants, factories, power supplies, development of natural resources; and in intangibles such as the training of personnel. Capital, in the sense that it is often used, may be regarded as most important in creating changes in a country's wealth or in its output of goods and services. It should readily be appreciated that (contd. next page)

But noneconomic factors are also involved; and it has been pointed out that incomes per capita are average measures of a country's wealth which in fact say very little about its distribution among households, occupational groups, urban as against rural areas, and so on. In other words, a country may be rich enough economically to rank among those with the highest per capita incomes yet it's wealth may be so inequitably distributed that severe poverty exists among its population. Many of its people may also be illiterate or in poor health, thus indicating that social reforms are necessary. Because these things do exist, development has come to acquire wider meanings than economic growth; in one sense, for example, it is used to mean changes (in societies) which lead to goals such as a "better quality of life".[18] Thus for Muhammad Huq "Development implies change in economic, political, and social systems" of countries and it involves "the use of human as well as physical resources to raise the levels of living of the people."[19] As he sees it, "development is a means to an end"

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economic growth is not an end in itself, or an objective of development in itself; but a means or a result to be desired to the extent that it creates the conditions for further development.

See e.g. Demas, William G.; The Economics of Development in Small Countries: With Special Reference to the Caribbean (McGill University Press, Montreal 1965)
Kuznets, Simon; Modern Economic Growth: Rate Structure and Spread (New Haven, Conn., Yale Univ. Press 1966)
Lewis, W. Arthur; The Theory of Economic Growth (Homewood, Ill., 1955)
_____; Development Planning: The Essentials of Economic Policy (Harper and Rowe, Pub. New York 1966)
Meier, G.M. and R.E. Baldwin; Economic Development (New York, John Wiley and Sons 1957)

and the process, whatever it involves, directed towards achieving goals which concern human welfare.*

But while the concept 'human welfare' covers the entire range of a nation's economic, social and cultural life, and indicates that progress towards their achievement cannot be measured entirely by the rate of economic growth, it does not fully cover the nature of the problem nor say anything about changing the way of life of a people so as to ensure the emergence of a more satisfactory pattern. Huq's idea does indicate that the resources involved in development are both human as well as physical, but as Myint observes, there is a danger in the 'underdevelopment' approach which tends to amalgamate people with natural resources and consider both as underdeveloped. Myint's point is that people are mutable human beings whose way of life can be transformed so that better relationships between man and man, and between man and nature, may be accomplished.[20] The human aspect is therefore further considered.

It has been pointed out for example, that the development of a country should be considered in terms of its social structure as well as the economic conditions related to the

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*Using a listing from the United Nations General Assembly, Huq cites the following as essential goals in the concept of of development: 1) a minimum standard of living consistent with human dignity; 2) sustained improvement in the well-being of the individual; 3) sharing of benefits by all; 4) more equitable distribution of income and wealth; 5) a greater degree of income security; 6) expansion and improvement of education, health, nutrition, housing and social welfare; and 7) the safeguarding of the environment.

country. This implies that plans for development should not only be devised to change resources 'per se', but should be aimed at traditional 'norms and values' as well; in other words, they should be aimed at changing the norms and values that hamper development and strengthening those that will promote the process.[21] We therefore find that new concepts such as "modernization" which purport to be more objective, take into account the social structures that should be changed, or transformed, if new institutions, new values and new patterns of integration are to be forged.

Modernization as Development

There seems to be no single theoretical formulation for modernization, but Lerner makes out that "it is the process of social change whereby less developed societies acquire characteristics common to more developed societies";* and shows that 'the process' requires simultaneous transformation

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*Lerner, following Karl Marx (Das Kapital: preface) shows that "the country that is more developed only shows to the less developed the image of its own future". He then explains that 'modernization' is really a new term (for an old process) which arose because the characteristics associated with both types of societies (more developed and less developed) and the modes of communication between them have changed. That is to say, during the era of 'imperialism', it was common to use terms like 'Anglicized" for the image that was transmitted to colonial peoples. However, after World War II, terms such as 'Europeanization" and 'Americanization' came in vogue but did not acquire the same global referent. Therefore, in response to a need - that is, a term for the spread of patterned social change - modernization evolved, thus enabling one to speak concisely of those similarities of achievement observed in all modern societies, regardless of their location or traditions. (Lerner 1968: 386 - 387)

in both the social and economic structures of societies. Thus:

> Modernization produces the social environment in which rising output per head is effectively incorporated. For effective incorporation, the heads that produce and (consume) rising output must understand and accept the new rules of the game deeply enough to improve their own productive behaviour and to diffuse it throughout the society.[22]

and then he notes that:

> ... this transformation in perceiving and achieving wealth-oriented behaviour entails nothing less than the ultimate reshaping and resharing of all social values such as power, ... respect, affection, well-being, skill and enlightenment.[23]

Further on he shows that "this view of continuous and increasing interaction between economic and noneconomic factors in development", has produced systematic efforts to conceptualize modernization as the contemporary mode of social change, that is both "general in validity and global in scope".[24] The question then is, "What are the criteria of modernity"? The concept covers a wide range of societal features from political modernization to urbanization, but there appears to be general agreement that the following are among the salient features: 1) a degree of economic growth which is sufficient to increase production and consumption regularly; 2) "Enlightenment", which takes into account education and the spread of literacy, which in turn function to equip people to perform the various tasks in a modern society; 3) a measure of public participation in the polity (i.e. voting), or at least democratic representation in defining and choosing policy alternatives; 4) mobility - understood in the sense of personal free-

dom of physical and social movement, in short, occupational and social mobility.

Modernization is also depicted in descriptions which use the 'pattern variables' (Parsonian) to focus attention upon the institutional patterns and the value systems of developed as against underdeveloped societies. For example, Hoselitz describes a modernized or developed society as one which has been transformed from a form which in its social and economic aspects was oriented towards "ascription, particularism, and diffuseness" to one oriented towards "achievement, universalism, and specificity". In simplified form, the contrasting features are summarised as follows:

Underdeveloped Societies	Developed Societies*
1) Ascriptive Norms: people are evaluated by their "ascribed status" (in terms of who they are).	1) Achievement Norms: people are evaluated by their "achieved status" (by what they can do, i.e. by their competence).
2) Particularism: certain people are permitted to do only certain jobs, as in a caste system.	2) Universalism: anyone is able to compete for any job.
3) Diffuseness: economic relationships are bound up with other relation-	3) Specificity: relationships between any two persons are specific,

*Marion Levy adds "Traditional vs. Rationality" to these contrasting pairs, and explains that "... as the level of modernization increases, the emphasis on rationality increases. That is to say, there is an increase in the emphasis on explaining one's reasons for doing a given thing in scientifically defensible terms as opposed to explaining it on the basis of 'We've always done it that way'". Levy op. cit. p. 61.

ships such as kinship, politics, religion, or other social structures.	governed by contracts. Everything the relationship is to cover is explicitly defined and delimited.

In analysing societies according to the descriptions, Hoselitz shows that the norms - "ascription" versus "achievement" and so on - govern the social relationships of people, their production systems, and consequently the levels of development in the respective 'types' of societies. For example, where the selection for roles is based on ascription, that is to say, "who one is" rather than "who is competent to fill the role", or where patterns of role distribution are 'particularistic" rather than 'universalistic', social and occupational mobility is difficult; and, where the role performance is typically diffuse, there will be low levels of division of labour and specialization, and consequently low levels of productivity. The typically 'traditional' societies will therefore experience low levels of economic and social development in contrast to those which are developed and which have different sets of norms and value systems supporting their continued progress. For example, where there is division of labour, it makes mass production possible; relatively open social structures allow for occupational and social mobility, and for the distribution of roles (as well as the gains from economic activity) on the basis of achievement. Furthermore, if ability is more important than one's status, there will be scope for innovation; a searching for profitable markets; and

full sanction given to the pursuit of self interest. These are the features (in Hoselitz' terms) which are characteristic of a 'developed' society.[25]

Although the concept modernization has wide currency, some commentators believe it is useful in dramatising the contrasts between societies but not as a guide to action; furthermore, the use of the pattern variables for description is said to oversimplify complex social situations since they describe 'ideal types' into which very few societies fit exactly.[26]

However, the concept does appear to have significance for understanding development insofar as it draws attention to the "mutual dependence between changes in economic activity and organization and in social structure".[27] Hoselitz' analysis also points to societal features which are conducive to development: there are for example, mobility and specialization among others as well as value attitudes which are characteristic of developed societies. With regard to their significance for the effective application of policy measures in developing societies, he says in another context:[28]

> The applicability of any set of policies depends upon the social, cultural, and material environment in which these policies are applied, and this holds for education as well as for other measures designed to lead to economic advancement.

Now considering that development entails working towards goals concerning human welfare and that certain features characterize developed societies the next question is how or by what mechanisms do societies become developed? Or, what

are the paths by which transition occurs? The answers to such questions are often lengthy and not always very clear cut, but some theoretical considerations and reasoned analyses provide general outlines along which some answers may be obtained. For example, those who see "underdevelopment" as a vicious circle contend that 'development' constitutes breaking the vicious circle. Once this occurs a beneficient circle takes over, pushing the society towards developed status.[29] Thus Nurkse shows that the way out of the deadlock is balanced investment, productivity and marketing of goods. The logic, in brief, is that much growth can be explained by increased investments - inputs into land, capital and so on - for increasing productivity; whatever additional investments occur, will have cumulative effects in areas such as employment and marketing. Employment creates additional purchasing power which in turn calls forth increased production and further growth.

Nurske builds his theory around economic variables - capital shortage, lack of markets and investment possibilities. The noneconomic variables are assumed to be amenable to change as basic economic problems are solved, and an upward spiral of favourable economic relations creates a developed society.

To others like Rostow, development is an evolutionary process during which societies become modernized.[30] The process takes place in "stages", the lengths of which vary from country to country, but all countries, of necessity must

pass through some of the stages. He identifies five stages in the development of societies - the traditional society, pre-conditions for take-off, maturity and the age of high mass consumption,* and shows that the evolution is in fact a set of social circumstances which allowed for continually large investments accompanied by rationality on the part of investors and managers. Also needed in the process are expansion of technology, a sizeable market, and new manufacturing sectors as well as the emergence of a new class of elites who can move the society into a new stage.

In explaining how the process of development is initiated, Rostow says that "it takes time to transform a society in the ways necessary to exploit modern science" and shows that the idea of "progress" might originate from outside of the society but once there is the realization that progress means "a better life" the idea gives way to "the process by which a modern alternative to the traditional society (will be) constructed out of the old culture".[31]

Thus the traditional society which is heavily dependent on agriculture with little or no access to advanced technologies or the ability to use them, commences transition when there is recognition (by the political power) of the value of modernization. Change therefore begins with a build-up of social overheads, roads, railways, ports; by technological improvements in agriculture and in industry; and by social and institutional changes which provide the requisites for the "take-off".

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* Note: The 'take-off' is itself one of the stages in the process.

During the take-off the society overcomes barriers to steady progress and a chain of activities are set in motion which takes it (society) into maturity. For example, changes are introduced in education; banks are set up in order to mobilize capital for investment; the scope of commerce is widened; manufacturers are encouraged and entrepreneurial activity leads to the exploitation of hitherto untapped resources. All these activities characterize the "drive to maturity" or the subsequent stage of sustained progress and an increasing use of technology. From then on to the 'age of high mass consumption' the society demonstrates its capacity to move beyond the transitional industries of the take-off period to set up new ones which make possible the production of whatever is wanted in the line of consumer goods and services.[32]

According to Rostow, this is the generalized pattern of development that has been followed by Western industrialized countries and by Japan. The Stages in the growth pattern are not always so clear-cut however as the characteristics of one may coexist with those of another. The lengths of the interval between any two stages are not necessarily the same either, in fact two stages may shade into one. For example, Canada and Australia did not have to wait for the stage of maturity before entering 'high mass consumption'.[33]

While most writers are in accord with the economic emphasis on development, and most have accepted the idea that

development involves considerable time, a number of analyses attempt to show that the basis of all development is really the "human resource". The reasoning is that human beings have the "ideas" for development, therefore if any change is to occur in society, this can only come about as a result of effort on the part of those who have the "drive" to bring it about.[34]

These analyses do not disregard the importance of economic factors, such as savings and investment, in development, but argue instead that effective growth depends on those who mobilize the economic factors. For example, "personalities" imbued with "achievement motivation" and those oriented towards "universalism" and "specificity" relations, are more likely to succeed in promoting development than those who are not. The emphasis in these studies is placed on social, cultural and psychological factors which facilitate the emergence of people like 'entrepreneurs' or those who possess a combination of organizational and administrative abilities, along with 'correct' attitudes towards risk taking, and who value postponement of immediate gratification, in order to achieve future goals of development. Furthermore, these qualities are associated with individuals who are "creative" and "innovative" and who can bring about transition in vital areas of the society[35] by making discoveries; suggesting new methods of organization; planning new strategies and adopting the right kinds of techniques that can assist measures for promoting social and economic change.

Curle believes, for example, that "underlying all 'underdevelopment' is the wrong use of people",* and should this problem be tackled before economic growth, the latter would follow eventually. In order to overcome persistent poverty, he suggests people should be given the opportunity to exercise 'creativity' and 'ingenuity', which can release them from "inertia", "tradition" and "fear", because under-utilized people only tend to remain "bound by tradition", and often "not interested in the national life". On the other hand, educated 'elites' (who are not utilized) may find outlets for their energies abroad, in the monopoly of power, or otherwise they may remain a 'disaffected group', most likely unemployed.

He envisages development starting in such areas as agriculture, 'small' industries, rural communities, health services, in all of which education and training can be effective; and where people can be involved in purposeful relationships, thus setting up conditions for increasing employment and helping to build a new society.[36]

Hoselitz on the other hand, stesses the exceptional role of entrepreneurs (in bringing about the transformation of traditional societies) by showing how these "innovators", given the appropriate "institutional opportunities", can initiate the production and distribution shifts which are

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*Meaning in fact the "underutilization" of people.

necessary to modernization.[37] They can also help to create the conditions for full employment and consequently rising standards of living.

McClelland concentrates on psychological elements, and seeks to identify variables which produce "entrepreneurial personalities". He locates the origin of innovativeness in psychological drives or motives that underlie individuals' "need for achievement";[38] and he produces much evidence to show that "internal factors" have spurred men to seek out and exploit favourable opportunities in trading, business and in government. Therefore the societies which are strongly infused with personalities who are highly 'achievement motivated' are likely to have more rapid economic growth than those in which people are less "achievement motivated". Moreover, economic growth is likely to have 'spread effects' because the striving to expand markets, will be more concerned with altruistic schemes for "bettering the lot of mankind" rather than for personal gains.[39]

Education and Development :The design of Systems

It is evident from the above discussion that development cannot be considered in any one sense, therefore the goals to which education might aspire will cover a wide socio-economic spectrum; hence one cannot be absolutely sure just how education will contribute to the process. Evidently most countries will want to promote economic growth because of the gains to be derived from increased incomes, but

development will necessarily involve a measure of social change; thus there will be decisions to make regarding the kind of educational policy to emphasize. That is to say, should the educational policy be directed towards immediate and direct results, as through technical-vocational education or should it be aimed at individuals' enrichment through the more general courses? The answer will of course depend on the development plan that the particular country wishes to emphasize. Curle, for instance, suggests that educational policies should be either "short-term" or "long-term": the extent and nature of which would be directed "by the economic expediency of having higher productivity in the economic sector of the society". Thus short-term education could be provided in relatively short courses, and could be oriented more to 'trades' which can absorb the products, while long-term education could be provided in institutions where considerably more would be learned, and the products of these latter institutions fill managerial or leadership positions.[40]

Other analysts examine the problem more broadly and are generally agreed that development depends on a 'mix' of components which includes technological improvements, specialization and division of labour, appropriate social structure and education. There is also regard for the attitudes which are considered conducive to development and somewhat close to education, therefore there are suggestions that mechanisms be built into educational plans for their increasing application.[41]

Education, as one of the factors influencing development, is regarded as having a 'determinative' role, that is to say, it is considered as constantly interacting with the rest of the social structure to induce changes in technology; provide skills training; and assist in the formation of desirable attitudes to development; but at the same time, it is very much dependent on the rest of the social structure for its direction.[42] With regard to the specific ways in which education contributes to development, there is general agreement that it (education) does so in various and subtle ways although these cannot be determined with any degree of accuracy. Perhaps the problem is better seen as Huq suggests; for example, he explains that in view of the varying levels of development across developing countries, an appropriate 'mix' of the components (identified above) cannot be determined "by absolute policy prescriptions for any one country" but must be adapted to the conditions peculiar to the particular country. However, assuming a country knows what it wants to achieve, then it will make conscious efforts towards achieving its objectives by:

1. setting its targets - that is, its national goals;
2. using the education system to provide the knowledge, skills, technology and other requirements that will be needed to work towards achieving its targets.*

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*(Huq, Muhammad S.; 1975: 53)

(contd. next page)

The direct role of education in respect of contributing to the development process, comes through interaction with the rest of the social structure. In other words, the various sectors (including government's policy measures) will exert their influence on the educational sector which in turn will influence economic and social development by improving "human resource factors". This may be done through skills training; the occupational knowledge it provides; the increase in managerial competence, specialized training, technological advancement, and so on. Together with physical capital, "the improved quality of occupational competence" will have a direct impact on the society's productivity. Furthermore, education will be expected to develop traits such as creativity, adaptability, value attitudes: these provide incentives, not only for increasing productivity, but for doing so more efficiently. Assuming that a certain quantum of growth is achieved, therefore, the change will largely be the result of productive

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Both measures are usually carried out within the framework of "National Plans" which set the priorities for development. These may be economic growth or they may be social reforms. In either case, the plans will determine what contributions education will be expected to make to the development process.

The second measure - educational planning - will either be carried out separately or as part of the overall national plans with the expressed purpose of attuning educational efforts to national development goals. Thus education may be expected to produce 'manpower requirements' and adjustments will be called for in curricula, enrolment, etc. in order to maximise the economic or social contribution of the education system.

See Chapter Five subsequently. Parnes, H.S.; Planning Education for Economic and Social Development (OECD/Paris, 1963: 73 - 84)

techniques - advanced technology - and new skills assisted by the attitudes and the values formed through education.[43]

Education can also make "qualitative" contributions to development in terms of social values which, although not given the same prominence as economic growth, are also concerned with human welfare. For example, freedom, human dignity, and social justice, raise important issues relating to the quality of life, but are sometimes understressed as they do not lend themselves easily to measurement. While it is clear that the quality of life depends to a very great extent upon economic growth, a large measure of it, which encompasses these qualities, relates to human and social development, an area which education throughout the ages has always tried to explore and serve. Furthermore, the quality of life is central to the very concept of education, since education is a process of qualitative change "which develops qualities that enable individuals to lead full and productive lives as workers, members of families and of a society".[44]

Education is also concerned with instilling qualities such as honesty, integrity, a sense of public duty - qualities which should be of value to any developing process. In fact, the history of education is replete with many of these ideas which philosophers, from Plato to John Dewey, have stressed in various ways, and since their time, they have been elaborated upon by writers who are of the view that education can be an instrument in the creation of a new social order.[45]

In view of the foregoing considerations then, the decisions facing most countries will not only be what kind of education will best suit their needs (i.e. technical versus 'general' or 'academic' education), but how they can change or adjust their education systems and educational practices so as to maximize the contribution to development. Again, as the tendency is no longer to conceive of 'development' in a single 'normative' sense, most analysts are now thinking that a more broad-based system of general education - particularly one which incorporates some kind of 'linkage' with the world of work - is best suited to the complexities of modernization as long as the intention is to train students for industry. Staley notes for example, that modernizing countries need a variety of skill competences; from those requiring very little education and training to those that require extensive training and which are very costly; only with these can the economic and social systems produce and function under certain given conditions. He considers, in particular, increasing specialization and division of labour which first require that more people be educated, and secondly that the educational content emphasize not only skills training and attitude formation, but "an education for changing conditions" because modernization steps up the pace of change in nearly all aspects of work and life. Education systems, in his view, should therefore place greater weight on preparing students to be adaptable, versatile and occupationally

mobile rather than train them for fixed conditions; in this sense a "good" system of general education which is designed to articulate elements to serve both social and economic ends would be desirable.

On the basis of his arguments, Staley proposes a model to assist educational planning, especially where such plans are considering training for industrial development. The model is a "four-phased conception" of education covering general as well as technical-vocational education and it has suggestions for linking in-school training with employment. A summary of the relevant features and some of his comments justifying the proposals will close this chapter.

The Four-Phase concept[46]

Phase 1 - General Education

Phase 2 - General Plus Pre-Occupational Education

Phase 3 - Job-Entry Training Plus Further Education

Phase 4 - Career-Long Further Training and Retraining With Further Education

The proposal is that phases 1 and 2 will be the responsibility of formal education with cooperation (in phase 2) from employing organizations; while phases 3 and 4 will normally be the responsibility of employment. Ideally, individuals can benefit from all four phases, but in practice, the sequence may not be a straight progression as there will be skipping and making up on missed opportunities especially in cases where a foundation in general education might not have been possible in a formal sense. The underlying assump-

tion, however, is that at least the first two phases will be experienced and a solid foundation laid for further training at the adult stage.

The case for general education is built around the following ideas:

1) It is fundamental in all training and should provide at least elementary skills in oral and written communication, as well as impart some knowledge of the physical, biological and social world, with knowledge of the "humanistic heritage". It should also contribute to the formation of desirable attitudes, motivations and values.

2) General education should also induce 'learning attitudes', in other words, it should provide "skills with which to learn skills".

3) It should provide a general acquaintance with the world of work, with occupational possibilities and other requirements; above all, it should help students to become "trainable individuals".

The second phase applies more to second level (or secondary schooling) or to the levels just prior to the termination of formal schooling. The model suggests that general education (as outlined) would be applicable to elementary schooling and that its broad base would be helpful in countries where this level of education would normally form the largest sector of the education system; but should be continued at the second level although there will be pronounced increase in the amount of attention devoted to the pre-occupational elements at this stage. The occupationally oriented content should however, be quite broad, offering an appropriate background for large groups of occupations, rather than for very specific occupations or jobs, and the aim should still be that of

producing 'trainable' rather than fully trained individuals. The curriculum should therefore be quite broad but those who show special aptitudes and interests should be guided into (extra) courses suitable to the field of their choice; for example, those showing interests in health related occupations - physicians, dentists and so on, might have courses in the biological sciences, chemistry and the human and social problems related to health. The main considerations for education at this level are the following:

1) Students should be provided with information about occupational opportunities as given in "counselling".

2) They should be assisted in discovering their aptitudes and interests and be able to relate these to occupational possibilities.

3) They should also be provided with the opportunity to learn habits of work which are pertinent to some "family of occupations" and sufficient to make them employable; and, along with these, "learning-habits", and "techniques", which will make them "trainable individuals".

The other phases which are more relevant to training in employment and do not concern the schools directly. There is the suggestion, however, that "work-study" programmes can be arranged with employing organizations[47] from whom assistance can be had (a) to assist training in schools, (b) for improving curricula. The reasoning behind this suggested 'linkage' is that training can be provided largely in employment where it will more likely be efficiently done, thus leaving the schools to concentrate on "education" and relieving them of

specific training tasks for which they may neither be well equipped, nor properly staffed.[48]

According to the analysis of this chapter, it is appropriate to conclude with a few suggestions of Muhammad Huq who has given much thought to the problem of designing educational systems for development. He says, for instance:

> It is imperative for each developing country to elect a design of growth and a life style for its own social and economic development, according to its own values and resources. By the same token, the design of its educational system will also have to be consistent with its goals and values, along paths to be charted according to its needs and resources. The most pervasive goal to inspire both designs ... should be the development and utilization of human resources. The degree of success in achieving this goal will be the primary measure of the effectiveness of the plan-strategy in both development and education.[49]

CHAPTER THREE

EDUCATION AND DEVELOPMENT

So far we have seen that education prepares individuals to fit roles in society. The process is part of what the anthropologists call 'enculturation', meaning that education both passes on society's cultural heritage to its new generations and prepares them for occupations in which they can become socially useful and at the same time earn their living. This preparation for roles in the society (through education) is of particular interest to all who are concerned with development; for this reason, a distinction is made between education which merely transmits society's cultural heritage to its new generations and that which can be used productively. The former is usually termed 'consumption education', but the latter kind which purportedly equips individuals for earning their living and for the contributions they will make to society's development, is regarded as 'investment education'.

Some economists therefore speak of investing in human beings, or more precisely, "investment in human capital" as this makes the analogy of education with physical capital more complete.[1] It is said, for example,

> where education results in increasing the future earnings of people, it is an investment in human capital in the form of abilities acquired through education. The productive capacity of labour is (therefore) "a produced means of production" so that human capital is the outcome of investments in which education forms a major part.[2]

Modernizing nations pay attention to investments in education because they need skilled people (with all kinds of abilities) to produce goods and services; and besides, education helps the young to adjust constructively to modernization.[3]

In consideration of the aims behind Jamaica's efforts at redesigning her education system, the purpose of this chapter is to examine various aspects of the relationship between education and development. The intention is to see what areas previous research has explored; the ideas which have been uncovered; and what concepts are used for researching educational problems such as the one being investigated. The latter half of the review will examine some of the institutions considered appropriate for educating and training the young for development purposes; the final section will briefly examine some ideas on educational change.

Education and Development: Investment Aspects

Economists have always focused on the role of education in national development. Their approaches range from a general defense of education as a major force for shaping a desirable society, to attempts at measuring the volume of returns to expenditures on education.

"Classical" economists,[4] who advocated schooling for the labouring classes, entertained the notion that education was not merely for consumption because it helped individuals "to make their fortunes and likewise that of the society to which they belong".[5] Marshall emphasized its importance as

national investment, and declared education to be "the most valuable of all capital that is invested in human beings".[6]

Modern economists attempt to quantify the role of education in economic development. This approach apparently started in the 1920s[7] and was followed by studies which related earnings (of individuals) to years of schooling. Thus, studies of Schultz (1960; 1966) and others, have drawn attention to investment in education and emphasized the fact that human capital, like physical capital, is capable of contributing to the national output or national income.

One implication from these studies for the importance of education to economic development, is that higher education will mean higher (individual) earnings, and this in turn reflects higher or superior contribution to the national output or national income. In other words, national productivity will be higher because of the higher education of those employed. Another implication is that the returns from investments in education, however measured, will compare favourably with returns from other types of investments.[8]

Other economists (in the United States), attempted to measure the proportion of increase in gross national product (between 1900 and 1960) which was due to inputs of labour and capital into the production process. They then came to the conclusion that the remainder or the "residual"[9] was due to improvement in the quality of the labour force resulting from education, organization and inventiveness.[10]

Others again consider the returns from expenditures on education as indicative of economic growth; this is termed the "rate-of-return" or "the cost benefit" approach. The rate of return or the benefits from education are taken to mean "the extra earnings" that typically accrue to people with "additional education". Thus, people with elementary, or primary school education should normally earn less than those with secondary or university education, and those with university education should have higher earnings than those with only secondary education.[11]

Harbison and Meyers, for example, have used data from studies done in the United States to show what various amounts (or levels) of education were worth for different age groups. They reported that between 1939 and 1950, the value of "life time" income (after taxes), was $25,380 after eight years of schooling; $33,466 at the completion of high school; and $41,432 after completing four or more years of college or university.[12]

They also used another approach to determine the relationship between educational attainments and gross national income per capita; this time, on an inter-country comparison basis. In this case, the authors took into account the stage of development of the countries concerned, and also enrolments in the various schools. In their seventy-five-nation study for example, they report that "level one" countries (which are typically underdeveloped) have fewer scientists, engineers,

doctors (etc.) per 10,000 population, also relatively lower enrolment ratios; consequently they have low gross national product per capita (average $84.00 U.S.) as compared with "level four" countries which are advanced and highly industrialized; the latter countries have more doctors, engineers and scientists and a per capita gross national product of $1,100 (U.S.) average.[13]

Most of these studies however, have been questioned as to the correlation between education and economic development as measured in terms of increases in gross national products or incomes. There are also doubts regarding the methods used to arrive at the precise contributions that formal education is said to have made to those incomes, since other factors such as physical capital and on-the-job experiences might have contributed to the total but were not precisely accounted for. There is agreement that education can make significant contributions to economic growth;[14] and that analyses of investment in man make very significant contributions to economic theory. However, the use of the concept is said to be limited, since it is virtually impossible to calculate the rate of financial returns on educational projects in the same way as one might for "dams" or other capital projects. Secondly, there is no way of ascertaining what represents consumption, and what represents investment, in educational expenditures. Harbison and Meyers, therefore, suggest that the emphasis should be placed on human resource development

instead, since the goals of development are social as well as economic and human development is a part of that goal.[15]

Those who study patterns of economic growth in developing countries, do not deny the value of education for development, but doubt whether models of investment (for developed countries) are applicable in the former countries since their institutional framework, including the school systems, and the civil service may be different. Blaug, for instance, provides evidence to show that the rate of return analysis does not work as we are made to believe.[16]

Vaizey contends that the fixed capital analogy has value in pointing to the nature of education for future earnings rather than for short-term earnings; but says the models do not take in account disparities in incomes arising with social class structure and hence the differential opportunities for getting better education and the chances of earning one's living. These models to Vaizey, assume conditions that do not exist in the real world; thus his main contention is whether educational development initiates or follows economic development. He argues that education assists economic growth "where it raises the general level of the community" and enables individuals to acquire skills as the development process gets underway; thus, it is a necessary, but not a sufficient, condition to initiate economic growth.[17]

Zymelman agrees with Vaizey on many points, especially as the latter's historical analyses show that from the beginnings of the industrial revolution, educational attainment was never

really a cause of economic development, but a consequence of changes in the economic and social structures of societies. He cites the "continuous shifting and reallocation of resources", which led to the transformation of societies, as evidence of change, and shows that in the course of history the process was marked by movements of labour from agriculture into industries and thence into services.

At all times, this was reinforced by technological changes which affected not only the composition of the labour force, but also the content of occupations and hence demand for higher education.[18] Therefore, as development proceeded, it generated demand for different types of manpower (especially those which provided mental abilities rather than manual dexterity) at different levels of the occupational system. Hence, white-collar workers and professionals tended to increase vis-a-vis blue-collar workers, and so on.

The upshot is that changes in the labour force affected or changed the structure of societies, since social class is always invariably related to occupational membership. Furthermore, as new entrants with higher levels of formal education entered certain occupations, their educational attainments provided a "floor" of qualifications for succeeding new entrants, and this floor tended to "drift upwards" because of "the tendency for employers to hire workers with higher qualifications" especially when there was a surplus on the labour market.

From his studies, Zymelman concludes that there is positive correlation between education and productivity, but

the relationship does not imply causality; formal education of the labour force may be only a dependent variable. The independent agents in the process are the occupational structure(of the labour force) and the education of workers in specific occupations. These will determine the future qualification of workers. Therefore, changes (or variation) in production varies with the proportion of(specific) occupations rather than with years of schooling.[19]

Education and Development: an Industrial Overview

Researchers who emphasize the correlation between education (i.e. investment in education) and the level of a country's development, also consider the industrial aspects of development. Harbison and Meyers as already shown, have confirmed that the correlation between education and gross national product is highest among countries that are highly industrialized. It therefore stands to reason that developing countries wish to industrialize in order to move rapidly into modernization, and increase employment for their populations.

These countries will no doubt educate personnel for all sectors of their economies, but as Simon Kuznets has shown the industrial sectors of most countries grow more rapidly as development proceeds and therefore increases its relative share of the total labour force.[20] Furthermore, industrialization in developing areas means import substitution,and more diversification of production; and it attracts the international

businesses that bring to these areas the benefits of foreign capital, modern organization, and international market connections.[21]

On the other hand, Curle and Harbison reason that modernizing countries will prefer manufacturing over farming activities as the former makes the pattern of life less traditional; and that industries will enhance ambition, efficiency, and the environment for rapid technological progress. In fact, as Bhagwati shows, the process brings with it a whole complex of "industrial civilization" which is necessary for a progressive nation.[22] Involvement with the "industrial nexus" will also produce entrepreneurs, managers, and other categories of people who are "change-conscious" and who will realize the importance of efficiency. The competence and efficiency which these people usually acquire, will, according to Curle, be taken with them into life after work, and here they can contribute to the transformation of whole communities.

The literature also draws attention to problems of industrialization which sometimes reflect increasing pressures on the education systems of developing countries.* Some

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*Many of the problems (too lengthy for our discussion) involve foreign aid, the dependence on foreign expertise from the advanced countries, and agreements between national governments. Perhaps the most significant as Curle and others believe, is that of "neo-colonialism" which involves some kind of client relationship with "great power" countries, and which means little (or none) of the benefits that many new nations used to reap when they were colonies under an older regime. The point is that the balance of advantages rests (contd. next page)

problems stem from the city-ward movement of unskilled labour - a movement which if unchecked could lead to 'social dislocation' in the form of disordered family life, health hazards in the congested areas of cities, and even retardation of the industrial process itself. It is not that such social ills "must" inevitably accompany industrialization, but the danger lies in the typically unorganized and haphazard migration which swells the ranks of new-comers who cannot be absorbed by the "infant industries". Many will not be qualified and not habituated to the rational and individualistic attitudes that industrialization demands. Therefore, net results could be open unemployment for many, or underemployment for those who are forced to accept low-paying jobs, often in sub-standard working conditions. On the other hand, these problems could retard the progress of industrialization which would bring particular countries nearer to their "take-off" because the supply of cheap expendable labour tends to discourage employers from improving productive methods, since necessary

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with the great power countries under neo-colonialism as they do not share the political responsibilities, with colonies, as their predecessors did. These propositions have implications for education insofar as the colonies may lose their educated elites through what is commonly termed the "brain drain". In terms of profiting from the establishment of local industries (if that is the nature of the agreements), it is believed that the greater share goes to the advanced countries in compensation for the capital injected into the developing countries. The oil producing areas are probably the only exceptions in this case. See e.g. Pierre Jalee's; The Third World in World Economy (N.Y., 1969) quoted in Curle, op. cit. VIII. Jalee calculates that for every unit of aid put in developing countries, by the rich ones, the latter withdraws one and a half times the amount in profits.

skills which would warrant introducing advanced technology are not available. Thus, the often-mentioned 'vicious circle' could become evident in another form, because the modern-sector job seekers who are not able to find stable employment, cannot improve their qualifications and therefore will not be able to struggle out of their lowly status.[23] How do these problems relate to education then?

Aside from the need for basic general education such conditions call for retraining in the habits of work, or as Lewis suggests, an "education in the social relations and the values of the industrial environment".[24] Curle mentions on-the-job training and/or adult education as well as the development of trade unions as possible solutions. Trade unions, he suggests, could be instrumental in educating significant segments of their membership in the efficiency that industry demands. At the same time, they could act, where necessary, as checks on the arbitrary powers of employers.

Staley, on the other hand, sees a potential in such conditions, if not an excellent case, for transforming agriculture and rural living through education. This education would improve the productivity and hence the employment capacity of agriculture; however, it should involve adult education and should be oriented towards more qualified farmers, advisers, and personnel to man the multitude of services (agricultural and others connected with it), for example, the marketing and processing of the products from agriculture.[25]

The arguments relating to education for industry and agriculture therefore center around manpower requirements, which also has its problems. For this reason, Harbison and Meyers, Herbert Parnes and others advise that part of the planning for development of the kind implied above, must involve prior considerations for (a) the types of skilled personnel that will be needed, and (b) the kind of education that will best fit the required personnel. Suggestions for adult education, or on-the-job training, have been noted as short-term measures for fulfilling requirements, but as the training is usually a long-term exercise, there seems to be general agreement that the required education can best be provided in the formal school system.[26] However, as developing countries cannot educate more than a certain number of persons, and if they do, they may not be able to employ all of them, the exercise in determining requirements for manpower has become a most difficult task. The following section looks at the problem.

Education, Manpower Requirements and Development

The rationale for according manpower requirements a prominent place in the education system, according to Parnes, is that the 'lead time' required for producing qualified personnel for industry is sometimes quite long; in the first place, educational facilities, and the teachers to man them, will have to be provided; secondly, it is suggested that planners should be aware of the prospective patterns of skill

requirements at least a decade in advance since it takes time to produce the quality graduates who will be required.[27] Therefore, the school system seems one of the better mechanisms for preparing required manpower.

The real problem, however, is that there seems to be no universally accepted method for determining "manpower requirements", and there is some confusion regarding the meaning of the term. Some authors talk of "predicting" or "forecasting" manpower requirements while others are concerned with "projections" or "target setting".[28] In planned economies where the quantum of industrial output is decided in advance, and where it is based on specific projects, it seems possible to calculate the number of specialists - technicians, and others - who will be required to achieve the target. It may even be possible to decide the number of teachers necessary to train the specialists. But Tingergen has observed, that this is not easy because fully worked-out plans are rare, and the relationship between inputs of skilled labour and the output of goods is almost non-existent. Even modest aims, such as relating the number of technicians to total output is fraught with difficulties which cannot be overcome without elaborate study.[29]

As Parnes sees it, forecasting manpower requirements can be made with sufficient justification to base educational plans upon them, but in such cases, it is essential that the concept be clearly understood, and secondly, if manpower requirements are to influence educational decisions, they cannot be "unconditional forecasts" or predictions of "what

will happen", but more indications of "what must happen if certain targets for development are to be met". He posits that the concept "manpower requirements" is technological rather than economic, and therefore relates to:

> "the functional (occupational) composition of employment that will be necessary if certain social and/or economic targets are to be achieved.[30]

Thus by way of illustration, he shows that we can talk meaningfully about determining requirements with respect to certain categories of workers, but if applied too generally, confusion is likely to result. In such cases as medical personnel, it is perfectly meaningful to determine how many doctors will be required if a given standard of medicare is to be achieved. The same goes for teaching, that is to say, the number of teachers who will be required to teach a given number of children can be pre-determined if the teacher/pupil ratio is decided beforehand.*

However, with regard to the actual (quantitative) forecasts and how they are to be made, and used as a basis for

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*Note however, that even in these cases, requirements cannot be quantified except in terms of certain assumptions about the organizational structure and the technology that will be employed in the given situation or industry. For example, the number of doctors will depend on the support personnel, i.e., medical technicians, nurses, laboratory assistants, equipment and so on. In the case of teachers, the number may well depend on the extent to which effective teaching aids are used, e.g. educational television, sub-professional assistants and so on. For the larger industrial field, the techniques of production will determine the manpower needs. A certain quantum of textiles, for example, can be produced by a large number of workers using hand looms, or in a factory, with few workers, using more sophisticated machinery. See e.g. Parnes, H.S. 1963: 76 - 77.

determining the need for a particular kind of education, as already shown there is no universally accepted method for doing so, but a number of suggestions have been made. Two of those which relate to the level of schooling in which we are interested can be restated; at a later stage, we will have occasion to examine the question again and also other approaches which seem relevant to our study.

The simplest is the method of asking existing employing establishments to give information relating to the number of people they intend to employ. This can provide information for short-term requirements but is quite unreliable for long-term estimates, because employers are either unwilling or unable to estimate future employment since employing establishments of the future may not be the same as they currently are.[31]

Eugene Staley provides a second approach which seems straightforward and which he suggests can be used as guidelines for educational planners. He points out that a country setting up programmes for development should begin by making "a systematic analysis of its needs for qualified persons". These are defined as those who will have acquired the appropriate combination of skills, knowledge and personality traits that will fit them for occupational roles in the economic-social-political system".[32] Based on such analysis, priority should be given to educational programmes which will raise the quality and (to the extent necessary) the quantity of persons required for various occupations; but in order to

obtain a balanced output of qualified persons, he suggests two considerations: the first is that of maintaining close linkages between the education system and the 'employment system' as this "linkage" will facilitate immediate feedback in order to correct errors in forecasting; the other is making a continuous study of the changing requirements of the society in order to adjust the plans as necessary. Thus in planning, the content (i.e. curriculum) of education that will best fit the occupational roles, he advises that a matrix, or cross tabulation of occupations such as that in Appendix 2 be prepared. The usefulness of this matrix is to reveal the numerous items of skill requirements which are desirable for various occupations and consequently the educational requirement.

Staley does not attempt to predict requirements in quantitative terms, but stays with his suggestions for a general and "broadly applicable" curriculum. Any analysis, as such, he claims, should reveal that there are many common elements in a large group of occupations. Therefore, a properly designed curriculum of "general education" should be able to serve both in the current situation and as foundation for a wide variety of later occupational specializations.[33]

Educational Institutions and Development

Another prominent aspect of the literature on development pertains to educational institutions. Against the background of needs for occupationally qualified people, considerations are also given to factors such as efficiency, costs, equalizing educational opportunity for wide cross-sections of society,

and therefore what sort of institution can foster any or all of these.

Lionel Elvin for example, notes that no country really starts with a clean slate when designing new educational programmes for development, but either from an educational or from a social point of view, even where educational institutions "are deeply rooted in the way of life of a people, as long as a country aims at further development, these institutions may often seem to have outlived their usefulness and there are bound to be changes".[34]

The usual question is, what must be done about existing school structures? And, if they are to be replaced, what will their replacements be? Like other educators, Elvin notes that education systems largely reflect the structures of the wider societies of which they are part and that it is always difficult to change them, especially where the secondary schools were reserved for the children of high income elites. The reason is that members of the established high-status professions often fear that "a general opening of the doors" will reduce educational standards and inevitably reduce the advantage conferred on children from the more "comfortable" and "cultivated homes".

Yet, secondary schooling is the level at which most governments aim when they wish to effect changes and promote both occupational and social mobility; or widen opportunities for a great majority of different social classes with differing backgrounds, aptitudes, and expectations. Elvin following

Lewis (1961) suggests that attention should not be given to separate primary schools at the expense of secondary schools because this could hamper development. He therefore recommends changes in the structure of secondary schools along comprehensive lines, and suggests that one of the following would be suitable for developing countries:

a) Six years of secondary schooling with two cycles of three years each, following primary school.

b) Four years secondary schooling following eight years of primary schooling.

His rationale is that in view of available finance, it should be more feasible for developing countries to give "some" secondary education before trying to get "everyone" in primary school for at least eight years; but he concedes that circumstances will vary according to the country in question.[35]

When we review the international situation, we find (with some variation) that during the decade of the '60s, a number of countries had either changed their school structures or modified them in some way in order to further their national aims, (considered in a social or economic context). Sweden is perhaps the most outstanding example as that country's "comprehensive school reforms" are said to have sustained the progress of development because the curricular changes were related "to the world of work".[36] The English "comprehensive schools", in many respects, are examples of educational changes which were effected for similar reasons.[37] The same is true of other European countries which opted for the comprehensive school framework, or for other modifications in

their original school systems. Greece attempted school reforms (1959) along comprehensive lines;[38] France effected reforms (1967) to remove regional inequalities and raise the school leaving age so as to align this with industrial requirements.[39] Similar reforms were undertaken in Belgium with a view to providing "equal opportunity" and to relate schooling directly to community activities.[40] In Russia, the principle of "polytechnization" which attached great importance to practical training in "productive" and "socially useful" work for all high school graduates, was the basis of that country's school reforms in the late 1950s.[41]

In the developing world however, the desire for educational changes was not always expressed along the lines of the European schools. For example, Dudley Seers suggested that the preparation of professional skills, should be centered in "elite secondary schools" recruiting students from all classes in the society. Such schools should inculcate the discipline, and emphasize the technical subjects which would be necessary for development. With reference to Trinidad/Tobago, he suggested that the products of these schools could be recruits to a specialist corps in the petroleum, manufacturing and agricultural sectors, and also to the civil service.[42] On ther other hand, many countries opted for institutions outside the formal school system for the purpose of producing personnel for their emerging industries.

For example, India urged vocationalization at the secondary level through its Education Commission (1964-1966).

Nigeria's plans (1966) called for a system of vocational-technical education to be linked to industries which would assume more responsibility for training. In Latin America, special organizations were adopted to promote occupational training for the age groups 14 to 18 years of age. These are represented by SENAI in Brazil; SENA in Colombia; INCE in Venezuela; INACAP in Chile and a few others.* Most of these institutions are governed by boards representing employers, workers, and government ministries of education. As reported by Staley, they administer apprenticeship programmes; train the instructors; and undertake research. Staley is of the view that such organizations should be utilized for human resource development, because in terms of investment, they hold possibilities for more immediate payoffs than schools under the regular educational authorities. The point is, they are more directly related to life situations and the ratio of cost to effectiveness is quite high by comparison. Furthermore, the fact that they provide the immediate "linkage" between formal education and the employment system, and with other relevant institutions and agencies is something that should be sought after and planned for.

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*SENAI = Servico Nacional de Aprendizagem Industrian (National Service of Industrial Apprenticeship); SENA = Servicio Nacional de Aprendizaje (National Apprenticeship Service); INCE = Instituto Nacional de Cooperacion Educative (National Institute of Educational Cooperation); INACAP = Instituto Nacional de Capacitacion Professional (National Institute of Occupational Training). Staley, 1971: 160 - 163.

Educational Change: Some Aspects and Theoretical Views

In the previous section, we noted that if countries are thinking in terms of development, they will make adjustments to their education systems; some of the reasons for this have also been noted particularly that relating to equalizing opportunity. But whatever the thinking, one of the most pervasive aims for educational changes seems to be that of making the system a device for effecting social change, because in a broad sense that is what development implies. Put another way, what is wanted is social change and that change will be in a desired direction. Adams and Bjork have shown that over the years, educational changes came in "fits and starts", and were largely the result of fortuitous circumstances; but since countries like Japan and Russia have consciously used education to build "new social structures", there is every likelihood that underdeveloped countries will emulate them and "link their education systems instrumentally" with their national objectives.[43]

Now, whatever changes will be effected will depend first on what a particular country hopes to achieve, and secondly on the limits of its resources.[44] But because the education system is "a system" and is like any other piece of social machinery which uses certain processes to achieve given ends, the belief is that it can be manipulated in order to achieve specific objectives, since it is possible to analyse it and to say whether it is working efficiently or not. For example, the system can be employed to effect changes in the way different subjects are taught, and it can be judged by the effectiveness

with which it carries out the process. It may be used to develop new techniques (team-teaching, the use of educational television, and so on) with a view to raising the output of schools if that is the aim. Therefore, questions dealing with educational change in relation to national objectives will not only centre around ideas for formulating and implementing change, but also around the effectiveness of educational changes to bring about social change.

So far, there seem to be two different sets of ideas concerning the change process. One set does concern planning and implementing educational change; and, as a matter of fact, there are a number of theories behind educational change: theories which explain what strategies can be applied to change or adjust the various systems with a view to reaching objectives. The second set of ideas arise with an articulate minority of social scientists who question the premise that educational reforms (or changes) can resolve dilemmas that arise out of the nature of the economic and social system. While there is agreement that change in any aspect of education will have been calculated in order to achieve needed improvements in education itself or in the society, the view is that society and the economy will not adjust unilaterally to the education system. If there is to be an accommodation, the education system must make the first initiative toward adjustment; first of all by not being its old self, and secondly by adapting itself to new circumstances.

Exponents of the first set of ideas (or the theory) explain educational change in terms of models which use concepts such as change agents, strategies, and objectives of change.[45] The term change itself is used synonymously with innovation to imply new ideas and practices in school systems; but if the changes are sufficiently wide-spread to affect an entire education system, the term reform is preferable.[46] Netzer and associates suggest however, that changes in education are so basic and so ancient that they need no definition; they however talk of "innovation", diffusion of ideas, and of "improvement" as characteristic of educational change, and also of "alteration" as it applies to educational structures and processes, and to the achievement of some objective.[47] Alteration, they say, demands "a ... strategy if something new or different is to be implemented, or done. They further explain that an important element in strategy is identifying the forces that will support change and controlling those that will hamper the process.*

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*The reason for this is that not everyone will be amenable to change or will want the kind of education which, under the new circumstances, will have been designed to promote efforts toward achieving certain objectives or to serve the best interest of national development. (Netzer et al 1970: 11 - 15).

Some of the strategies employed to effect educational change therefore, are: 1) research into the new methods and new practices of education (as is characteristic of the United States and Sweden); 2) those which seek consensus on the part of the various groups (including teachers in the society) who will be affected by the changes; 3) political or administrative action at the level of parliament, state or other governmental bodies in charge of education.

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Educational change is therefore explained in terms of innovation, alteration, reform, or in terms of improvement and strategy. Now, according to Havelock, 'change agents' are those who institute changes, but Netzer and associates point out that there is little to be gained by pursuing arguments about who are agents since individuals' credentials are of less consequence than the changes envisioned.[48] To others, like Bassett, what is more important for understanding change is clarification of the objectives (as these can become vague and confused), and the action necessary to achieve them. Thus, in relation to development, he cites three kinds of objectives. First there are the broad societal objectives which may be expressed as "securing equality of opportunity for all citizens, or raising the technological efficiency of the nation". Secondly, there are "the practical steps that are necessary to achieve these objectives"; and thirdly, those which concern "the practices that will be followed at the level of the institutions" (schools) when working towards achieving the larger objectives.[49] Societal objectives, according to Bassett, are usually phrased in philosophical terms and are supported and explained by arguments about social values in the society concerned; thus countries make attempts to state national

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The classification for these strategies, as determined by Bennis et al (1969) are respectively: "empirical-rational", "normative-reeducative" and "power-coercive"; but in simpler terms, Philip Coombs summarises the idea by showing that "strategies must be founded in a broad consensus which embraces diverse political, social and educational interests and enjoys the authentic enthusiasm and loyalty of numerous leaders of these diverse groups". Coombs, Philip (1968) p. 167.

philosophies which shape their educational policies and practices. These are usually followed by legislation, or by policy statements, which in turn determine what will be done at the level of the institutions. The fact that there are educational objectives of three kinds according to this analysis, has an important bearing on educational changes. Hence, they (objectives) should be stated in detail in order to give clear and consistent direction to action, and equally clear and consistent criteria for judging success of the action taken.[50]

Examples of educational changes that would fit Bassett's analysis are outlined by the "Centre for Educational Research and Innovation" in their publications concerning the (seventeen) countries studied. The following are the categorizations:[51]

Category A

1. Comprehensive School Reforms
2. Integration of vocational training with general education
3. Democratization: i.e. increasing educational opportunity through greater access to secondary education.

These structural changes, to a large extent, redefine the objectives and fucntions of education systems in relation to the wider economic and social systems.

Category B - Organizational Changes

1. The development and implementation of new practices within the schools.
2. Changes in roles and role relationships e.g. between teachers and students; between teachers and administrators, etc.
3. Curriculum - changes here relate to the content of the curriculum, methodology, evaluation and organization of instruction.*

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*The curriculum refers to teaching plans, but the authors

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Despite theories of educational change, the other group of social scientists hold the view that schools serve society by reproducing the economic, social and political relations of society, and the only way these relations can be changed is through unforeseen circumstances rather than through deliberate or planned educational changes.[52] They argue that schools cannot reform society: a failure which is not attributable to the incompetence of reformers, but stems from inability to alter "a schooling system" that is functional to the existing society.

Many of these views are summarised by Henry Levin who argues that questions relating to the public's interest in education are often misleading as they tend to imply that "education is shaped in a deterministic way" by the conventional wisdom of politicians, academics, and the like, rather than by a set of larger controlling forces.[53] Levin attempts to show that systems of education 'correspond' to institutions in the larger society, hence significant changes can only be obtained in "educational functions and relations" by first making changes in the wider society.

Two concepts underlie Levin's theory: "correspondence" and "contradiction". The first suggests that:

> ...the activities and outcomes of the educational sector correspond to those of the society generally. That is, all education systems serve their respective

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suggest that in a broad sense it relates to Category A because its aims fall within the scope of the broader system's objectives. CERI/OECD (Paris 1973) Introduction.

> societies such that the social, economic and political relationships of the educational sector will mirror closely those of the society of which they are part.[54]

He then argues that if society emphasizes hierarchical relations and competition, or conversely, cooperative social and economic relationships, then schools will reflect these attributes. Levin recognizes that educational outcomes, or competencies, are consistently produced in line with those desired by the polity; but despite the consistency, he believes some change is possible, but not as a result of deliberate educational policy; rather it will be created by "contradictions" within the educational sector or in the wider society.

He cites few cases of these contradictions, among which is the phenomenon of the educated but unemployable, or persons with higher educational attainments than the economic system can absorb. This problem, says Levine, lies in schooling which functions as a selection device for jobs and as an agent of social mobility. As it requires constant expansion of enrolments at successive levels of the education system in order to absorb the social demand for education, this may produce highly educated individuals (presumably with useful skills) whose attributes do not correspond with those which are functional to the polity. On the other hand, the occupational sector may not have been expanding commensurately; therefore, those with higher qualifications may not be able to find "suitable" jobs; consequently, they are increasingly difficult to integrate into the traditional wage-labour systems.

The contradiction is therefore evidenced by increasing frustration and may find expression in antisocial practices (for example sabotage, absenteeism, drug addiction, etc.) as expectations and aspirations are thwarted. If however, the wider system (i.e. the polity) were to encourage practices such as greater worker control and other forms of participation, not only would this make absorptive capacity for the newly acquired skills possible, but it would avoid costly interruptions.

On the other hand, the schools would tend to place greater emphasis on cooperation in learning and so on; but in any case, the commitment to social change will have to occur prior to educational change.

In order to apply the correspondence principle, Levin draws up a "taxonomy" of educational reforms which he believes would match changes in the nature of work. This is done on the premise that were contradictions known (i.e. those which might arise between the demands of work organizations and the existing educational approach) then it "should be possible to predict the nature and types of educational changes that will emerge".[55] In other words, when changes in work organizations are known, then educational changes can be arranged to match them.

Both work reforms and educational changes are classified into parallel taxonomies which are called micro- or macro-changes; these are either of a technical or political nature. Specific work as well as educational changes are then placed into one of four categories in order to match possible changes

in work organization with those that will be required in education.[56] The taxonomies and suggestions are briefly described below.

Table 1 (page 79) illustrates the kinds of work reforms which he envisages could take place according to his propositions. Micro-Technical changes refer to those that do not require (organizational) departures from traditional practice; they are described as "cosmetic alterations", and are narrowly technical and individualistic in implementation. Macro-Technical changes tend to be wider in scope, and are applicable to groups of workers. They would cover entire organizations as they comprise changes which are often cast under the rubric of organizational development.[57]

Micro-Political represent changes in the internal decision-making process of the work enterprises, they relate to increasing worker participation, the conditions and relationships that surround jobs. Macro-Political changes are designed to give workers a greater measure of participation and control in the work enterprise as a whole rather than within their own work units.

The corresponding educational changes which can be effected in paralled fashion are, therefore, set out in Table 2 (page 80). The Micro-Technical are nominal "piecemeal changes" in schooling, (within the context of the existing organizational arrangements). The Macro-Technical changes are those designed to alter some aspect of the internal organization of schools and are intended for more highly

specialized and hierarchical approaches to school operations.

Micro-Political changes are "cosmetic changes" which entail adjustments in the internal governance of schools; that is with respect to who makes decisions about curriculum, personnel, instructional processes and so on. While Macro-Political changes are comprehensive educational changes relating to external governance and control of the schooling organization.[58] Such schemes seem to hold possibilities for linking specific occupational training with what Staley calls "the employment system"*; however, in the case of more general education, Levin concludes that the nature of educational responses will depend on the detail of work reforms. Accordingly, he suggests that it would be useful if educators review particular sets of work reforms which are under consideration in the wider society, in order to establish more precisely the possible educational adaptations that would be necessary to prepare school leavers for new jobs.

Summary

These reviews have revealed some of the ramifications of education and development and like the concepts considered previously, they show clearly that much thought has been given to the problem. But while there is agreement (tacitly or

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*Cf, Staley's suggestions above pp. 44 - 45

otherwise) that education has a role in development, there is no single or simple way to understanding how this is played out.

The most persuasive arguments in favour of education's contribution to development seems to be that of the economists who suggest that schooling increases the productive capacity of individuals and society. However, Vaizey, Zymelman, and others have pointed out inadequacies of the claim, not by disagreeing that education can and does contribute to development, but showing that whatever the contribution it is not necessarily made in the way other researchers conceive the process. Education enables individuals to acquire skills and other competences, but from the arguments, it is not only difficult to judge education's peculiar contributions to development by saying which comes before, education or development; it is difficult to ascertain the difference between education "as a necessary but not sufficient condition, and education as a necessary and sufficient condition for development". The further difficulty of quantifying the direct contribution of education is again apparent because so many other factors may be involved in the process.

The role of education seems more directly connected to preparation for industry, but the problems of employment direct attention to what kind or types of education and training are more appropriate in developing situations, and the relations that should be considered. The related problem of manpower forecasting shows there is no universally accepted

method of determining requirements. Reasonable accuracy can however be achieved over a short term or by adopting the practical methods suggested, but over long periods, forecasts can be hazardous. It is partly for this reason that both Parnes' and Staley's suggestions seem helpful.

With regard to education for industrial and social development - a large part of which is really occupationally oriented education and training - most countries seem to have opted for a comprehensive school structure, or have looked outside the formal school system to set up linkages with employment systems for this kind of training.

Finally, the question of educational change came up for consideration. Since part of the problem of development concerns equality of opportunity or other social questions, the reason for changing school systems are fairly obvious. But while much is expected from schooling, latter day opinion is that schools can do very little on their own to change the relations in the wider society. In the light of Levin's argument, formal schooling (of whatever type) may lead to personal dissatisfaction with current conditions and opportunities; these same dissatisfactions can provide incentives for societal changes if institutionalized means exist to meet new aspirations. In such cases, education would have contributed indirectly to change; and formal schooling would then be valuable in terms of the "contradiction" or "detachment" effect from the traditional environment, as well as the specific skills it inculcates;

but even so, it is doubtful that by themselves schools can initiate change.

We will now proceed to examining educational foundations in Jamaica and the recent changes to see where there are connections or departures from our last two sets of considerations.

TABLE 1

An Illustrative Classification of Work Reforms: Levin's Schema

I. Macro-Technical

- A. Flexible work schedule
- B. Reduced formality in communication and work attire
- C. Job redesign
  1. job enlargement
  2. job rotation
  3. better equipment
  4. technical redesign of task
- D. Changes in physical work environment.

II. Macro-Technical

- A. Organizational development
  1. new staff configuration
  2. regular meetings among staff
  3. open-door personnel policies with respect to personnel grievances
  4. revitalization through seminars, educational and training opportunities and sabbaticals
- B. Profit sharing and other incentive payment schemes
- C. Redesign of organizations

III. Micro-Political

- A. Job Enrichment
- B. Other forms of participative management (management consulting, workers' councils, etc.)

IV. Macro-Political

- A. Employee ownership
- B. Worker representation on corporate board
- C. Worker self-management

Source: Carnoy M. & H. Levin, op cit., p. 90

TABLE 3

A Classification of Educational Reforms by Organizational Changes

I. Micro-Technical

- A. New subjects
- B. Changes in instructional materials - different approaches to teaching, reading, purging textbooks of sex stereotypes
- C. Teacher training and retraining
- D. Multicultural and bilingual programmes
- E. Educational technology (specific application)

II. Macro-Technical

- A. Differentiated staffing
- B. Team teaching
- C. Open classrooms
- D. Mastery learning
- E. Educational technology (generalized use)
- F. Work-study
- G. Flexible modular scheduling

III. Micro-Political

- A. Changes in internal governance of classroom or school in respect to students, teachers and administrators
- B. Greater responsibilities to students in operation of instructional processes - peer teaching, for example.

IV. Macro-Political

- A. Community control
- B. Educational vouchers
- C. Deschooling policies
- D. Factory-run schools

Source: Carnoy, M. & Levin, op. cit., p. 98.

PART III

EDUCATION AND DEVELOPMENT IN JAMAICA

CHAPTER FOUR

THE SETTING FOR CHANGE AND DEVELOPMENT; EDUCATION BEFORE THE '60s. AND THE PLANS FOR EDUCATIONAL CHANGE

For those who might be unfamiliar with the Jamaican situation, the following brief accounts of the island: its setting, history and society, will perhaps be helpful if only to place in perspective some of the main features relating to its development.

Jamaica is a Caribbean island or one of the West Indies, depending on which terminology is preferred for its description. As one of the Caribbean bloc of countries whose discovery and colonization began in the late fifteenth century, the island has shared much of the same historical experiences as all the others and bears similar imprints (characteristic of developing countries) which have been left on all societies in the region.* All these islands have mainly been agricultural countries, but since

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*This is not to suggest that the Caribbean territories are undifferentiated units. Each one is a country - whether a colony or an independent state - having its own set of social and economic problems as well as other peculiarities which provide the setting for its own pattern of development. However, in the course of their history, the common forces of colonization, plantation life and its attendant slave society, emancipation and later population movements - to which they were all subjected - have left common imprints upon nearly peoples within the region.
The West Indies, to which this study refers, is the English speaking or former British West Indies - now termed "Commonwealth Caribbean Territories". These are: Barbados, Jamaica, Trinidad/Tobago, The Leeward and Windward Islands, with Guyana and Belize on the respective mainlands of South and Central America. These territories have always been considered as one bloc under the British influence. See e.g. Augier, et al (1960); Mintz, Sidney; "The Caribbean as a Socio-cultural Area" in Horowitz(1971: 17 - 46); Lewis, G.K. (1968); Parry and Sherlock (1960); Smith, M.G. (1960).

World War II, nearly all have been attempting to diversify production and engage in some form of industrial activity, primarily for import substitution and to increase employment for their respective populations.

Geographically, Jamaica falls within the Greater Antilles group of the West Indies and lies approximately ninety miles south of Cuba within the latitudes 15° and 20° north and longitudes 75° and 78° west.

The island has an area of 4,411 square miles consisting of coastal plains (particularly to the south), and intermontane valleys which gird a central east-west mountain formation rising to over 7,400 feet above sea level. The more important physical features include: (1) numerous rivers and rivulets which support extensive cultivation of the islands staple crops; (2) the highlands, which have traditionally been under diversified farming, perennial cropping and much forestry; (3) extensive stretches of beaches - particularly to the north - where the tourist industry is currently concentrated.

The population (1977) was approximately 2.1 million people of mixed races and religions but the distribution is very badly skewed because of the tendency toward greater concentration in the urban areas. More will be said on this subsequently, but it should be noted that concentration in the cities often reflect on the provision of educational facilities as well as job opportunities, particularly for the younger members of the labour force.

Although set in the Caribbean, most of Jamaica's international

links were always with Britain, the United States and Canada rather than with other colonial or excolonial territories. In fact it has been the lot of these islands that during colonization, by the European powers, they were ideal trading posts or the stepping stones to power on the mainland - in this case South and Central America. Even now when most are independent, the original "separateness" tends to persist; however, greater cooperation is being sought through organizations such as a Caribbean Examinations Council, and in the wider economic sphere through a Caribbean Common Market and efforts at forming Customs Unions.[1]

History and Change

Following its discovery (1494), the island was annexed to the growing Spanish Empire of the "New World". It became a British possession by conquest (1655) and was ceded to Britain in 1670.

Under the British, as metropolitan head, and an elected assembly as the local government, Jamaica became a strategic Caribbean colony and the largest and richest supplier of sugar in the New World.[2] But, in evolution and development, the island witnessed a series of crises and constitutional changes that persisted until its independence in 1962. It was for long a slave plantation colony, but after emancipation (1834) and finally the abolition of slavery (1838), the island slipped into decline and did not recover until well into the twentieth century.

In the interim, its development was retarded by traumatic riots (1865), dissolution of the Early Assembly, and Constitutional changes which led to instituting " Crown Colony rule" (1866).

New developments were attempted as of 1866 under Sir John

Peter Grant who became Governor, but political reforms that were attempted and the new crops which joined sugar did not halt the declining importance of the colony. What might be called a hiatus in the sequence of development, existed until 1938 when labouring class disputes, followed by Commissions of enquiry, and agitation for self rule gave birth to a new Constitution and Responsible Self-government.

Adult suffrage was ceded to the Colony in 1944, but meanwhile, the emergence of political parties, labour unions and social groups such as the Jamaica Welfare Commission - with middle class leadership to support them - dramatised the value of indigeneous leadership. From these beginnings came Representative Government in 1959; a brief experiment with West Indies Federation (between 1958 - 1961) and finally independence in 1962. With these changes , various ministries of government were established and national policies for development,which included education, were formulated.

The Society

Every society, it is said, is a product of the particular historical forces that give it shape and form.[3] The fact that the Aborigines of Jamaica were eliminated before the British took possession meant that the society that was formed during the eighteenth and nineteenth centuries was comprised mainly of immigrants who were either plantation owners or peoples brought in to work the sugar plantations.Therefore the current society is said to have its roots in these earlier groups.

Thus, the various descriptions, of early Jamaican society, show that at the high point of its formation it consisted mainly of Europeans and Africans - the former were the owners of property and the latter, mostly slaves.[4]

These groups were differentiated by a rigid two-tier stratification structure in which 'social class' was coterminous with 'race', civil and political freedoms, with cultural subordination and with property ownership. Thus the relatively small European population formed the upper or dominant class and relied on coercion to enforce compliance from the larger slave labouring group which formed the lower class. In time, the symbols of white supremacy, and their closeness to metropolitan Europe, all reinforced their claims to a monopoly of property and to localized institutional power. The beginnings of a middle class (although evident during slavery) did not take shape until the ending of slavery and during the post emancipation period when the polarized two-class system was transformed into the pattern of a continuously distributed stratification system comprising various groups of professionals and technicians and when multiple status criteria such as occupation, education and colour began to emerge. Middle sectors were in fact to be found during slavery in racially mixed groups ("the free coloureds" as they were called) who were produced by black-white parentage, and in the "freed slaves" who were liberated before emancipation. However, they were more marked as a 'social class' after the abolition of slavery.

The social picture became further complicated during the post emancipation period by the presence of minority groups whose entry to the island changed the society's configuration but did not

alter the status symbols of the earlier period. These groups, incidently, consisted of East Indians and Chinese who were brought in as indentured labourers to fill the vacuum created on the plantations following the departure of the ex-slaves. A second set, comprising Jews, Lebanese and Portuguese, arrived later; but along with the Chinese, these left the pursuit of agriculture and moved into the island's commercial sector.

These historical events, and the factor of intermarriage, actually produced a racially mixed society /see appendix 1(B)/ which, Caribbean sociologists (or most of them) claim, has retained structural forms close to the nineteenth century model.* Thus, Henriques' version of the society is a colour-class system in which there are three sections or classes, each of which is again subdivided into segments. He identifies a small upper class which contains higher white, and lower fair segments; a middle class with higher and lower coloured segments and a lower class which is mainly black. /See figure 1, (p. 88)/ [5]

In another study of the society, M.G.Smith identifies three social strata, but makes concepts such as "cultural institutions", society itself, and "the plural society" central to his analysis and description. He defines the first as "standardised modes of co-activity forming clusters or subsystems", while society is a "territorially distinct unit with its own governmental institutions."

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* Only that the bipolar class structure has changed to a multi-dimensional stratification system in which individual status is now defined in terms of complex educational, income, occupational and colour factors. See e.g. Smith, M.G. (1965); Stone, (1972); Henriques (1976)

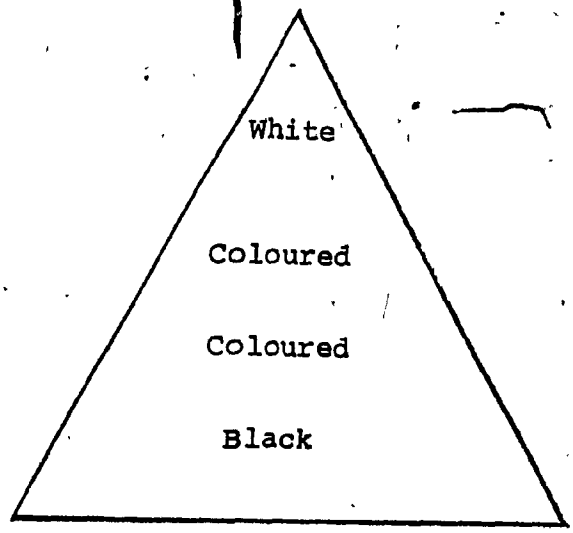

Fig. 1

Henriques' Colour-Class Pyramid

Smith therefore argues that:

> The basic institutions of a given population are the core of a people's culture, and since society consists of a system of institutionalized relations, a peoples institutions form the matrix of their social structure.[6]

Then he goes on to say:

> the three distinctive institutional systems characteristic of Jamaica ... define a society divided into three social sections: the white, the brown and the black; this being the order of their current historical dominance and the exact reverse of their numerical strength.[7]

Therefore, according to the analysis, we not only have a three-tiered society defined by colour, but a number of subunits or pluralities (defined by cultural institutions) comprising the

larger society.*

In conclusion, he shows that at least ten institutions characterize the different strata or subsystems in Jamaica. These range from education, law, kinship, economic institutions, occupation and so on, to informal groupings. As for education, he says this institution differentiates the groups most sharply. For example, the small dominant section of the society consists mainly of university graduates, entrepreneurs and the like, while members of the middle section are normally secondary school products, and those of the third section are mainly graduates of primary schools.[8]

The plural society theory, it is true, draws attention to the complex nature of the society, but others (e.g. Gordon Lewis) have shown that as an explanation for "the complex interaction between class, race, and culture, it fails to fit observable facts in West Indian Society", because the groups are not held together by force as Smith implies, and there is far more integration than he claims. For example, over the years, there has been much "creolization"; that is, the process by which marginal groups who had hitherto been kept outside the national community, gradually incorporate themselves into the emergent Caribbean cultures. Moreover the very fact

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* The 'plural society' as Smith explains, is "... a unit of disparate parts which owes its existence to external factors but lacks a common 'social will'". Therefore in the absence of such a 'will', it is force, or the authority structure (i.e. the government) and controls inherent in the economic system, which holds the groups together; but beneath this, the cultures and value systems of each (group) are quite different (Smith, M.G.; 1965:VII). Speaking of Jamaica, he says "The integration of the three sections, as identified, has never been very high; and for cohesion Jamaica has depended mainly on those forms of social control implicit in the economy and explicit in government" (p. 175).

of having to work side by side and to strive for similar goals, has forced the various groups - Indian indentured labourers, Negro creoles, Chinese retailers and so on - to accomodate each other and move toward assimilated patterns of existence. Similarly in the economic sphere there have been"break-throughs" of social rigidities as all interests sought betterment through education and occupational mobility. Again, there has been less endogamy among the groups; and greater cross-fertilization has taken place between, and across, classes which correspond to each other in the different hierarchies. In like manner, relationships are being built out of common economic interests, political affiliation and plain social intercourse.[9]

All this is not to say there are no 'extremes' or groups within the society among whom differences are clearly marked. There is a group or 'cult' in Jamaica for instance, which calls itself Ras Tafari; the group presents itself as a 'protest organ' or an 'anti-establishment' movement as far as society is concerned. The cult (of Ras Taffari) identifies itself with the poor and the so-called 'oppressed' of the society; has denounced and repudiated almost every aspect of Jamaican life-style and established a different set of values for its members. But while the movement is an integral part of the syndrome of poverty, its protests are directed as much against the social system as against inequality in material conditions.[10]

Another group, which could be regarded as 'an extreme' in Jamaican society, is comprised of the few'plantocrats' who represent a fading aristocracy. More recent arrivals to this class are

a few would-be 'snobbish' Jamaicans who try to retain the old nineteenth century order even though it has changed. However, the majority of Jamaicans do not think of themselves as existing on a continuum between the two positions just outlined. Many regard themselves as 'ordinary Jamaicans' and will define themselves as members of that most elastic of classes - 'the middle class'. In a recent study for example, Miller shows that when the stratification criterion is applied to the society, one could arrive at four strata which he terms "upper, traditional middle, emerging middle and lower" respectively.[11] What the study points out are the changing patterns in the society; the "emerging middle stratum" for example, is really a recently formed artisan class and its composition is not confined to any one colour or group. Miller's data also show that the middle classes comprise mixtures of colours and races - for example, Blacks, Chinese, East Indians and those of European ancestry - while the upper class of plantation fame is almost non-existent. In like manner, Lewis sees the emergence of an "urban bourgeoisie" of mixed ethnic and cultural character comprised of new groups of immigrant Jews, Chinese, East Indians, as well as creolized Negroes.[12]

What we find in recent times, therefore, is not the nineteenth century model, but a society in which there are great disparities and much inequality. This is largely an economic question; for instance, there is a serious unemployment problem which governments, since the 1940s, have been trying to redress by increasing industrialization; but the growing industrial sector has not been able to absorb the surplus labour which internal migration

brings to the cities. We also find that the majority of the unemployed are "Blacks" because they are the most visible and come from the largest sector of the society. Furthermore,Jamaicans use a variety of criteria to rank themselves and others - occupation (usually related to education) is a dominant criterion, for instance. Many also evaluate comsumption habits to yield a complex and flexible series of social stratifications,but not in the way they vary as in the American Black/White model;the multiracial "one-nation model" society is preferred in public and is one which the various governments would like to see developed - Jamaica's national motto, for example, is "Out of many, One People". However, behind all what appears to be controversial is the fact that as a developing country Jamaica has to fashion a harmonious society if it can. Equality, such as the politicians hope for, is a 'utopian ideal' which may never be possible,but it is possible, in the long run, to abolish group privileges and the traces of ethnic prejudices which are already disappearing.The move to equality, however, calls for eradication of urban rootlessness as well as the existing pockets of rural poverty. In a very real sense, these are some of the problems which the country's education system directly or indirectly faces. How it can help to solve them will be a matter for much research.

EDUCATION BEFORE THE '60s

Jamaica's public system of education was first thought of in connection with emancipation. It was part of a larger question, however, because about the same time, Britain had plans to subsidize

her own schools and schooling for the colonies came in for consideration as well. But if the basis for such plans was national development, West Indian legislators had not yet begun to realize the value of education for such ends. Therefore the circumstances of the time led the West Indies into a separate line of educational development.[13] For Jamaica in particular, the responsibility for education was not part of the legislators' idea of governing the freed people; they saw it as matter for the churches as it had been under slavery. Thus when the British government made a grant to establish public elementary schools in the West Indies the funds were largely administered through the churches.[14] The arrangements as they were, epitomised the 'system' that was later to develop (that is to say, a partnership between government and the church), and they established a pattern which has never really been changed. In fact the arrangements meant the acceptance of voluntary organizations as instruments of administration and indicated what interests would feature in providing education for Jamaica in future. In order to show how the system evolved, the description of education before the 1960s will take the form of a short historical review. Our emphasis is secondary education, but part of the comments will concern primary education because, at nearly all stages in Jamaica's early development, this was the only available form of public education.

Elementary Education

In terms of government's considerations, primary (or elementary education as it was called) was, from the outset, a mere welfare service to be carried on as cheaply as possible. Moreover,

the system was dominated by constant controversy between churchmen, who wanted education to serve missionary purposes, and secular groups who saw schooling as an opportunity to train students for agriculture. The latter position, quite naturally, drew the ire of the clergy who believed such practices would lead back to the plantations and the old days of slavery. In the face of the controversy, schooling hardly got beyond the three Rs, and learning by rote. According to Shirley Gordon, teaching methods were so archaic that even additions to the curriculum (e.g. geography, history, Bible knowledge) were treated as "information to be learnt by heart and repeated verbatim".[15] This orientation remained with the system throughout its early stages of development and persisted well into the 1940s.

On the other hand, the problem of teacher shortage led to experiments with "pupil teachers", payment by results, and to importing qualified teachers from England. However, very few improvements were experienced despite these measures; for one thing, the importation of teachers had to be suspended as the venture was expensive, and Britain had stipulated that those who accepted overseas posts should refund the costs of their training. This meant the churches were thrown on their own reserves to provide local training colleges for teachers; but even so, the system suffered as it were, by the "bookish nature" of studies, and from continued experiments with pupil teachers which helped matters very little.

The most important step taken to improve primary education at the time, was the sending of Commissions from England to investigate the system and make recommendations for its improvement.[16] The Commissions pointed to a lack of clearly defined aims and goals

which could give some kind of orientation to the elementary system, but their recommendations were often biased according to their respective points of view. For example, the Reverend John Sterling made it explicit that education should be "... morally directed and reformatory". He did not come to Jamaica to see the conditions and many of his conclusions were based on false assumptions about "indolence, vagrancy, contented ignorance" and the like.[17] However it appears that he was the only Commissioner who thought of an "integrated system" to educate children from 10 to 18 years of age and suggested that it was workable in the island.[18] Others, like Lumb, talked about a 'dual system' partly run by government and partly by private enterprise, in order to effect certain "economies". There were also recommendations that elementary education should serve agriculture and citizenship, but exactly what long-term measures could make the system more efficient remained a problem. Over the years, therefore, education at the primary level, or let us say 'the system of education' at this level, had not, in general, been a "good one". Since 1900, various governments became more and more responsible for its operation, and they made efforts to get more children in schools; but as Vernon pointed out, in regards to the expansion of facilities and the method of teaching, "... it was difficult to do much more than keep up with population growth"; and comparing primary education in Jamaica with some of the other West Indian islands in 1961, he said, "... one cannot avoid the conclusion that it was badly neglected here by the pre-1944 administration".[19]

Secondary Education

The growth and purpose of secondary education followed a different course (from primary) for a variety of reasons. Firstly, a number of bequests were made to endow schools for purposes of educating boys whose parents could not afford to send them to England for an education. Secondly, the churches were interested in secondary schools for training their clergymen, and other personnel. Thirdly, these schools have always had better quality teachers and smaller classes. Last, but perhaps most important, they were means of social and occupational mobility for those who aspired to the posts of English colonial professionals with whom they could compete, or otherwise emulate.[20] Thus, the Baptists could lay claim by secondary education for "... bringing the coloured inhabitants to an equality of social rights with the most favoured sons of Britain".[21]

However, secondary schools were criticised on three counts, (1) exclusiveness; (2) being expensive; (3) curriculum. As expensive academies, or boarding schools, some of them were virtually inaccessible to large sections of the community.[22] On the other hand, scholarships, intended for a few elementary children to get secondary education, did not always serve those children as elementary school teachers were not familiar with some subjects, e.g. Latin, which were included in the preliminary tests for the awards.[23]

On the subject of curriculum, criticisms were always directed at their failure (i.e. secondary schools) to adapt to the circumstances and values of the West Indies. According to Shirley Gordon (1963:240)

the standards in some of these schools were "not high" initially, and having adopted a curriculum that was "classical", few of the pupils had sufficient general education to make a successful study of the subjects, (e.g. Latin) or more importantly modern scientific studies which would be suited to the needs of the West indies. She also claims that the situation was hardly any different when the syllabuses were modified (by the Cambridge Examinations Syndicate) to include a wider range of subjects.[24] The problem, it seems, was not really with the subjects; those included were no doubt suited to the cultural needs of England and with modifications could be made to suit the West Indies as well. But the approach to studies seems to have been too 'bookish', even in the case of practical subjects which are more appropriately learnt by experiment and observation. Despite what might be said however, secondary schools - at least the better ones - were far superior to primary schools, and the certificates gained through the overseas examinations became more and more the passports to respectable employment. Moreover, for the more ambitious students who sought advancement in the legal profession or in medicine, the examinations provided the matriculation requirement for entry into foreign universities. In such circumstances, as Professor Figueroa points out, private secondary schools always played their part, very often not on behalf of the elite or the privileged alone, but for many who, without them, "would have lacked the opportunity for advanced education".[25]

The first 'real' attempt by the Jamaica Government to participate in the provision of secondary education was late in the nineteenth century when the Jamaica Schools Commission was formed. But then it was a matter of monitoring operations, or the ad-

ministration of secondary schools, rather than full participation, in the sense that the government would actually provide schools for this kind of education. However the Commission concentrated on expansion and sought to upgrade many of the endowed schools to secondary status.[26] It also tried to integrate the primary and secondary systems through a scholarship scheme, but the effort was not successful - the poor quality of teaching and lack of response on the part of the former meant withdrawing about half the scholarships and concentrating instead on 'island scholarships' for higher education.[27] The Commission did meet with some success, but this was largely due to cooperation from the churches with whom it was always working despite its terms of reference; that is; as a statutory body operating on government's behalf. The fact that the bishop of Jamaica lent his support is indicative of the continued orientation of the secondary system.

In time, however, the Commission persuaded government to participate in the expansion and as a result Cornwall College was established as the only government high school; but even so, government's interest was not one of solid partnership with 'church' or private concerns; its attitude (or so it seems) was that secondary schools could be provided by the churches and the fees charged would be enough to meet their expenses. Because of this attitude, Gordon notes that the schools might not have termed themselves "middle class", but "remained what they did not claim to be in principle - the educational preserve of those who could afford them."[28]

Expansion of secondary schools, though limited, continued in the twentieth century as demand for education grew; but in actual

numbers, the more recognized schools - up until 1960 - did not exceed forty. At the same time, the Cambridge Examinations held pride of place for employment, for the scholarships that could be gained for higher education and for social mobility reasons; thus, the schools applied their energies to obtaining as many certificates and at as high a level as possible. But on the other hand, when considered against development needs of the island, not enough economic skills were being produced, nor were the limited number of schools serving as wide a cross section of the society as they should; therefore as would be expected, some changes were inevitable before 1960. The following section outlines the more important of these.

Attempts at Changes Before 1960

At the general elections of 1944, one of the newly formed political parties (the Peoples National Party) called for social changes in its manifesto. Such changes, it was believed, could easily and speedily be effected by expanding the facilities for education and ensuring its (education) availability on the basis of merit rather than wealth. When this party came to office in 1957, it based its educational policy on three principles. The first was universal primary education between the ages of 7 and 11 inclusive; the second, that the system should provide educational opportunities to those children who possess special ability in order that they may fill the needs of the community for trained people in industry, agriculture, trade, commerce, the professions and in special services that the country required. The third principle was that the educational opportunities provided by the

government should be open and available on the basis of genuine equality.[29]

From the point of view of the Government's interest, therefore, three sets of changes were effected. First, the Common Entrance or the Eleven-Plus Examinations were introduced in order to allow more primary school children - and by the same token poor children - to get a secondary education. The examination was administered to all who had the potential for secondary education (and there are evidences that awards were in fact made to a number of children from poor homes) but the method of selection presented problems. For example, it gave overwhelming advantage to students who were already in secondary schools, or those (from private preparatory schools) whose parents could easily have afforded to pay for their secondary education. The method also highlighted the difficulties of providing automatic transfer from one sector of the education system to the other and showed clearly that wide separation existed between primary and secondary schools. In Table 1, for example, we see where the advantage lay for those who hoped to enter the secondary system; here a number of places appear to have gone to students in the primary schools, but in the final analysis, only 5.5 per cent actually gained access to secondary education. This, in fact, was the case between 1958 and 1962 when the selection process was adjusted; but even with the adjustments, it has remained one of the most controversial aspects of the secondary system. This is considered at greater length subsequently, in the chapters dealing with educational changes during the 1960s and '70s.

TABLE 3

Free Place Awards to Secondary Schools - 1959

	Free Places Awarded		
	In Kingston and St. Andrew	In Other Parishes	Percentage of Successful Candidates
Primary Schools	320	446	5.5
Secondary Schools	313	134	29.5
Preparatory & Private Secondary	459	83	28.0

Source: P.E. Vernon "Selection For Secondary Schools in Jamaica" Report to The Minister of Education, 1961, p. 56.

Another major change before 1960 was "grant-aid". This means that the majority of secondary schools came under government's financing to the tune of approximately 90 per cent of their operational costs. Some, of course, maintained their independence and provided a small number of scholarships for children whose parents belonged to the same denomination, or church, connected with the school. However, increasing financial difficulties forced them - albeit unwillingly - to seek government grants, and in return to submit to inspection for efficiency and admission of all but one or two per cent of their pupils on the basis of ability, as judged by the Common Entrance tests. Those with established traditions naturally regretted the removal of autonomy in the choice of pupils, and their staff complained of difficul-

ties in bringing children of primary school background up to the standard of the middle class fee payers.The changes remained however, despite this attitude.

The other area in which changes were effected is technical education. Prior to 1960, there was but one recognized technical school - the Kingston Technical School - and four rural institutions (known as Practical Training Centres) engaged in the teaching of practical subjects, and agriculture. Two of the latter were converted into technical schools while the building of three others was proposed. Reference must also be made to the College of Arts,Science and Technology (CAST) which was built in 1958 for continuation in technical education. The College offers courses to mostly adult students from a widely ranging curriculum which covers: (1)Engineering - mechanical, electrical, construction; (2) Science - pharmacy, physics, chemistry, biology, mathematics; (3) Commercial and Business Studies; (4) Industrial Management (middle order) applicable to catering in hotels, hospitals and so on. The technical schools on the other hand offered a four year course to students (from age 13+ to 16+) covering a measure of general education, applied science and a craft. Girls were admitted and thier instruction made relevant to commercial, secretarial, nursing, pharmacy and other careers. Interestingly enough, "technical education" in Jamaica always held lower prestige than grammar school education, but as the social climate changed, primarily because of the spread of manufacturing industries, and the high wages paid in the bauxite-alumina and other engineering industries, demand for technical education has grown. In fact,

grammar schools had begun to offer technical-commercial courses with a view to widening their curricula. A number of students had also began entering in these subjects for the Cambridge School Certificate examinations; but in reality many such studies were little more than "make-up courses" for most of the students who failed to cope with the academic subjects.[30]

Finally, some mention should be made of the provisions made for primary school pupils who had no chance of getting into a secondary (grammar) school or a technical school, under the arrangements between 1957 and 1960. These could take the Jamaica Local Examinations (from age 13 to 15 years or later) which carried some weight with prospective employers and served as qualifications for entry to teachers' colleges, the police force, and in some cases, the nursing profession. By way of training for the world of work, most primary schools provided rudimentary woodwork and domestic science (cookery) classes, as well as elementary agricultural instruction. In other cases , "senior schools" were set up in populous areas to take pupils from 12 to 15 years into pre-vocational courses. The arrangement compared with the British 'Modern school' in the sense that selected students could work towards the General Certificate of Education in these schools, and if they showed improvement, could transfer to a grammar school. About 15 per cent of the age group could qualify for some form of work in senior schools, but this left a majority for whom there was nothing better than graduation.

To summarise this section then, there were really two separate systems of education in operation up to 1960, and each had its origin in the class structure of the society. One (system) pro-

vided a route through primary schools but it terminated at age 15. At this stage the student either left school or took private lessons for the Jamaica Local examinations; although (it should be noted), this was not necessarily an end-on process to the primary school. Sometimes a student who started in primary school would switch to high school but the transfer was often impeded by the fee-paying nature of the secondary system or by problems of preparation.

The other route was through (a system of) private preparatory schools to high school and then to university. The changes of 1957 no doubt made a great difference as they opened the way for more students to get secondary education; but against this must be set the knowledge that between 1958 and 1960, more than half the number of scholarships were allocated to students whose parents could easily have afforded the secondary school fees. Another factor of major social importance was the discrepancy in the subsidy provided for secondary and primary schools. Up to 1960, for example, government's allowance to secondary schools was J$60.0 per student, as against J$4.0 in primary schools.[31] Another is that although the Common Entrance awards accelerated what we might term the rate of potential acculturation between the lower and the middle strata of the society, it did not disrupt the social stratification structure, for both systems went on as they had before. We could say that the system of awards provided a means of social recruitment but it involved no restructuring of the society.

It is against the background of tradition and attempted changes, that the plans for reorganization must be seen. They were formulated in order to restructure the existing system which the educational authorities labelled "colonial" and which had to be changed in view of future developments planned for the island. Thus the "New Deal for Education" would shift the emphasis from colonial policies to those more distinctly Jamaican in orientation. The new emphases would therefore reflect a change in philosophy, objectives and policy. The new philisophy was: "Opportunity for the best education must be open to every child irrespective of social class or background"; and the ultimate objective "to train manpower". Hence it was necessary to align the educational plans with those of the "Five-Year Independence Plan" where, among other things, it is stated that without an effective social policy:

> ... measures for economic development may fail to attract the degree of interest and cooperation of the people with whom it is necessary to attain economic growth for the nation.[32]

The alliance of ideas in both documents suggests that education would be the means of promoting economic and social development. Thus the following were specific objectives:

1. Getting away from a system which emphasized a stratified society; inhibited social mobility; and condemned school leavers to unskilled occupations and low incomes; hence the policy to "create equal opportunity for all", both in the school system and in the wider society.

2. Creating manpower in order to satisfy the needs of industry, commerce and agriculture. Thus the education system would be the principal agent for skill training and training in other competence required for the purpose of 'development'.

Within the larger framework of the plans were the following objectives:

1. Free secondary education for all students,
2. Compulsory education between ages 6 to 19 years,*
3. A totally integrated system of education,
4. An adequate supply of teachers,
5. Committing the education system to economic development and social change - in particular gearing secondary education to human resource development by emphasizing technical-vocational education, skills training and providing other training that would serve industry and commerce. Secondary education was the immediate area for 'new' development in the programme as:

> there was ... urgency for making a quick impact on quality at the first cycle (secondary level) for the young adolescents going into the job market ... and also (for) increasing and improving the flows into the second cycle institutions and ultimately into the economy.[33]

The length and details of the Educational plans cannot be presented, but the summary of essentials which are relevant to this study centre around the following:

A) Definition of Educational Goals

Through parliamentary legislation, definition of the goals was given as:

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*According to current educational policy in Jamaica, 19 is the age limit for attending secondary (high) school, i.e. Government subsidises the education of students up to this age. Both the New Deal and Education Thrust make note of the fact that free education would be provided for students entering schools from age 4 to 18 years. (New Deal p. 6; Education Thrust p. 20)

1. (The necessity) to reorganize and reorient the educational system so that it may fit in more closely with the social and economic goals of the country.

2. Integration: that is, restructuring the school system into a coherent whole.

This was phased with a view to completing the process by 1980. The first phase would cover the period 1966-1970; the second 1971-1975, and the third 1976-1980. By the end of the final period, the educational pyramid should be in four tiers; but meanwhile, the public school system would be restructured into grades as follows:*

Early Childhood Education	-	Ungraded below age six
Primary Education	-	Grades 1 - 6, Age group 6 to 11
Junior Secondary Education	-	Grades 7 - 9, Age group 12 to 14

Second cycle Secondary Education

a) General	-	Grades 10-12, Age group 15 onwards
b) Technical	-	Grades 10-11, Age group 15 onwards
c) Trade and Vocational	-	Grades 10-11, Age group 15 onwards

B) The Junior Secondary School

It was planned to introduce these schools (a) to provide secondary education for more pupils (see 1 and 5 above), and eventually to use them as the first cycle of the secondary system in the structural reorganization planned for high schools. Thus it was programmed that all children at age 12 or grade 6 would move into the (junior) secondary system on a non-selective basis (i.e. without having to write the Common

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*New Deal p. 44.

Entrance examinations). Students would remain at this level for a three-year course and then proceed to the second cycle; the test for transfer would be set at age 15 and selection done by assessment of aptitudes for technical, vocational or grammar-type education.

The rationale for introducing junior secondary schools

A number of reasons were given but the following were the more prominent:

(1) They would correct the imbalances created by the Common Entrance tests.

(2) They would improve the educational situation by bridging the gap between the "two systems" of education which was inadvertently created; they would therefore be advantageous in improving the primary system as well as the base for the secondary system.

(3) In terms of expenditure, the junior secondary school seemed the most appropriate way of spending the available funds, particularly as a large portion of the finances for expansion was being provided by external governments who, with the exception of Canada, would not lend money for expenditure on primary schools.

By way of aims, the junior secondary school would:

(1) Provide opportunities for all pupils to progress according to aptitude and ability;

(2) Provide remedial work for all who needed it;

(3) Allow a wide range of subjects - especially those that would be relevant to employment;

(4) Open opportunities for those who would proceed to second cycle and then to higher levels of education.

C) Curriculum of Junior Secondary Schools:

In lieu of revised syllabuses or pending the preparation of new courses, the following twelve subject areas served as curriculum guidelines:

Agriculture; Arts and Crafts; General Science; Home Economics; Industrial Arts; English Language; Mathematics; Music; Social Studies - including History, Geography, Civics; Physical Education and games; Religious Knowledge; Spanish and/or French.

D) Second Cycle Secondary: High Schools, Technical Schools, Vocational Schools

The plans for secondary education at this level included restructuring the schools to make them accessible to wider cross sections of the school population. This would have entailed the following:

(1) Removing all lower forms, that is, forms 1, 2, and 3 to junior secondary schools where they would become grades 7, 8, and 9. This would leave the schools at the higher level to start with grade 10 and thus be able to accommodate more students.

(2) Assuming integration was achieved, then junior secondary schools would become feeder schools for high schools in which case Common Entrance would be abolished.

(3) There would be a tendency toward bilateral and comprehensive schools instead of grammar, technical and vocational; this would make the second level of the secondary system multipurpose and less academically oriented. High schools would be required to add a number of courses to their curriculum and/or facilities for technical assistance.

(4) What was planned for high schools was also meant for technical schools, but the four-year courses would be reduced to two, as part of the course would have been done in junior secondary schools. According to the New Deal, it was estimated that 6,000 skilled workers would be needed annually in the industrial and commercial sectors of the economy; thus presumably this would be a target to aim at, in terms of output from the schools at the upper level of the secondary system.[34]

E) Teacher Training

The plans in this respect were to increase capacity of the teachers colleges in order to ensure an annual output of at least 1,000 teachers. At the same time, the training

colleges would offer courses for different levels of the education system - for example, those teachers who intended to teach in primary schools would do separate courses from those who intended to teach in Junior Secondary schools. For high schools, teacher training at the university level would be updated through a system of scholarships and bursaries.

F) Financing the Operations

Although there was heavy commitment to the expenditure of local funds, much of the financing was in the form of loans from international agencies. One of the main sources in this regard being the World Bank. (For others, see Appendix 11a). It was not until the late 1960s however, that substantial increases or budgetary allocations were made for education. We will consider this point in more detail under actual changes, to which we now turn.

CHAPTER FIVE

EDUCATIONAL CHANGES IN JAMAICA 1960 - 1975

As with the countries mentioned in Chapter three (i.e. those in Europe as well as those in the 'developing' world), the educational changes that occurred in Jamaica were mainly concerned with the secondary level. The most significant innovation was the introduction of junior secondary schools but as will be shown, there was ferment in other areas of education as the general aim was to improve the system at all levels "in order to increase its relevance to the island's needs. We have shown that a measure of reform was in progress before the period under review, but the "New Deal" it should be noted, represents an attempt to link educational planning with national development plans. Thus its goals were in many ways the same as those of the Five Year Independence Plan where the focus was economic development leading to "take-off" by 1968.

The latter document drew attention to areas where education should make contributions but did not specify explicitly how this should be done. Hence the plans for educational changes appear to have relied on general insights (rather than specifics) to establish the linkages between education and social and economic goals. The Independence plan emphasized technical education, as this (education) would be relevant to industry, commerce and agriculture. The document also noted that education should provide social and cultural services for the benefit of "sections of the community where demand for improvement was being reflected in discontent and unrest

over the years"[1]; but specific outlines for the type or the number of required personnel were not outlined. Previous governments were not unaware of these demands but earlier changes in technical education and measures such as Common Entrance did not produce expected results. According to the "Education Thrust", "they had served only partially, the combined demands of industry, commerce and government".[2] With new commitments to make secondary education available to "all", it became government's responsibility to rationalize the institutional arrangements; establish a proper age grade membership for different levels of the system and provide adequate programmes so that education could function in the service of development.

This chapter outlines actual measures that were undertaken to reorganize the education system and comments on them. The indicators being considered, it should be noted, are those for which there are available data; they include changes in enrolment, curriculum, teacher training, and those relating to secondary education. The presentation is in the following order:

I. Measures by which the reforms were guided.
II. Adjustments at the Ministry level.
III. Legislative and Administrative reforms.
IV. Reforms and Changes at the Institutional level.
V. Measures to increase Teacher supply
VI. Teacher Training and Curriculum Development.
VII. A Note on Educational Expenditures.

I. MEASURES BY WHICH THE REFORMS WERE GUIDED

The strategies for reorganizing education during the 1960s

were directed by the following five measures: The Education Act with its Code of Regulations (1965); The New Deal; The Five-Year Independence Plan; a report of UNESCO Planning Mission to Jamaica (1964); and the Education Thrust of the 70's.

The first gave the Minister of Education authority under the Jamaica Constitution to frame the national education policy to accord with the national development plans. The second, as already shown, outlined the educational plans and the method of financing the reforms. The third, was the plan for the national development; the fourth, like earlier Commissions, pointed out inadequacies in the system and recommended (in addition to school reorganization) that an Educational Planning Unit should be added to the Ministry of Education. The last document (The Education Thrust) ia a policy statement of the government which came into office 1972 and it contains revisions of the New Deal as well as revised outlines for financing education. It is perhaps significant for having proppsed the measures to abolish school fees; the policy of free education from age 4 to 17; and the institution of National Youth Service for the first time in Jamaica. The document also emphasized early childhood education; expansion of secondary education below the high schools level, and measures to develop a modern management function at the Ministry of Education.[3]

II. ADJUSTMENTS AT THE MINISTRY LEVEL

The Ministry of Education does not conduct public educational institutions but as the political head and executive centre for the

administration of education, it was necessary to update certain units within the structure in order to increase the Ministry's capacity to manage the education system. The following measures were adopted for the purpose during the earlier part of the '60s:

- creating statutory bodies to assist with the administration of education;
- formation of an Educational Planning Unit;
- organizing 'divisions' within the Ministry for the purpose of servicing various sectors of the education system;
- effecting legislation (under Parliamentary direction) regarding examinations, school fees, and the operation of private schools.

Among the statutory bodies created, the more important were: A Teacher registration Board; A Joint Board of Teacher Education, and Regional Education Boards. Along with these, an Education Advisory Council was formed as a Standing Committee.

The institute Board of Education functions (in conjunction with the Department of Education at the University of the West Indies) to: (1) approve curricula for teacher education (2) supervise the setting and marking of teacher examinations and (3) make recommendations to the Minister of Education with regard to teacher training. The Regional Boards advise the Minister on welfare schemes such as the schools' health programmes, distribution of uniforms and the schools' feeding programmes. The advisory Council advises on Early Childhood Education, technical/vocational education, and on the appointment of school principals.

The main functions of the Planning Unit were to prepare statistics with regard to school facilities, enrolment, the teaching force and costs related to these. In addition the Unit was required to compile demographic data relating to internal migration, manpower needs, and also information relative to student output and how this was meeting industrial and commercial requirements.[4]

By 1972 the Ministry was again reorganized on the basis of a report that the staff was not geared to "producing effective action" or to "carry out many of its functions".[5] On advice from the Ministry of Finance the following adjustments were made:

1. the post of Under-Secretary was created in order to administer operations concerning construction, maintenance of school buildings, and schemes relating to the external agencies (such as the World Bank) which assist with the financing of Education in Jamaica.

2. Five divisions were instituted, namely; (a) Planning, (b) Operations, (c) An Establishments Branch, (d) Finance and (e) Building. The Planning Division assumed the functions of the Planning Unit; Operations was put in charge of Curriculum development and all the levels of schooling up to teacher training, while the Establishments Branch which comprises a "Management Services Division" and the School Services Division" was to be concerned with the management of Ministry personnel, and the effective servicing of schools. The other two divisions function as their titles suggest.

3. In addition to the foregoing, the island was zoned into three regions and (regional) offices established to enable the School Services Division to operate more effectively.[6]

III. LEGISLATIVE AND ADMINISTRATIVE REFORMS

In view of the revisions (regarding objectives) as outlined in the Education Thrust, certain reforms which may be termed

"legislative measures" were effected at the direction of Parliament. These may be regarded as major and minor reforms in the sense that the latter category comprised some 'cosmetic' changes which could easily have been carried out at the level of the schools or on their (schools) own initiative, but were probably important as major policy measures since special budgetary allocations were made in order to implement them. Examples are increased library services, intensifying the teaching of Spanish, increasing welfare services to various schools. The more substantive reforms concerned: (a) the 70/30 awards scheme, (b) instituting a "shift system" or "staggered attendance", (c) Attempts at regulating examinations procedures, (d) the National Youth Service and (e) raising the school leaving age to 17 in new secondary schools. The first three will be outlined in this section and the others considered in conjunction with reforms to which they apply.

(a) The 70/30 Awards and School Fees

Shortly after the Common Entrance examinations were instituted, it was discovered that they were not serving groups of students for whom they were specifically intended; (i.e. elementary school children who would be allowed access to get secondary education). When translated into operational terms, this means that the approximately 4,500 places which were available in high schools at the time (1957 - 1960), should be open to the age cohort. It was also decided that 2,000 free places would go to those who had the highest test scores in the examinations, and the remaining places

shared by"grant-aided" pupils and "fee-payers".*

After a number of years it was revealed that those who obtained the free places were children whose parents could 'afford' the school fees. It was also discovered that the places were going to children in the private preparatory schools which invariably are attended by children from wealthy families. As these were defeating the aim of the free place awards, the government decided as of 1962 that the awards would be made on the basis of the students' performance, but preference would be given to those who attended public primary schools. Thus,70 per cent of the awards would go to those who received their primary education in the government primary schools while 30 per cent would go to those from private schools.Further that financial aid would be made available to parents who had difficulty coping with the school fees.

However, parents from wealthier homes would always adopt counter strategies to ensure that their children gained free places; moreover there were no suitable criteria by which to determine who

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* Note:The tests used for Common Entrance are of the Moray House variety. They include objective tests in English (with Composition), Arithmetic and tests of Intelligence. Both the language of instruction and the English idiomatic expressions are modified to suit West Indian experiences.

Prior to 1973,the method of allocating places was based on a somewhat complicated statistical procedure which in the final analysis meant that free places were awarded to those who had test scores above 300; grant-aid places to those who had the next highest scores while the fee payers were selected from borderline cases, or usually at the discretion of principals of high schools.

The structure of school fees was as follows: free place students paid no tuition, boarding or games fees. Grant-aided pupils would pay a portion of the fees but were subsidized by government grants which varied according the parents' financial circumstances.Fee payers on the other hand,paid the full school fees.

had difficulty coping with the school fees.On the other hand the prestige of high (grammar) school education and its "vocational" desirability, tended to intensify the competition for free places; thus, primary school teaching was (not always) but often distorted by coaching for the Common Entrance tests. In such cases,subjects of broad educational value would get'pushed'out of the time table to make way for coaching in the objective tests.

In order to correct these imbalances,the government(which came to office in 1972), abolished all school fees as of September 1973, and a year later all ancillary fees.Subsequently,a new system of subsidy was arranged whereby each school is allowed special financial grants according to its student population.[7]

(b) The Shift System

In pursuance of the objective to educate as large a number of students as possible, a "shift system" or staggered attendance was instituted in the mid '60s. The measure was first introduced in the primary schools as a response to the increasing school population, but has since become a regular feature of the education system. This Shift system is in effect a method of maximizing the use of the school plant by having students attend in sets. One set for half the schoolday followed by another set for the other half. Of course this means adjustments in the internal organization of the schools in order to ensure that instruction does not fall below the required minimum set by the Code of Regulations. The practice is therefore regulated by standardizing the number of hours per shift and by alternating the shifts

annually , so that both teachers and students who attend for the morning shift in one year, become the evening shift in the succeeding year.[8]

(c) Examinations and Proposals for Examination Changes

The use of examination at fixed points in the school system is a basic characteristic of Jamaican Education. Examinations generally serve to determine achievement; to select students for higher levels of education; and as qualifications for employment. The more important of these examinations however, have always been British in origin - a factor which has engendered much argument about their relevance for assessing the progress of students in West Indian school systems. Despite the polemics however, the basic patterns have not been drastically altered.

Before commenting on the measures to alter the structure of the examinations, the variety which currently serve different purposes in Jamaica should be mentioned. These range from the number of entrance examinations for entry to various educational institutions, to the external examinations - i.e. the Cambridge and the London General Certificate of Education Examinations, the London City and Guild and others which have traditionally been recognized as qualifications for entry to university and to employment in most occupations. In between are the Jamaica School certificate, the Grade Nine Achievement Test (which serve students in junior secondary schools), and other examinations for teachers' colleges, the Jamaica School of Agriculture, and so on. A comprehensive list of examinations which currently operate in the edu-

cation system is presented in Appendix 3(A).

The first set of changes in the examinations occurred in the Jamaica Local Examinations. Originally these Local examinations, the 1st, 2nd and 3rd Jamaica Locals, were the only government examinations in Jamaica. They were phased out in 1967 and replaced with the Jamaica School Certificate (JSC) on the grounds that the Jamaica Locals were "group exams" whereas the latter are "subject exams" and as such are more suitable for current needs;[9] for example, as qualifications in wider areas of employment. This has not proven to be the case however: passes in five subjects in the JSC are accepted as prerequisites for entry to teachers' colleges, but the examination itself is recognized as qualification for only minor areas of employment.

With regard to external examinations, two developments may be noted. The first is that West Indian History Papers (Cambridge), which were once set and marked in England, have (since 1972) become the responsibility of West Indian education authorities. The other is the formation of Local Examination Councils, the most important of which is the Regional Council in Barbados to which those in the other territories are affiliated. The purpose of the Councils is to initiate research with a view to formulating 'relevant' curricula and eventually new forms of testing and measurement to replace external examinations. In Jamaica's case the Ministry of Education has appointed examination committees to consider continuous assessment for the certification of students in all-age and new secondary schools;[10] but there is yet no decisive policy regarding the fate of external examinations.

The root cause of dissatisfaction with the external examinations (e.g. the GCEs) has been the high failure rate. This has led to complaints that psychological harm is often done to the students who fail them, when the fault is not really their own. At a recent conference, for example, there was the report that students are the victims of irrelevant curricula and examinations conceived for a different social culture.[11] However, in the absence of hard evidence to establish validity such assertions appear to be mere subjective judgments. It is somewhat of a paradox that the education authorities wish to change the examinations when they are so entrenched in the system and when the wider society (including the education authorities themselves) would have it no other way. The point is that external examinations have always been paramount in Jamaica in two senses: first, the results are indices of efficiency for both teachers and the schools.[12] Thus the more passes obtained, and the better the "quality" of the passes, the more they say for the schools' performance; furthermore,"good" results are the basis on which scholarships are awarded for higher education. Secondly,the external examinations continue to be taken because the wider society demands this: there is no alternative qualification for entry to the University of the West Indies, for example, and very few prospective employees can find "suitable employment" without (i) having passed a certain number of subjects in one or other GCE examination, or (ii) without having some equivalent qualification and/or experience. It is not easy to concede, therefore, that they were "conceived for a different culture"

when most local tests have not proven to be suitable alternatives. Perhaps they could be modified, to change idiomatic expressions and concepts as with the Moray House Tests for Common Entrance; but then, the fact that local education authorities are now responsible for the West Indian History papers, has not made such a great difference in the results as far as performance is concerned. For example, Appendix 3(B) shows the results of the (GCE) West Indian History Examinations over seven years. From the evidence, the number of students writing the paper (annually) has grown perceptibly, but the percentage passes appear to remain fairly close (at near average) and show the same fluctuations as before 1972 when the change-over occurred. From this one could conclude that while changes may be necessary, the administrators should look in other directions for improvement as well - perhaps in the quality of teaching - because merely switching the administration of the examinations through legislation has not made such great differences. A further note on examinations is made in connection with high school reforms, but let us now turn to the broader question of institutional changes.

IV. REFORMS AND CHANGES AT THE INSTITUTIONAL LEVEL

(A) Early Childhood Education

Prior to 1960 infant education was largely outside the formal system of education but is now a viable part of the structure. It is mentioned in these descriptions because it forms part of the reform programme, and has been given serious consideration by governments as part of their concern for social justice.

Before 1960, in fact, education at this level was mainly the concern of private individuals; it became widely recognized however, through the work of voluntary organizations such as the Van Leer Foundation of Switzerland and the National Council for Education in Jamaica. These groups actually sponsored programmes for the expansion of basic schools and the training of teachers to operate them. It was with their cooperation therefore, that the Ministry of Education began working at plans to train "specialist" teachers for infant education and also plans to design and supply of materials for the schools.[13]

Early Childhood Education, as it is termed in Jamaica, is still largely in the hands of private individuals but is becoming more and more recognized by governments whose commitment to its expansion and development is based on the following principles: (1) it is fundamental to an integrated system of education and is the basis on which further education can be built; (2) in consideration of the socio-economic background of some children, education at this level has to be subsidised if social change and social justice are to be achieved; (3) it is part of the programme for actualizing the policy of free education from age 4 - 17.[14]

Increased government involvement in this kind of education is evident from the financing of the schools. The expenditures cover teachers' salaries, equipment, nutrition for each pupil and general expansion. For example, grants totalling J$100,000 were made in the 1973/74 school year for their upkeep; this was raised to J$1.3 million in 1975. In September of that year,

the number of recognized basic schools rose to 1,679 with enrolment of 81,449 pupils and a teacher pupil ratio of 1:45. According to the Ministry's report, substantial increases are expected in the attendance at these schools, hence experiment with the 'shift system' has begun in the existing schools in order to maximise the use of existing space. The schools now operate from 8.30 a.m. to 5.30 p.m.[15]

(B) Primary Education

Primary,or elementary schools, as shown earlier, were for long the only means of providing public education for the mass of the population. In fact, up to 1968 this sector had approximately 89 per cent of all the students in the public education system, while the secondary and post secondary institutions had 10 per cent and one per cent respectively.[16] But, in spite of its importance, the sector was patently inadequate in terms of government's stated goals. Attention was drawn to its inadequacies in an "Education Sector Survey" from which the following is an extract:[17]

> ... the major weakness of the system is to be found in the generally neglected and poor quality primary schools which have not received anywhere near the input provided at the secondary level over the past decade. The primary level ... is not providing the type and quality of primary education which will feed the students into the secondary system anywhere near the level necessary to make the secondary level effective, or for that matter enable the whole education process to be meaningful to the economic and social needs of the country. In fact, the secondary system has to adjust much of its resources to the serious problem of the deficiences of those coming out of primary with inadequate preparation.

Reforms at the primary level of schooling were therefore aimed

at improving and expanding the physical facilities in order to avoid overcrowding and to improve working conditions; compulsory attendance for children within the age group; updating and integrating the sector with the wider system so that it might serve as a foundation for further studies. Curriculum improvement and the provision of certified teachers for the schools were also high on the list of reforms.

At the outset, the age of admission was reduced to 6 years instead of 7, and the programme regulated so that pupils would remain in the schools until age 11+ or 12. At the same time, those between ages 12 - 15 years (who attended school in what is termed the "catchment" or geographical area of junior secondary schools) were transferred to the latter so that more of the 6 to 11 age group could be accomodated in the vacated schools.*

Additional buildings were provided for accomodation but this did not hasten the measure to institute compulsory education. In that regard the Minister of education was empowered under the Education Act (1965) to: (a) declare any area within a radius

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* Note: Those pupils who were not transferred, or those who did not pass Common Entrance to go on to high schools, had to complete their education in primary schools as space permitted. Some of course went on to private schools; but as integration and education "for all students" were intended, these led to the following adjustments in the primary school structure:

All senior schools were converted to junior secondary schools; the elementary schools (i.e. those from which the 12 - 15 year olds were not transferred) became all-age schools. At the same time new buildings were provided - these became the authentic primary schools. This structure accounts for the fact that primary education is offered in two types of government institutions:

(i) primary schools, which cater to the age group 6 - 11+ in grades 1 - 6;
(ii) all-age schools, which accommodate pupils from 6 - 15 years in grades 1 - 9.

of three miles from any school to be a "compulsory education area"; and (b) to declare the compulsory school age in relation to such a compulsory education area.[18]

These orders for some reason were not carried out to any great extent; instead they were made in respect of one political constituency which became an experimental area or pilot project. As the "Economic and Social Survey" (1975) points out, "... until there are facilities for every child to be in school, compulsory attendance, though desirable, cannot be enforced".[19] On the other hand, much use has been made of the 'shift system' in these schools; this has provided instant accommodation in areas which are responding to rapid urbanization, but accommodation remains a problem as enrolment continues to exceed capacity. For example, data for 1975 show that the excess was over 18,000 in primary schools and above 75,000 in all-age schools; (Appendix 4).

In terms of curriculum development for primary schools, there are changes in the basic ideas underlying the structure and content. Traditionally the elementary school curriculum consisted of reading, writing, arithmetic, geography and history, grammar and composition, scripture and morals, with practical instructions in sewing, gardening and woodwork. The aims, as Gordon notes, were to give "a foundation in elementary education" (but not necessarily in preparation for secondary education), to help students "earn a living, and (to) discharge their duties as citizens".[20] With the reforms the core of instruction has remained but there is now emphasis on Language Arts, Mathematics, and a range of activities including health education; consideration is

also given to creative aptitudes in music and preparation for later studies (see Appendix 5).There is also interest in producing texts which are considered relevant to the English Speaking Caribbean for the reason that imported texts may not relate to the area, or to the children's experiences.Furthermore there is concern for education which relates to the needs of the area, especially projects in rural primary schools which are aimed at adapting the curriculum for use in agriculture and other areas of the rural environment.[21]

Efforts to upgrade teaching at this level of schooling are shown under teacher training, subsequently.

Enrolment in the public sector primary schools rose to 443,844 in the 1975/76 school year: this total is shared between 229 primary schools and 547 all-age schools and represent 77 per cent of the students in public sector schools.[22]

(C) Secondary Education

Although new arrangements for secondary education were in progress by 1960,it is apparent that most of the ideas were not widely known throughout the education system until about 1965. For example the introduction of junior secondary schools and (two) comprehensive schools were at first seen as experimental projects. The 'comprehensive schools' concept has in fact taken some time to be understood despite the"New Deal" efforts.[23] A brief retrospective account of changes in the early '60s will show where the system stood (1965) and help to bring out the significance of later innovations.

The practical training centres* were converted into technical schools and in addition, a couple of technical schools came under construction by 1961. Along with these, fourteen senior schools were converted to junior secondary, while eleven all-age schools were slated for later conversion. With these adjustments, the introduction of Common Entrance examinations, and the adjustments to elementary schools, secondary education was brought to the stage where it was offered in six types of schools. Attendance at high schools commenced at age 12 and at 13 in the technical and vocational schools, while junior secondary and all-age schools accomodated students in grades 7,8 and 9 from age 12 to 15. These (junior secondary and all-age schools) comprised the first cycle of the secondary system; (note Table 4).

TABLE 4

OUTLINE OF SCHOOLS AT THE SECONDARY STAGE - 1965

Level/Type of School	Number	Age Group	Grade/Form	Enrolment
First Cycle				
All-age	679	12 - 15	7 - 9	n.a.
Junior Secondary	14	12 - 15	7 - 9	13,062
Second Cycle				
Comprehensive	2	12 - 17	7 - 11	1,945
Vocational/Trade	5	15 - 17	10 - 11	601
Technical	6	13 - 17	8 - 11**	2,973
High (grammar) Schools	40	12 - 18+	Forms1 - 6A**	21,167

Source: Facts on Jamaica; Education (1973) p. 11

* These were the institutions (referred to earlier) which taught practical subjects - agriculture, motor mechanics, commercial subjects, woodwork etc. They were not full technical schools; but provided instruction which could be termed secondary.

** Grades in the high schools are normally termed 'Forms'.

Although the arrangement (Table 4) is the profile of the system that was in formation, only schools constituting the second cycle were generally accepted as secondary schools. In order that the junior secondary schools become part of the system, it was necessary to change the whole concept - buildings, equipment, curriculum, staff and the approach to studies - if they were not to be regarded as senior schools.

Other changes (in the system) at this stage were also necessary because eligible students (meaning those who were between ages 11+ and 13, some of whom had passed Common Entrance), could not move into secondary schools as a normal procedure. Furthermore educational standards were not the same in all schools which were at the same level; for instance there was no meaningful secondary programme for grades 7 - 9 in all-age schools and the curriculum for junior secondary schools was provisional in 1965. One report shows that aside from differences in the methods used to determine entry to each level, the methods of terminal assessment of students were completely different for different schools, and the quality of the teaching staff varied according to the institutions.[24] There was also a general lack of accomodation as late as 1965. This factor seems to have militated against restructuring along the outlines of the New Deal even more than the others, because neither the junior secondary schools nor the first forms in high schools could accomodate the number of pupils leaving primary schools at the time.[25] On the other hand the limited number of technical schools (6) and vocational schools (5) meant that enrolment in these schools could not be increased for those who wished to pursue

this line of studies. Moreover the location of secondary schools over the island was such that accepted students either had to travel long distances or find boarding accomodation close enough to the schools to be able to attend regularly. In fact, the whole secondary system stood exactly where it was in 1958 despite prior adjustments.

Thus, along with plans for introducing junior secondary schools, expansion was necessary if there were to be increased enrolment and accommodation, and by the same token, participation by a larger cross-section of the population. Integration was also desirable if secondary education was to be available as a normal continuation after primary school. The following sectional accounts outline what was done in the secondary sector.

(1) Junior Secondary Schools

(a) Growth and Development

At the time of 'tabling' the New Deal it was proposed to:

(i) increase the number and spread (i.e. of junior secondary schools) by building 50 between January 1966 and September 1969;

(ii) convert more all-age schools to junior secondary status as staff became available;

(iii) make entry to the schools non-selective, and determined by age and by geographical proximity as planned; (thus the primary schools which were at close proximity became 'feeder schools')

(iv) arrange training sessions and workshops for prospective principals and teachers in order to reorient them towards the new concept and to improve their competences in various subject areas. This was done with the assistance of a US/AID team of teacher trainers.

(v) With regard to curriculum, the pattern suggested in the

plans was adhered to in the initial stages, while preparation of new syllabuses was undertaken by specially selected committees.

(vi) Time tables of 40 periods per week were arranged and the proposed teacher pupil ratio 1:35, or at most 1:40 in the schools.

Introducing junior secondary schools was not altogether smooth however; the problem of accepting them has already been alluded to, but another was integrating them into the secondary sector. They were becoming "a subsystem", somewhat divorced from the rest of the sector, as they admitted students (at age 12) who would graduate after three years; some having done the JSC, and some no examinations. The former could go on to teachers' college (depending on the subjects passed), or into the lower echelons of employment, but the majority were left in the same situation as the case with senior schools in the former elementary system. There was one exception; that is, an attempt to link junior secondary with high schools. This was done through the Grade Nine Achievement Test, which was used to transfer a limited number of students into the third forms of high schools. From here, those with ability could go on to Cambridge GCE at age 17 or 18; but the majority would necessarily have to repeat a form in order to 'catch up' on subjects like foreign languages and mathematics. The procedure, of course, had nothing to do with the way high schools recruited their first forms; nor was it mandatory that high schools accept the transfers. Therefore, instead of a system rising progressively from primary to junior

secondary to high school, two distinct secondary paths were being charted, only that one was a shorter route to leaving school.

Government's policy toward education in 1972 brought about a partial remedy to the situation , though it did not actually bring the systems closer. In declaring education free for all groups from age 4 - 17 (and to 19 in high schools), this meant that junior secondary schools were directly affected - firstly the school leaving age was raised from 15 to 17; and secondly, at least 18,000 students who would normally have left school in 1973 were retained. These formed grade 10, and in following year, grade eleven. The name of the schools was also changed from junior secondary to 'new secondary'.

(b) Curriculum Changes in the New Secondary Schools

The most important feature of the "new secondary education" is the emphasis in grades 10 and 11 on work skills and work experience. A new programme has been arranged whereby students spend at least sixteen periods a week on vocational studies, and a portion of the school year participating in work experience. The programme, which is mainly "vocational education", is defined by the education authorities as " those studies that are concerned with both theories and their application to the physical world, with particular emphasis on the production of goods and services."[26] The (five) areas of this "technical/vocational education" programme as given by the authorities are: "Agriculture, Arts and Crafts, Business Education, Home Economics and Industrial Arts";[27] and according to them (the authorities), the programme is so arranged that by the end of grade eleven, students should acquire

the necessary skills, attitudes, knowledge, habits and values as a result of their acquaintance with the courses.

Although emphasis is placed on technical/vocational training, allowance is made for a relatively small number of students who attain a satisfactory standard - in English and Mathematics - to pursue courses leading to further studies. This is done through "continuing education" or that part of the programme in which students pursue a mandatory "Core Curriculum" and spend another six periods per week on options which they are free to choose from the general programme.* These studies are so arranged that grades 7 - 9 follow Agriculture, Arts and Crafts, English, Industrial Arts and Home Economics with Mathematics, General Science and Social Studies. Typing is optional at grade 9. Grades 10 and 11 have a heavier input which is designed to train students for industrial, commercial and service occupations. Table 5 gives an idea of the general courses and the number of students who were involved in each in 1975.

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*Note: Continuing Educational studies include English Language, Mathematics, Natural Sciences, History, Social Studies, Commerce and Art; while the 'core' which consists of Language Communication, practical mathematics and what are termed 'Life Skills' is designed to provide additional skills, and attitudes which will support other aspects of the programme for grades 10 and 11.

Life Skills, incidentally, include a series of projects covering themes such as consumer education, budgeting and saving, studies relating to the Caribbean and to neighbouring communities, and employment patterns.

Each student, in the new secondary schools, is allowed to carry eight courses plus the Life Skills, but may exceed this number if capable of doing so; see e.g. Ministry of Education: Annual Report 1975/76 pp. 121 - 124.

TABLE 5

NUMBERS OF GRADE 10 - 11 STUDENTS BY COURSE,1975/76

COURSE	GRADE 10	GRADE 11	TOTALS
Continuing Education	3203	3129	6332
Agriculture	720	792	1512
Typing & Office Practice	2355	1706	4061
Clerk & Salesmanship	970	659	1629
Food & Nutrition	2140	1706	3846
Child Care	1296	737	2033
Clothing & Textiles	1529	1280	2809
Crafts	968	822	1790
Auto-Mechanics	888	220	1108
Carpentry & Cabinet Making	1387	1191	2578
Electrical Installation	2155	1541	3696
Drafting	68	28	96
Machine Shop & Welding	1173	910	2083
Plumbing	15	-	15

Source: Ministry of Education,(Jamaica) Annual Report - 1975/76 p. 121.

(c) **Work Study in connection with New Secondary Schools**

In addition to school work, grade 11 students are required to spend at least three weeks of the school year in an occupation or service. For these projects, the cooperation of employing firms is sought, and the latter asked to appraise the students' approach and attitude to work.The information is then

fed back to the schools where it becomes part of the evaluation for the students' school leaving certificates. Appendices 6 & 7 show the courses undertaken by grade 11 students (1975) and a representative listing of work stations in which they (students) were placed in the school year 1974/75.

The actual growth of new secondary schools (from junior secondary in 1965 to new secondary in 1975) is shown below. Five-year intervals are used to minimize the listing:

School Year	No. of Schools	Grades	Enrolment
1965/66	14	7 - 9	13,062
1969/70	16	7 - 9	30,635
1975/76	70	7 - 11	92,813

Source: Facts on Jamaica: Education, 1973 pp 13 - 14 ff; Ministry of Education: Annual Report 1975/76 p. 35

The last total represents 64.3 per cent of the students receiving one type of secondary education, or approximately 15 per cent of students in the public system of education.

(d) Other Developments in New Secondary Schools

The emphasis on education to 17 in this sector, meant expanding the schools and providing them with additional equipment. The 'shift system' has also been employed to accomodate grades 10 and 11 beginning 1975, and an additional 900 teachers employed. Most of these teachers are specialists, or they are skilled tradesmen but not 'trained teachers'; therefore orientation courses had to be arranged for them. Appendix 8 shows the grades 10 and 11 courses with the type of teachers; those in the columns marked (SPE) and P.T. would contain the skilled tradesmen.

(2) Second Cycle Secondary Education

(a) General

Reforms at this level of the secondary system were not carried out as planned. The lower forms of high schools and those in the technical schools were not removed to junior schools. Integration (as defined in the plans) was not achieved, nor was Common Entrance abolished, and the plans to institute a number comprehensive schools are only just being actualized. In the overall scheme of reforms however, the plans for reshaping the schools have not altogether been shelved. There have been adjustments in order to accommodate more students; to widen curricula; to increase staff; and there was some amount of restructuring in the vocational schools. These, however, cannot be said to have equalized opportunity for secondary education as the governments intended.

With regard to high schools, for example, the number remained at 40 until 1973 when two independent schools became grant-aided. Since then, a number of minor adjustments (e.g. adding classrooms, laboratories and teaching workshops) have been made to existing schools to allow for added accommodation and teaching space; otherwise expansion in the sector has been limited. The distribution of the schools has also remained the same, for example the Corporate area (Comprising Kinston and St. Andrew) has eighteen high schools with the highest enrolment, while there is only one of each in six parishes where enrolment varies between 340 (in Trelawny) and 805 (in Manchester); see Appendix 10 for examples.

(b) Curriculum and Staffing High Schools

All high schools have increased staff because of additional enrolment and the courses which have been added to their curriculum. In order to meet the problem of teacher shortage expatriates were recruited at one stage; overseas volunteers also provided limited assistance through the Overseas Technical Assistance Scheme of the Ministry of Education, but other measures were instituted. These will be dealt with shortly.

The main curriculum developments have been inclusion of certain practical subjects which were hitherto excluded. With the rise of industrialization, and acceptance of economic and social development as national goals, attempts have been made to "widen" the high schools' curriculum by adding subjects such as technical drawing, metalwork, woodwork, business education typing , agricultural science; at the same time heavier emphasis has been placed on foreign languages; for example, Spanish, French and German. However the high schools' curriculum is still largely determined by overseas examinations, namely: Cambridge GCE and to a lesser extent the London GCE, which determine the actual courses of study. On the other hand, particular schools have always included a judicious amount of cultural activities in the form of art, music, drama, and a variety of extra-school activities (e.g. clubs and athletics).

(c) The High Schools and Common Entrance

Both high schools and technical schools continue to recruit their first forms through the Common Entrance tests but there are problems concerning entry at these levels. The number of

students who seek admission has more than doubled in ten years but the intake is still very limited. In 1965 for example the number seeking entry was 16,489; by 1975 this had grown to 34,359. However, although all places have been made free since 1973 the education data reveals that only about 20 per cent are accepted annually. Appendix 9 shows the entries for the examination over five years and the awards. Taking 1975 as example we find that over 28,000 pupils were not accepted in high schools. Those left in primary schools would probably move into new secondary schools, but the majority of those in all-age schools would continue at the lower level for another three years, unless they could afford to go on to private schools. Their opportunity for learning skills at the upper level in the public system is therefore not equal to those who, at age 12, are admitted to high school. Against this it should be recalled that success in a given number of subjects in any of the GCEs is the requirement for entry to most of the institutions for further education and for certain levels of employment. We will return to this point in the next chapter.

(3) Technical, Vocational and Comprehensive Schools

As with high schools, there have been very few changes in these schools since the conversion of the practical training centres which brought the number of technical schools to six. On the other hand the vocational schools have been reduced to two as some of them were converted to new secondary schools. Over the interval, a limited number of comprehensive schools (5) have been added to the secondary system; and in order to accommodate

more students, those in the Corporate Area have been required to operate a shift system, but otherwise there has been little information concerning their operations.

Technical schools continue to offer a four year course designed to give two years of basic technical education followed by two years in a special field while vocational schools offer students , of 15 years and over, the chance of learning special skills for specialized occupations. The courses range from two to four years, but since 1974 they have been operating tutorial farms, or agricultural training centres, where the activities include animal husbandry, dairy farming and agronomy. These presumably will mean longer duration of courses but this has not been determined. The vocational schools for girls offer courses in home economics, beauty culture, and crafts of various sorts.

Curriculum development in the technical schools seems to follow the pattern of high schools. As with the latter the examinations taken determine the courses that students pursue, but attempts have been made to diversify the courses to allow students to qualify for entry to institutions for further education. In terms of preparation for industry, recent curriculum developments include "day release classes" for apprentices and what is termed 'industry day'. The former is conducted for the benefit of working students, while the latter is an arrangement with employers (from industry and commerce) who visit schools to discuss programmes pertaining to the students' preparation for employment. Added to these new features is work experience which is similar to the work study programme of the new secondary schools.

(4) Integration in the Secondary System

Integration, as indicated earlier , was not achieved but the introduction of grades 10 and 11 in new secondary schools and the adjustments made to vocational schools have generated some degree (of integration) among the all-age, technical, vocational and the new secondary schools. The following are the reasons for this:

- The practice of transferring students from junior secondary to high schools, by means of the Grade Nine Achievement Test, ceased as of May 1974.[28] In 1975 all the candidates from all-age schools were awarded places in new secondary schools only.
- Until 1974 there were five vocational institutions; three of these were converted to new secondary schools and were thus able to offer a more comprehensive programme of studies to the students transferred from all-age schools.
- Six high schools and one technical school have now added new secondary departments,with the result that students from all-age schools may enter the new secondary depaerments and continue through with the benefit of a more comprehensive programme.

V. MEASURES TO INCREASE TEACHER SUPPLY

One of the obstacles to educational development in Jamaica has always been an inadequate supply of qualified teachers. The problem was more acute during the reconstruction as teachers were required in sufficient numbers to synchronize with the expansion

programme; thus a number of measures had to be adopted to meet the requirements. Two examples have been mentioned, namely, recruitment of expatriates, and employing skilled tradesmen in the new secondary schools; but more vigorous programmes were designed to increase the supply of teachers or to upgrade the skills of practicing teachers. For example, there were inservice training, internship teaching and National Youth Service programmes.

It should be mentioned in passing that there have been three main ways of preparing teachers in Jamaica. The first is by residential courses in teachers' colleges. For this, students are recruited by an entrance examination and required to spend three years in training. The second is through part-time or pupil-teacher arrangement whereby non-graduates are employed to teach in high schools on the basis of their GCE qualifications, or 'probationers' would be hired in primary schools on the basis of their having passed the Jamaica Local (3rd) Examination or the JSC in five subjects. These categories of teachers would be untrained. The third method of preparing teachers is by university training. This may or may not be directly concerned with teacher training however; for example, any graduate of a university may be employed to teach, but he or she would be an untrained teacher unless the university course was in education. These methods it should be noted are still in operation with teachers' colleges supplying the largest output of trained teachers for primary, all-age and new secondary schools, while mainly university graduates are employed to teach in the high schools. (See Appendix 12 for examples).

The first measure to increase the teacher supply was,quite naturally, resorting to the traditional methods of training by expanding teachers' colleges. But at the same time the three-year residential course was reduced to two and the(final-year) students made to spend the remaining year in schools as practicing teachers. The practice is known as "internship teaching", and it is still being used to supplement teacher supply in Jamaica.

A second measure was to award scholarships and bursaries to untrained teachers in high schools so that they could pursue courses,in a university, leading to a degree,or to Diplomas or Certificates in Education.

Underlying such measures were the assumptions that by 1970 the ratio of trained to untrained teachers would be 2:1 in high and technical schools and at least 4:1 in junior secondary schools. The teacher pupil ratio was projected to be about 1:40 or 1:35 in primary schools, 1:25 in high schools and 1:20 in technical schools. It was also assumed that the attrition rate would be no more than 3 per cent annually.[29]

By 1970 however, the staff/pupil ratio for primary schools was 1:57 and for those with interns 1:50; for junior secondary schools it was 1:43. The high and technical schools maintained ratios of 1:20 but faced the problem of high staff turnover.The Economic Survey (1972) shows , for example, that the profession was losing the equivalent of 40 to 50 per cent of the trained teachers up to the ending of the previous year.[30] By 1972,therefore new strategies were designed to supplement the qutput of teachers. The more important of these were : the National Youth Service

programme, Inservice Teacher Education and the Curriculum Development Thrust to which teacher training is allied. A number of other 'cosmetic'measures which involved budgetary allocations to institute teacher training for agriculture and Business education, were also implemented.* The first two measures are outlined below , while the Curriculum Development Thrust follows in the next section of the Chapter.

The National Youth Service was established in 1973 as part of the design to create additional manpower.[31] The concept was based on two assumptions, both with educational implications. First,it was assumed that the youths would remain in education up to university level and thereafter give service in occupations where they would be most needed. Secondly, that the two-year period required in the service would afford an 'education' in social interaction and at the same time enhance each individual's capability in the particular occupation in which service was given.There were stipulations for eligibility, but the one which concerns us most is that each recruit for National Service should be a graduate of a secondary school or university and should be not less than 18 or over 25 years.[32]

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* For example,an amount of J$64,915 was provided for a Technical Teacher Training Project at the College of Arts Science and Technology. This began as a pilot project in 1970 and was assisted by the Canadian International Development Agency to provide facilities to train 300 teachers by 1975.

Agricultural training Departments were also established at Knockalva and the Jamaica School of Agriculture to train 60 teachers for agricultural teaching. Along with these Summer in-service courses were arranged for Business Education teachers. Allocations for these courses (1973/74) totalled approximately J$80,000. See e.g. The Education Thrust pp 11 - 12.

So far the Ministry of Education has been the main user of National Youth Service workers. In 1973 for example,about 1,000 volunteers were placed in teaching and over 400 remained in the service of education up to 1975. In October of that year, 158 entered teachers college and about 150 took teaching jobs.

Inservice Teacher Ecucation began about the same time as the National Youth Service under the title "In-service Teacher Education Thrust" (ISTET). The programme was intended primarily for pre-trained teachers,but the organization of courses came under the Joint Board of Teacher Education who are responsible for the training and examining of the participants. The ISTET syllabus is therefore similar to that of teachers colleges only that ISTET teachers do most of the courses in workshops and seminars, particularly on weekends. As of 1975(September) 1,968 teachers were involved in the courses but most of them have now moved into teachers college.[33]

VI. TEACHER TRAINING AND CURRICULUM DEVELOPMENT

Other aspects of teacher training are allied to curriculum development as we pointed above.These projects started in 1968 with the institution of a Materials Aid Centre which provided educational services such as educational broadcasting (television and radio) and the publication of reading materials for schools. About the same time the National Curriculum Development Committee was formed to revise the syllabuses for the junior secondary schools; but it was later replaced by the Curriculum Development Thrust which

now sees to the revision of syllabuses for all grades in primary schools and new secondary schools. The 'Thrust' started out (1972) by revising grades 1 and 6, then 2 and 7, and so on until all grades were covered. This involved organizing seminars for principals and teachers during the vacations, as well as producing tapes and cassette programmes for distribution to schools so that the education system would be kept up to date on revisions until all the material was printed and published.

The Thrust is currently involved with the ISTET and the National Youth Service programmes, and is in charge of the 'Core' curriculum for new secondary schools.

Two additional groups are involved with curriculum development and teacher training. These are, the Agricultural Curriculum Committee and the Vocational Education Unit. Based on the idea that one of Jamaica's largest employers is agriculture,the former carries out duties (relating to the teaching and practice of agriculture) at the schools where tutorial farms are in operation. In 1975,tutorial farms were operated in five all-age schools, 43 new secondary schools, 7 high schools and in 4 technical schools.[34]

The main functions of the Vocational Education Unit concerns the planning and implementation of all aspects of technical and vocational education from primary schools to institutions for further education. One of the duties of this Unit is to liaise with other Ministries of Government and with employment agencies in the private sector "to determine developments and needs as related to technical and vocational education".[35]

VII. A NOTE ON EDUCATIONAL EXPENDITURES DURING THE PERIOD

The foreword to the Education Thrust makes the comment that "financing of the expansion was not satisfactory despite sums spent over ten years".[36] Actual figures for the period were not shown but it is evident that substantial funding was necessary for the programme. Apart from the fact that the Ministry was not satisfied with returns from what was seen as an investment by the government, the comment above seems to derive from the idea that Jamaica was underspending on education. The fact is, public expenditure on education has always been low; for example, in 1960 expenditure was only 2.71 per cent of the gross national product (GNP) which at the time was J$480.4 million. In 1966 the GNP rose to J$675.6 million, but government's expenditure was 2.96 per cent or J$19.98 million. In other words, during the period the GNP rose by 40.6 per cent but expenditure on education increased by only 9.2 per cent.

Against this, it has been said that the importance of educational expenditure (or investment) to growth and productivity has impelled policy makers in developing countries to allocate at least 5 per cent of their GNP to education; and according to recent conferences in Asia and Africa, this target is generally achieved and exceeded in some African nations.[37]

As a developing country it could be that other projects required more attention in Jamaica, but without ready information one cannot be certain what were the government's priorities. What we do know is that foreign aid was sought to finance the

expansion programme.Thus,according to the New Deal, the following agencies provided loans or assisted with the finances: the World Bank, the United States (through the US/AID programme, and the Canadian International Development Agency, CIDA for short. In 1966, for example, a sum of J$16.0 million was provided jointly by the world Bank which contributed J$6.8 million; the US/AID which provided J$928,000 and the Jamaica Government who provided the remainder. These sums covered the cost of 50 junior secondary schools,teacher training facilities and expansion at the Jamaica School of Agriculture. Expansion in primary education was made possible by a Canadian loan of J$466,370 and the counterpart of J$549,410 from Jamaica.[38]

In view of the plans however, it was clear that these sums were insufficient. We do not have detailed expenditures for the period (i.e. on a sectional basis) but estimates from the Economic Surveys (1971 and 1972) show that the budgetary allocations (Jamaican) were increased from J$25.0 million in 1967/68 to J$61.0 million in 1972/73. The last amount was raised to J$65.0 million in 1973/74 with substantive foreign aid.[39] This covered building costs, other on-going projects, some amount of the reorganization at the Ministry of Education and expansion for secondary schools. Since 1975 however, renewed attempts have been made to finance the various aspects of the reorganization, especially as regional offices are now in operation and more interest is being generated in arts and culture. The provisions for 1975/76 were raised to J$154.8 million, of which J$25.7

was for capital expenditure and the remainder for recurrent expenditures. A table of the estimates appears in Appendix 11.

Summary

From the foregoing outlines it is evident that much effort has gone into reorganizing education during the period under review, but a number of problems are still unresolved. For example, complete restructuring "into a coherent whole" as the planners indicated, is not altogether apparent. Nor has the aim,"education for all", been fully realized. If this has any direct bearing on the notion that education can be an agent for social change, it is not particularly evident in what was actually done. The intended objective "to open the system" in order to create opportunity for"all" is in evidence but it seems that reforms that were meant to change the structure of high schools have not been implemented.

Questions relating to the system's contribution to development and the concern for equalizing opportunity will be left to the next discussion;however, the requisites for effecting desired changes have not been made clear in the effort to set up a newly organized system.

Attempts at improving the Ministry of Education for more effective management or to strengthen its administrative function are understandable, but considering the strategies that other countries are now adopting to improve their systems of education - for example research, and other explorations into ways in which the educational process can be made more effective - it would

appear that any reform at the centre of administration should be concerned with developing similar units if only to improve its planning as well as its other operations. In fact research is now an international concern of educational authorities as nearly all technological adaptations, and consequently much changes in education, can be traced to the research function. Comments on this have also not been lacking in Jamaica where little attention has been given to the exercise in the past.

But to return to the summary, the most apparent reforms in the education system are at the lower levels of the institutions. Here stages which were not in existence before (for example new secondary schools) are recognizable; but the structure is such that each level has different connections with future levels in the system and therefore differing opportunities for advancement. Allied to the institutional changes , is continued work on curriculum with the recognition that adequately trained teachers are the sine qua non for educational development; hence the effort to set up training programmes. What has been termed "liberalizing of the education system" is also evident in the abolishing of school fees; the recognition of basic schools(and infant education) as integral parts of the system; the expansion programme; and in government's willingness to participate in education where either the church or private enterprise had control. These changes are of course important for 'development'. Furthermore there are now attempts to link sections of the formal education system with employment agencies in order to improve occupational training.

However, the introduction of junior secondary schools has

created a kind of differentiation in the secondary system rather than integration, and in spite of readjustments (in the new secondary schools) there is yet a tendency towards 'dual' streaming. On the other hand, compulsory attendance has been deferred in spite of new methods of organization such as the shift system. Moreover, planned measures for new secondary and high school reforms (e.g. standardizing entry requirements, and certification of school leavers from new secondary schools) have not been fully decided. Finally the methods employed to increase staff, as well as those for training and retraining teachers are in many ways experimental, as for example internship teaching. The Youth Service programme appears to be a worthwhile change in the sense that it holds potential for further development, but "In-service Training" has not produced innovations or suggested that the programme has been designed to give teachers a chance to exercise initiative, or that new courses for development have been charted. New directions for future training as well as qualified teachers are still needs in the system.

In terms of actual numbers high schools have most of the teachers who are university trained, (Appendix 12); however the annual output which was projected at 1,000 per annum, has not actually been reached (Appendix 13 shows the output for 1975); and according to the staff/pupil ratios, the shortage of qualified teachers is evident at all levels of the system; see Appendix 14.

CHAPTER SIX

ASSESSMENT AND CONCLUSIONS

Having surveyed the educational changes and adjustments, it is now possible to attempt an assessment regarding the extent to which they have met government's objectives and therefore the extent to which educational policy has served development. In this section, we will consider the changes in relation to producing manpower requirements, and in relation to equalizing opportunity, and we shall intersperse the comments with examples and considerations from sources which have dealt with similar problems. Towards the end, a brief overview of Jamaica's development will be included to see where education might have fitted into the process.

A convenient starting point for assessment is the plans. Evidently, these were meant to be aligned with the plans for national development but the evidence would seem to suggest that education required its own attention; hence it is doubtful how much interest could be devoted to the larger question. Of course, there were attempts at linking the vocational content of secondary schooling with the employment system, through the curriculum and work experience projects, but the time allotted for the latter appears to be too limited for the students to gain enough from the exercise. There will be further allusions to this but in order to stay close to the plans we may consider approaches followed by other countries

with similar aims for development and see how Jamaica compares with these.

During the late 1950s and early '60s, countries which formulated educational plans to match their national development plans, stated their development goals in terms of long-range objectives which involved:

- increasing gross national product and per capita incomes;
- provision of full employment;
- parity of per capita incomes between different sectors of the economy;
- achieving universal literacy;
- eliminating dependence on foreign assistance.

Assuming plans which focus on such objectives are nationally prepared, they will not only set certain targets to determine how the education system should perform at different levels, but the planners will realize that certain types of manpower cannot be produced at the pre-university level;* for example, certain kinds of managers, engineers, and

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*The example above is taken from the "Third Five Year Plan of Pakistan" as cited in Adams and Bjork (1969: 143); See also Huq, M.S. (1965: 130 - 150).

Note: The particular example was not chosen to suggest that the Pakistani method constitutes a "model plan". It is doubtful whether there are any such plans because each country will of necessity devise plans according to its resources, what it aims to achieve and so on. As a matter of fact, Huq points out that Pakistan's plan had weaknesses and had to draw on former experiences in order to make corrections in later approaches. It is said, though, that the Third Five Year Plan struck a note of realism and a pragmatic approach. That is, it did not attempt more than was possible from the country's education system at the pre-university level.

(contd. next page)

medical personnel. Secondly, resources will be allocated at each level of education in accordance with how the level is expected to perform.

This is not to suggest that the secondary level of the education system in Jamaica was expected to produce the personnel in the example, but the plans do imply the desire to turn out a labour force whose training would more appropriately be the province of adult or of higher education. Take for instance the references to political independence not being able to function without trained manpower,[1] and that of creating "higher and middle order manpower" for economic and social development;[2] it seems unlikely that the education system as currently organized can produce these types. It is perhaps on account of reasoning of this sort that Professor Lewis points out that the potential contribution of children's education to output is small compared to the potential contribution of effort devoted to improving adult skills. "The quickest way to improve productivity in less developed countries", he says, "is to train the adults who are already on the job".[3]

Raymond Lyons also puts the case succintly in the following passage which illustrates the integration between educational planning and overall development planning. He says:

> Every development plan (long-term, medium-term, short-term) contains targets for education ... and provide for appropriate financial outlays. These educational

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Furthermore, the expenditures involved during the plan-period had a shortfall of 32 per cent, but in financial terms, targets were fulfilled to the extent of 90 per cent of the objectives. Huq, M.S.; (1965) pp. 134 - 137.

> targets are closely linked with the other economic and social targets. The thinking behind this is that there is no point creating new productive capacities if there are not enough engineers and qualified workers to operate them. There is little sense either, in turning out skills for which there is no productive employment in sight. The two processes must be co-related so as to avoid waste of resources both material and human, and maximize the rate of growth.[4]

The question is, how does Jamaica compare with this kind of approach? In the first place, the approach to educational planning appears to be what is generally termed the "social method"; that is to say, an approach in which educational needs are viewed in terms of certain general, cultural and political objectives, with no precise assessment of social or economic contributions of the schools attempted.[5] Of course, the 'social approach' takes into account current demands for education and may make future projections (of demand) by considering population changes and changes in the national goals; thus if they are to be implemented, plans arrived in this manner are subsequently modified in keeping with resources, or, as resources become available.

This method of planning is said to have many weaknesses in the sense that it tends to show up the problem of judging education's peculiar contribution to development. For one thing, it gives scant attention to the fact that knowledge, skills, and values are acquired in a variety of in-school as well as out-of-school contexts. For another, it tends to overlook the reality that an educated population will not always guarantee acceleration of development or bring about productive factors, such as manufacturing plants, simply

because more skills exist in the economy. Most arguments stress the weakness that enough weight is not given to non-economic factors such as social structure and individual attitudes, which are equally influences on development as well as goals themselves.*

In alluding to West Indian education systems, Professor Figueroa notes that one of the weaknesses of educational planning in this region is that they tend to be the planning of places, equipment and buildings - all necessary things of course - but with little feeling for realities in the societies, or, the urgency of studying just as carefully as population figures and the acquisition of financial resources, the nature of the activities with which education is to be concerned. Consider for example, the method of

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*Countries using the social method, it is said, will identify long-range targets, but the goals of education are not based in any measurable way on the contribution of schooling to the noneconomic aspects of the 'good life'. Rather with some knowledge of the needs of development, some insight into the factors that accelerate and inhibit educational expansion, and a commitment to education as a human right, a consensus is reached on reasonable expectations. (Adams and Bjork 1969: 145).

The criticism is not a call for precise measurements regarding the way education may contribute to national development - particularly to the noneconomic aspects - only that, if education is to serve development, there should be considerations other than economic, or say, manpower requirements. For instance, Adams and Bjork say "assessment of needs which gives consideration only to education in quantitative terms, is exceedingly crude". On the other hand, Figueroa points out that any education which only aims at turning out "a certain kind of labour force" is likely to be inefficient even in its limited aims, because "educating for manpower and not for manhood" may end up in frustration when the products are not able to get what they were trained for. See e.g. Adams and Bjork op. cit. p. 153; Figueroa J.L. op. cit. p. 89.

expanding secondary education (particularly junior secondary schools) and the reasoning behind this. According to the "New Deal", manpower requirements, or the training of personnel for industry were involved in the decisons for expansion. But it is now clear that junior secondary schools could not really train people for industry in Jamaica. We are told, for instance, that foreign sources would only lend money for secondary education, but even though the Independence plan called for expansion of technical schools[6] and the "New Deal" had plans for bilateral and comprehensive schools;[7] expansion did not take these forms. Presumably, without adequate funding, or possibly on the advice of foreign sources, the junior secondary school offered a solution. Whether it was a better solution, however, is certainly to be questioned; an economist who analysed the educational developments during the 1960s, for example, shows that in terms of national development at the time, a measure of adult education would have been more useful.[8] On the other hand, junior secondary education (aside from not being able to meet the island's demands for trained workers) was in many ways dysfunctional, for it appeared to offer opportunities which were quite unrealistic.

The point is that secondary education has traditionally been associated with entry into certain professions and some of the 'white-collar' jobs; therefore, to those who could not attain these positions, junior secondary schooling appeared to offer chances of doing so, but the graduates were to find that the jobs were not available to them.[9] It is not that

these schools were, or are, entirely unsuited to Jamaica, at any rate, they offer basic qualifications for those intending to enter teachers' colleges, and there is reason to believe that they would have been more purposeful if they were organized as originally planned; that is, as intermediaries offering part of the secondary courses which would be completed at the second cycle of the system. But the impression given originally was that they were offering complete courses, or secondary education, when in fact these were not in any way comparable to what the high schools offer.

A second point in connection with the social method is the assumption that the first task of the school system is to provide requisite skills and knowledge for enhancing the nations productivity. This is apparent in the courses followed by the new secondary schools and in the idea of "widening" high schools curriculum. The main issue involved here relates to appropriateness of the curriculum and the relevance of practical studies.

This problem is characterized in the following passage:[10]

> The practical subjects are thought to be necessary as a part of physical development and to give the young people an appreciation for the use of tools and to help overcome the phobia which many people have for activities which involve the use of the hands ...

The quotation represents a point of view regarding the role of vocational education which is one of the controversial curriculum issues on the international scene. It is hardly necessary to repeat that, in relation to development, although practical studies appear to offer a direct linkage with industry, formal

schooling is not considered the most appropriate setting for certain kinds of training. Furthermore, it cannot be concluded that only vocational courses have an eonomic return on their investment.[11] The argument for vocational education in Jamaica is that the country is mainly agricultural and with growing industrialization there is need for skills in these areas and also in commerce. No one will deny the usefulness of vocational education but there is increasing sentiment as well as research evidence to show that the faith in vocational education is unfounded because (a) the need for agricultural and industrial development does not demand specific vocational training at the lower levels of schooling; (b) general education and vocational education are not substitutes for each other and much of what general education offers is crucial to development;[12] (c) if unemployment is the problem, this is not necessarily checked by providing more vocational education because the problem is often a lack of job opportunities.* Another side to the arguments concerns comparative costs. In several instances, it has been proven that the cost of vocational schooling is twice that of general education although the returns to both types are about the same.[13] Hence, the suggestion that firms undertake the more specialized and costly aspects of training where this can be arranged. This is not

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*Also that as long as secondary education is the path to universities and prestige positions "good" students are not likely to settle for vocational education and this is not because they are averse to "getting their hands dirty" but simply because of the rewards offered to "academic" over vocational training.

to say schools should abandon occupational training but that they should follow a more realistic approach; meaning that a vocational sector can be a useful adjunct to the regular school system and can function well if: (a) the costs can be met; (b) if the incentives and opportunities exist for students who pursue the courses. But here again, there is the caution that the potential for skills training need to be constantly explored. Schools, admittedly, can perform more efficiently in providing knowledge and skills that are adaptable to instruction in classrooms, laboratories and in teaching workshops, but when it comes to those which require expensive or specialized equipment, and work experience the disadvantages of schools outweigh their advantages. For similar reasons, Philip Foster argues against the total mobilization (or reforms) of formal education systems for the purpose of specific vocational training. In suggesting strategies for development, one of his theses is that:

> ... training must be developed outside the schools through the use of auxiliary institutions with special vocational institutes being created in particular cases where endeavours can be closely meshed with on-the-job training and with actual manpower requirements indicated by the market for skills.[14]

As we have seen, Jamaica is now accepting the practicality of such ideas but what is being done with regard to their application is only a beginning; there is much further to go.

Turning now to equality of opportunity, we find this objective, and also that of social justice, closely associated with the approach to educational planning in Jamaica. The

educational changes were therefore very much concerned with these social goals. For example, the New Deal emphasized the following:

> ... education will be a unifying and not a stratifying force in our society. While equality of opportunity may still remain an elusive Utopian ideal, low status of parents will no longer be a barrier to education nor will it determine the social or economic or civic future of any child. As a result of this Educational Revolution, no Jamaican child will be debarred by the circumstances of his birth ... from qualifying for any position in this country.[15]

The concept equality of opportunity has many variants in the literature - one of which is certainly education for all who are of school age - but from the outcomes of the "Educational Revolution", it does not seem this goal has been achieved. Insofar as school fees have been abolished; a shift system instituted; provisions made for free school meals and other welfare services; early childhood education becoming a part of the public system of education; and so on, equality and social justice have been facilitated. These policy measures have removed many obstacles to education; but they have only affected the scale rather than the structure (of the system), the method, or the content of education. That is to say, in terms of equalizing opportunity, all sectors of the education system are open and accessible to students; (there is increasing enrolment to substantiate this for example) but where the reorganized system was meant to be a channel to equality in the wider society, there are reservations that this objective has been achieved because a number of studies support the view that, structurally, the system is not significantly

different from the way it was in 1960.[16] In 1975, for example, the Ministry of Education also estimated that nearly 11 per cent of the school population - aged 6 to 14 years - were not in school, and that only 47 per cent of grade 6 students were suitably equipped to benefit from secondary education. These would suggest that only a minority is getting the opportunity to be educated at the secondary level.[17]

Earlier notations in this study indicated that high (grammar) schools have traditionally been conceived as nurturing grounds for Jamaica's managers and professionals. Therefore, greater access to these schools is ipso facto increasing opportunity for mobility into the professional and managerial class; however, at least three sets of studies have argued to the contrary. They show that the school system does not increase chances for social groups outside the class (i.e. managers and professionals) to find a niche among that group.[18] Instead the structure of the education system is such that it reflects and perpetuates a balance of advantage in favour of those children whose parents are already in the professional class. Thus according to Kuper the education system has been adjusted to the structure of the society in the sense that it is divided into two streams: the main one, which embraces primary schools, all-age, junior secondary (now new secondary), comprehensive, technical and vocational schools, cater to those classes in the society who form the semi-skilled, the unskilled urban workers, the small-holders and rural farmers. On the other hand, the other subsystem, which is highly

selective and whose successful students go on to university, serve the wealthy business professional, the salariat and skilled workers. A further observation is that mobility between the "subsystems" remains low because of continuing competition for high school places despite the 70/30 awards which have reduced "evasion" for the quota places.[19]

Studies conducted at the Department of Education, University of the West Indies, confirm the previous observations in most senses and bring out ideas similar to the "correspondence principle" as explained by Levin's theory in the literature reviewed. Miller's and Dabek's (studies) in particular, attempt to show that high (grammar) schooling is conducted mainly in the upper and middle classes of the society, while the new secondary and all-age schools are attended largely by children of lower strata. Using parents occupations as indices of social class of children, the authors show that parents in higher professional and managerial occupations comprise the society's upper stratum; those in lower professional and the highly skilled categories comprise the middle stratum; while semiskilled and unskilled categories make up the lower stratum. Their findings suggest that private high schools cater mainly to upper class children; that between 51.8 per cent and 70 per cent of high school students are from the middle class homes and only 12 per cent from the lower classes. On the other hand, children from lower middle class, and lower class, predominate in new secondary and all-age schools.

They also suggest that changes within the education system came about because of prior changes in industry, in the political system, and on account of urbanization; thus only if one wish[illegible] to be 'far-fetched" could one say educational changes caused any changes within the wider social system. For example, developments in technical education, and what has been termed "widening of the high schools curriculum" were responses to technological developments in the economy rather than initiative on the part of schools. Therefore, it would seem reasonable to conclude (with respect to social changes in Jamaica) that the schools are agents of the social order and not the other way round.[20]

We turn now to the objective of creating manpower through the educational arrangements. It is sometimes said that educational plans are often reports rather than means for action; in our case the question of "creating manpower" may be an example of this "reporting" because although the objective to train manpower (higher and middle order, according to the Education Thrust) was stated, what would be done in that regard is not altogether clear. So far, attempts were made to reach the projected target of a thousand teachers annually; but other estimates, for example, six thousand workers for the industrial and commercial sectors of the economy, appear to be illustrations of what would be needed but not goals for the education system to work towards. There were indications [illegible] increasing the capacity of institutions such as the College of Arts, Science and Technology in

order to train students for employment in medical technology, telecommunications, surveying, and also specialist teachers for technical education - a programme which incidentally would cost J$722,250 in 1973/74.[21] But as with the expansion of teachers colleges, it was a matter of increasing student enrolment with a view to training more people to meet general demands.

This approach of course is not new for there are allusions (in the literature) to the fact that not all governments make explicit manpower forecasts; some only form "opinions" as to manpower needs when preparing educational plans, and some educators think it 'infra dig' that the education system should undertake industrial training with its main task of socialization and transmitting the cultural heritage.[22] The question however is not whether forecasts are to be made, but the extent to which they are going to be as systematic as possible based on what evidence can be marshalled about occupational requirements. In this sense, forecasts, as Parnes says, need not be extremely detailed in order to be useful for purposes of educational planning. In any case, it is doubtful whether the most confident forecaster could attempt to blueprint long-range occupational requirements; and even if this could be determined with some precision, enough would not be known about future occupational mobility to permit accurate forecasts of the labour supply.[23] But even where educational plans are inspired mainly by social considerations, some method of analysis is employed to differentiate among occupations requiring different amounts of education and between those requiring more

scientific-technical education and those requiring general education. This is of value in guiding the allotment of educational expenditures among the levels and branches of the education system.[24]

Now granting the importance of manpower considerations in the Jamaican approach to educational planning, the earlier suggestion by Staley would seem to offer some assistance in that regard. Two other approaches, one suggested by Roberto Moreira and the other by Professor Lewis would seem to be relevant to the situation. These do not appear to involve too many technicalities for estimating future requirements and they relate to the secondary level of schooling.[25] Based on the Latin American situation, Moreira shows that for developing countries, it is desirable to have ratios of 100:20:4 in respect of primary, secondary and advanced school personnel. Further that secondary education should be given to a percentage of the 12 to 16 age group equal to the percentage of the working population engaged in activities which require secondary education as qualification*. If we proceed with

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*Other economists and demographers, who have studied development in the Caribbean Area, suggest that the ratios have utility whenever it is desirable to relate educational requirements to technological development.
Jefferson, Owen; The Post War Economic Development of Jamaica (UWI, 1972: p. 267). Jefferson points out for instance that many African countries aim at ratios of 100:23:2 and Asian countries at ratios of 100:26:2.
See also Roberts, G.W. and N. Abdullah; "Some Observations on the Educational Position of the British West Indies" SES Vol. 14, 1965: pp. 144 - 154.

the assumption that the targets proposed for Latin America offer a resonable basis of comparison from the Jamaican viewpoint, then Jamaica should aim at comparable ratios for the different levels of schooling. In view of the recent reforms, it is interesting to note how Jamaica compares with these ratios.

Problems are posed in that regard, by inadequate data and the fact that many Jamaicans go abroad for higher education, this makes it difficult to keep track of the numbers; but demographic estimates and other evidence show that these targets were not achieved. For example, crude estimates for 1960 show that those receiving higher education, both at home and abroad were about 4,000, while those in primary and secondary schools numbered roughly 702,000 and 49,000 respectively. These figures would give ratios of 100:7:0.6.[26]

When junior secondary schools were introduced and more scholarships granted for university studies, the ratios increased to 100:12:0.8; that was in 1968. With further school expansion, the ratios (1975) were 100:18:1.2. But on the other hand, we do not know exactly how many students were in private secondary schools, and data for the working population who were engaged in "secondary-type" activities, or in activities requiring higher education, are not easy to secure. Were these known, no doubt the ratios would be altered but on the basis of estimates by both Jefferson and by Roberts and Abdulah, the number of students receiving secondary education have not been above 60 per cent of what Moreira suggested.

The addition of more secondary schools will in time change the ratios, but as new secondary schools cannot at the moment provide entry requirements for university, there will be a deficit at this level for some time.

Professor Lewis' approach links movements in the school population with requirements in the labour force. In his view, secondary schools supply the bulk of people who become technologists, secretaries, nurses, school teachers, civil servants, agricultural officers, and those who fill the middle and upper ranks of businesses and public administration. Therefore the proportion of the population needed in secondary schools is a function of the level of development.[27] In order to show what percentage of the 'age cohort', will require secondary education in developing countries, he estimates the proportion of jobs that will require secondary education as qualification and adjust his figures by means of three factors, two of which represent wastage while a third represent the percentage rate of growth in the number of jobs calling for secondary training. He settled on the arbitrary figure of 5% as "the percentage of the adult population holding jobs which call for secondary (grammar) school education in Jamaica, and 6% as the possible annual rate of growth (or expansion) of such jobs." He then uses the formula set out below to calculate the percentage of the age cohort who should receive secondary education. Thus:

$$x = \frac{n\ (a + b + c)}{m}$$

Where: x = the proportion of the age cohort to be recruited;
n = ratio of number of secondary-type jobs to adult population;
m = ratio of number of age cohort to adult population;
a = normal percentage wastage of nationals of the country;
b = abnormal wastage due to replacement of expatriates;
c = percentage rate of growth of the number of secondary type jobs.[28]

Lewis says the coefficient 'c' is probably the most difficult factor to assess, but applying the formula to the Jamaican situation based on the arbitrary 5 per cent ratio of secondary-type jobs to adult population, and the 6 per cent rate of expansion of secondary-type jobs; he reached the conclusion that 10 per cent of the age cohort required secondary education by the following calculations:[29]

$$x = \frac{0.05(0.02 + 0 + 0.06)}{0.04} = 10\%$$

Evidently it is intended that 10 per cent should be the actual number recruited into the labour force annually, (at least that is what the term age cohort seems to be suggesting). Now with regard to employment of graduates there is no way of knowing how many actually pass into the industrial stream each year because the Ministry of Education does not seem to keep records of this, nor does the Ministry of Labour specify what percentage of graduates are recruited annually. But in the absence of firm data, it would seem that the

proportion was low in the period 1960 - 1975 judging by the low percentage passes in the General Certificate Examinations, and by what other studies have found.[30] When we examine synopses of the socio-economic foreground subsequently, it will also be seen that quite a large number of graduates are lost through migration each year, particularly those from the levels above secondary schooling.

The foregoing methods are somewhat different from those of Staley's but like his, they do not attempt detailed analyses of specific types of manpower requirements but offer suggestions which could be refined, if necessary, to determine output at the level of schooling which the various governments have thought of expanding.

We can now move on to examine Jamaica's socio-economic foreground to see where there has been development and where we might locate possible relationships with education.

The Socio-Economic Foreground: A Synopsis of Developments in Jamaica

Historians who analyse Jamaica's modernization, agree that the years between 1938 and 1962 mark an important watershed in the island's history as the period was the interval, or turning point, for dramatic changes in the society.[31] The more important changes were perhaps the transfer of political power to Jamaican nationals and the lessening influence of ascriptive values such as 'class' and 'colour' in the society; but during the interval the island experienced other changes such as rapid urbanization, renewed

population movements, and also a measure of economic growth matching that of many developed societies. When these processes are analysed however, the underlying role of education is clear, though it is not easy to detect any influence from the system with which we are immediately concerned.

In the socio-political sphere, certain occurrences in the 1930s brought the Crown Colony Regime to an end, and cleared the way for self government as well as new relations among the social classes. It is not that efforts to move away from the old plantation structures were lacking before; but militant groups (of the 1920s) failed to achieve a more equitable society either because they were too 'thinly' organized to be effective, or because the governing executive of the day was too suspicious of any ideology which sought a greater measure of political freedom, or social and economic equality for the masses. Hence these had to await later developments.

The circumstances under which such concessions were granted were fortuitous and not always pleasant; they came in the wake of working class consciousness and expressions of nationalism which (almost overnight) gave birth to political parties and trade unions, and later to party-union structures that were influential in bringing the island to statehood.[32] The working class, more than any other, began spontaneous agitation and demands for better wages; these developed into strikes and island-wide riots (1938) and in turn gave rise to a middle class leadership which was

hitherto unknown in Jamaica. The initiative for leadership fell to personalities such as the late Sir Alexander Bustamante and Norman Manley who not only resolved the crises by attempting to secure better wages and working conditions for the masses, they used the opportunity to organize labour on a national scale in order to change the society itself.

This is not the place to describe events of the time, such as the rivalries, the alliances, compromises, interments and so on; it is sufficient to note that the unrest of the '30s did not attain the scale of earlier demonstrations because the leaders were now concerned with establishing political parties and helping to engender national attitudes which would lead to independence. They undertook what John Hearne calls "chores of negotiation" with the metropolitan government and "formation of assemblies of the popular will" that were to fashion a comparatively new society.

That society took shape in 1944 when the first general election under adult suffrage was called. It was an election which meant conceding full civil rights to the middle and lower classes, and one which saw the coming into being of a parliament based on Westminster lines but composed almost entirely of Jamaican nationals who were members of

one or the other party.*

The period from the elections to the '60s may be regarded as years of decolonization as the parties institutionalized their positions and built local support through the trade unions. Each ensured that social and economic change became political goals; and as they alternated in office, each attempted to promote agricultural development, industrialization, tourism and the mining industry, while attempting to reduce unemployment and advocating extension of education to wider cross-sections of the community on the realization that structural changes hinged on these schemes.

Political Development

The inherited political structure became one of the most stable institutions for Jamaica. So far there have been no coups in the island; there is freedom of the press; and every five years there are free elections based on a one-man, one-vote democratic system. Another aspect of

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*Only two parties emerged with parliamentary representatives in 1944, and this has been the trend ever since. One of these - the People's National Party (PNP), a self-styled socialist party - began as a middle class professional group; but with the establishment of its party-backed National Workers Union (NWU), it was able to secure working class support.

The other - the Jamaica Labour Party (JLP) is a declared defender of capitalism but has remained uncommitted to any particular course of action such as the laissez faire economics of free enterprise states; yet it is flexible enough, as one observer notes, "to draw on the radical socialist politics of the PNP. (Clarke, Colin; 1975:77). The JLP (which incidentally won the first elections in 1944) began as a trade union called the Bustamante Industrial Trade Union (or BITU) after its leader; it became a political party on the eve of the 1944 election but has maintained its link with the BITU.

political stability is the influence of strong professional groups - particularly the legal profession - who are effective intermediaries, and whose members are not bound by the influence of any one party. At the same time the parties have indirectly taught their following much of what makes a modern polity: they have taught them the process of voting; how to articulate their needs; and in many ways how to define and choose policy alternatives. It is in this sense that John Hearne speaks of politics as being the Jamaican's "history" as well as his "therapy" meaning that it has been both a process of teaching him "civic awareness" and one which is significant and necessary to the fulfillment of other communal actions. According to this analysis, politicians have been principal educators in both processes because where the press could, and can only do limited commentary on "the business of modern practical politics," politicians have had to live with the voters and cater to their demands for specific action while at the same time educating themselves in the nuances of the electorate.[33] In this type of interaction they have tried to raise the political consciousness and "broaden the understanding of the electorate."[34]

As there is no reason to doubt Hearne's analysis,[35] we could in all fairness say education had much to do with Jamaica's political development, especially as the organizations, which helped to bring about structural and psychological changes in the society, resulted from the efforts of

'educated men'. So far as is known most of them had their education in Jamaica or through the liberal and/or socialist traditions of European universities. Most, again, (at least in the early stages), were from the middle class, or they were business professionals in the society; but their closeness to the rank and file made possible a kind of political education which it is doubtful could be developed through socialization within the formal school system. Others may have been from less predictable occupations - for example those in the trade unions - but their political influence grew as they adjusted to the orientation of their leaders. But in any case, political development in the period with which we are concerned, did not depend so much on formal schooling as it did on the type of adult education that Hearne talks about; and if we wish to refer to the reorganization that began as far back as 1957 with Common Entrance, Colin Clarke's analysis of social change in Jamaica has shown that no national leader has yet emerged from this sector of the society.[36]

Economic Growth

Jamaica is one of the few 'new' states to have experienced a measure of economic growth in the period under review. The island's political stability and government's policy towards industrialization might have been responsible for initiating the process, but it is worth noting that the transition to self government came at a time when British economic influence in the West Indies was yielding place to

North America's. Therefore investments from United States and Canada found their way into Jamaica's growing industries, particularly the bauxite-alumina industry. Before the discovery of bauxite however, governments had enacted legislation (termed "incentive laws") which was designed to promote development, reduce unemployment and give incentives to foreign companies to invest in the island.[37]

As a result the following became leading sectors in the growth process: - mining (bauxite-alumina industry), manufacturing, construction, tourism and finance. Mining which was non-existent in 1950, grew so quickly that by 1965 the sector accounted for 10 per cent of the island's gross national product. Manufacturing overtook agriculture as the leading contributor to gross national product in 1959 and by 1965 contributed more to the gross national product than any other single sector. Tourism grew in terms of the number of visitors to the island and in the employment it generated. For example the number of visitors grew from 75,000 in 1950 to 316,000 in 1965, while expenditures in the industry increased from J$6.0 million to approximately J$46.0 million in the same period. The industry has shown fluctuations but up to 1972 it was employing 9,580 persons and generating outside employment for roughly the same number of workers. Construction has been evident in the growth of towns, housing schemes, shopping centres, and in the resort areas and hotel complexes established over the island.[38]

The above activities were associated with capital inflows from North America, but indigenous efforts have been

made to create the climate for investments and further economic growth. These are reflected in the growth of the financial sector. For example, in 1960 the Bank of Jamaica (Central Bank) was established, while commercial banking (at first limited to only three companies) now has nine operatives in the island. Some were subsidiaries of their parent companies in England, Canada or the United States, but they became incorporated as Jamaican companies during the latter half of the '60s. To take one example, the Royal Bank of Jamaica (1971) was a wholly-owned subsidiary of the Royal Bank of Canada, but within five years of its incorporation as a Jamaican company, 51 per cent of the equity was made available to Jamaicans. Among other financial institutions were: the Jamaica Stock Exchange (1969); the Jamaica Development Bank (1969); the Investment Fund or Unit Trust (1970); the Mortgage Bank (1971); the National Savings Committee (1971); all offered a full range of investment services within the short time of their inception.[39]

Other indicators - taken at selected intervals - give an overall picture of the island's economic progress in the period. Between 1950 and 1968 for example, the gross domestic product (GDP)* increased at an annual rate of 7.2 per cent. In absolute terms, the value (GDP @ factor cost) rose from J$723.1 million in 1967, to J$1,157.6 million in

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*That is, the total value of goods and services produced within the economy.

1972 or 9.9 per cent over 1971. Per capita national income (J$420.0 in 1968) showed an annual increase of 7.2 per cent up to 1975.[40] Table 6, p. 159, shows where further developments were experienced and what industries have been the leading sectors.

TABLE 6

Jamaica's Gross Domestic Product and its Components: 1962 - 1972

	1962 J$ Million	%	1968 J$ Million	%	1972 J$ Million	%
Agriculture, Forrestry and Fishing	63.2	12.4	77.5	10	105.6	9
Mining, Quarrying, Refining	44.2	8.8	100.1	13	141.1	12
Manufacturing	67.4	13.3	115.3	15	165.5	14
Construction/ Installation	54.6	10.8	94.9	12	130.9	11
Distributive Trades	77.6	15.0	102.3	13	160.3	13.8
Financial Institutions	n.a.	-	35.0	4	76.8	7
Public Administration	42.2	8.4	69.7	9	108.6	10
Other	102.0	20.0	189.8	24	268.8	23.2
Total	451.2	-	784.6	100.0	1,157.6	100.0

Sources: The Five Year Independence Plan p. 12; The Jamaica Economic Survey 1972 p. 138.

When viewed in the context of traditional indicators of growth, the performances listed are impressive, but there were drawbacks to the process. For example employment opportunities have not kept pace with economic growth; nor has the declining agricultural sector been able to recoup; and as a consequence of high unemployment and declining

agriculture there is an unequal distribution of wealth which has shown little signs of improving.

The employment situation is a complex phenomenon and we shall refer to it time and again, but looking at the whole picture of growth in relation to education, it appears that formal education, particularly the system and the level with which we are concerned, made little or no contribution to improving the labour force. It is fairly obvious that all the sectors employed trained personnel and many would have emerged from the school system but according to the available data there was no significant impact in manufacturing which employed only 12.7 per cent of the labour force up to 1972. The Economic Surveys show that the labour force remained fairly stable throughout the period, but even where there were fluctuations, for example in the sugar and and hotel industries, the influences tended to balance each other resulting in a relatively small change in the numbers employed. According to the information there was a steady decline in employment in the sugar industry, moderate increases in the bauxite-alumina industry, while employment in tourism increased by only 7.1 per cent over the period up to 1971 and by just 1.9 per cent in 1972. Appendix 15. The Bauxite-alumina industry incidentally is highly capital intensive: it engages construction workers, mining operators and workers for its ancillary activities such as agriculture and livestock rearing, but employment for the more technical operations is limited to a very small but highly skilled crew for local processing; the rest of the

operations are carried out abroad where advanced technology is available. When we look at the age structure of the labour force on the other hand this would indicate that it might possibly have been weighted in favour of older workers (35 - 54 age group) among whom there was least unemployment. Appendix 16.

Turning to incomes; available data show that the distribution was uneven between urban and rural sectors of the population and among households generally. Studies by Ahiram and by Jefferson for instance, show that average urban incomes in 1960 were 2.4 times that of their rural counterparts but more recently the disparity is four times as great.* Of course there are many reasons for the uneven spread - occupational differences and inheritance notwithstanding - but in terms of development the disparity has been attributed to productivity, the structure of wages, and to the nature of employment in different sectors of the economy. The new sectors, for example bauxite and manufacturing, are highly capital intensive. They tend to reflect the technology used and the methods of production and marketing which are suited to the countries from which most of the

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*Using 1968 figures as examples, Jefferson shows further that although per capital GNP was in the region of J$420.0, persons in the top 5 per cent of households had per capita incomes of J$2,500 which is about the average for Sweden. The next 5 per cent had figures of J$1,100 which corresponds to Italy's level of incomes. The next 40 per cent had per capita incomes of J$450.0; while the lower 50 per cent with per capita incomes of J$110.0 corresponds to Kenya; (Jefferson 1972: 4-11).

investment comes; and for which (in terms of training that is) the local education system with the exception of the university and the technical college (i.e., CAST) is not geared. These sectors have expanded and even though they contribute substantially to gross national product, their employment quotient (in terms of labour) is low. That is to say, they employ an abundance of capital but only a certain optimum of highly skilled labour whose incomes are determined more by their scarcity value rather than by reference to productivity. But even apart from their being high producers and consequently large income earners, wages in these sectors are often based on what employers regard as a desirable standard of living for certain categories of employees; this usually has no reference to productivity in any meaningful sense, or to the sectors' direct or indirect effect upon other sectors in the economy.[41]

On the other hand a large portion of the labour force is still engaged in agriculture which generates only about 9 per cent of the gross national product. Furthermore, when account is taken of the tendency towards larger families in the agricultural sector it appears that per capita incomes in the sector are only about one fifth of the level prevailing in the rest of the economy.[42]

These inbalances, resulting from the structure of wages and the differential productivity in the leading sectors, have produced certain visible effects on the Jamaican economy. The most obvious is the 'demonstration effect' in

the sense that the high paying sectors give rise to a small wage elite which sets the pace for the movement of wages in other sectors. In other words, the effect of living standards which are based on the relatively high incomes of the new sectors, together with the effect on the cost of living of high profit margins in key areas such as manufacturing, tend to set the pattern for wages by triggering off claims for higher wages elsewhere. Because these claims cannot be met in the traditional sector several consequences which are characteristic of economies in development have been noticed.[43] In the first place, many workers choose to remain idle rather than work for the low wages prevailing in agriculture and in some of the minor trades. In fact the tendency has given rise to the paradoxical situation which is evidenced by frequent reports and arguments concerning a shortage of labour in the midst of unemployment. Secondly some sectors of the economy, notably the sugar industry, has been forced to mechanize in order to maintain a competitive position in the world market. An impact of this mechanization was the shedding of 10,000 jobs between 1955 and 1965; since then there has been steady decline in the labour content of the sector.[44] A third consequence flowing from the demonstration effect is the movement of workers. This is tied up with other aspects of population movement but when workers who are not gainfully employed in the rural sectors move into the cities, what was underemployment becomes open unemployment where their demands for jobs are not satisfied.

The foregoing outcomes only show that from the standpoint of employment-creation, development in Jamaica - particularly industrial development - has clearly not had the impact that was anticipated. What seems to be needed are more linkages between the sectors to create balanced development; and from our point of view, if education is to play the role of producing people for the new industries, linkages such as those suggested by Foster and Staley and the methods employed in countries like Sweden would seem to be appropriate. For example, one of the strategies suggested by Professor Rex Nettleford of the University of the West Indies, is a closer cooperation between governments and the bauxite-alumina companies who should be asked to set up institutions for local research in soil chemistry or soil science in order to build up indigenous capabilities for the industry; another suggestion of his is for the University of the West Indies to start restructuring knowledge to serve Jamaica's needs in this area.[45] On the other hand, Jefferson believes a more creative role is needed on the part of government, not only to ensure basic changes in the approach to education for production, but to establish linkages with the developed sectors so that part of the increased returns to capital can contribute to providing employment, especially for displaced workers.[46] Of course the latter suggestion calls for strategies which are outside the context of this study; for example, aside from a new approach to education for industry it would seem

that a conscious incomes policy would be in order if only to maintain a reasonable balance between the incomes of the different sectors which employ different levels of technology. However we have to leave such a discussion for other analyses and turn to migration which has implications for educational output in Jamaica.

Population and Migration

A recent feature of Jamaica's development is the rate of internal migration (that is intra-island migration) which is simultaneous with emigration. The former has increased urban growth, while the latter has meant the loss of many skills that Jamaica currently needs. A cursory glance at the island's recent population growth will help to clarify the points.

The natural rate of population increase in Jamaica rose from 15.3 per thousand in 1943 to 33.6 in 1960. The increase was mainly due to improvements in living standards and to a lowering of the death and infant mortality rates following the Second World War; but as a result of family planning measures, other government sponsored programmes and partly from emigration (to the United Kingdom and latterly to North America) the growth rate fell to 27.4 per thousand (1969) and thereafter to 23.2 per thousand in 1975; (see Appendix 1). Emigration to the United Kingdom removed roughly 200,000 persons between 1953 and 1963; and subsequent to the enactment of immigration laws (1965) which allowed more

foreigners into the United States and Canada, approximately 208,000 left for these countries between 1968 and 1973. At the same time intra-island population shifts between 1960 and 1975 accounted for the growth of Kingston and its suburbs, May Pen, Montego Bay, Spanish Town and about nine other towns in the island.[47] There was the element of natural increase in the accelerated growth of the towns, but the evidence suggests that it was more a function of in-migration which resulted from 'push factors' such as population pressure on the small holdings of rural farmers, land shortage, and from such employment factors as seasonal and/or underemployment, low agricultural wages and what has been termed the "social stigma attached to agricultural pursuits." Conversely there were the traditional 'pull factors'; for example employment opportunities and better living conditions, which induced the country to city movement.[48]

The question then is, what were the consequences of migration for the island? Given the state of the records, this is not always easy to determine, but existing data suggest that the effects on development have been mixed. In one sense the dislocation among families which is said to be consequent upon high rates of migration, have not

been marked;* but with regard to internal migration there have been certain obvious consequences. We have already intimated that the movement of workers to the areas of opportunity has contributed to a pool of unemployment in the cities where the expectations of the job-seekers often turn out to be illusory. But since many do not usually return to the rural areas the 'myth' that unlimited opportunities exist in the cities is maintained.[49] On this point, it is noteworthy that urban unemployment in the early '60s was 19 per cent, compared with 10 per cent in the rural areas. Of course, this is not the whole story, for there is the stigma attached to agriculture which means that many of the younger workers will not accept agricultural work as long as opportunities exist for non-manual work. Consequently, there is much truth in the arguments that there is a shortage of skills in agriculture. Some of the arguments may be spurious and without any basis of proof but the falling agricultural production does bear some relation to the quality of the labour force which it now employs.[50]

With regard to external migration a number of studies have tried to highlight the central issues facing contemporary Jamaica. One of these shows that the effects of

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*For example social workers whose case-load involves a percentage of children whose parents are abroad, report that dislocations have been less than expected because although the numbers are considered large, relations with foster parents are what they consider adequate; (Kuper 1976:11).

migration to the United Kingdom were two-fold. In one sense Jamaica was relieved of many unskilled people but lost out on educational expenditures in the sense that many nurses and potential urban workers left the island in that flow. On balance, however, Jamaica gained in the following respects: (1) population pressure was temporarily relieved; (2) per capita product and the rate of employment increased despite the loss of skilled workers; (3) remittances of the migrants were an important source of foreign exchange to the island.[51]

The situation is different in the case of migration to North America since the quality of the migrants meant the island lost more than was gained. Firstly, gains accrued in the form of remittances similar to those from the United Kingdom;[52] secondly, as more women migrated than men the potential for population increase was temporarily reduced; but as the "Economic Survey" (1972) shows the disproportion was not great since the ratio of female to male migrants was 54:46 in the period up to 1972. The age-sex classification however, shows that migration to North America was concentrated among the younger age groups and these involved a large number of professionals with skills that are needed in Jamaica. In 1971 for example, 50.4 per cent of the migrants fell within the 10 - 29 age group while 40.7 per cent fell in the 20 - 39 age group. Those in the 10 - 19 age group rose from 15 per cent in 1969 to 26.5 per cent in 1971.[53] The rate of migration tapered off between 1973 and 1975, but

then the levels of skills among the migrating population appear to be comparatively high when set against those in Jamaica. Table 7 compares the proportion of workers in various categories in Jamaica with groups of migrants to North America.

TABLE 7

Workers in Jamaica and Emigrants to North America: Percentage Distributions

		Emigrated to	
	Jamaica (1967)	U.S.A. (1972)	Canada (1971)
Professional, Technical Managerial	6	16	12
Clerical and Sales	11	14	24
Craftsmen and Skilled Workers	18	40	36
Semi-skilled and unskilled Workers	65	30	28
Total	100	100	100

Source: Economic Survey 1972 pp. 27 - 28.

Implicit in the above figures is the idea that Jamaica might not be deriving benefits from its own training schemes at least not to the extent that it should. The situation is more serious among the highly trained where the 'drain' is critical. For example Buffenmeyer shows that in 1967 Jamaica lost 780 university graduates; in the same year 610 were produced, but in the following year another set (not specified) emigrated. He further estimated that the investment gain to the receiving countries from 710 university

graduates (1968) was in the region of $10.0 million (U.S.).[54]

It should be taken into consideration however that Jamaica utilizes the services of foreign university graduates; in which case the country might just be compensated for the loss of nationals. The only problem is that this type of personnel usually works on contract, thus it is debatable whether the temporary nature of their employment can altogether balance the loss of nationals. In fact the second Five Year Plan, in its projections of manpower balances, claims there is a deficit of over 22 per cent in the professional and managerial categories thus it does seem that the balance is not really maintained. Of course the University, the Technical college (i.e., CAST), the School of Agriculture, and community Colleges are geared to producing a specialized elite which could fill most of the areas where the shortage is critical, but then expansion is lagging in these areas. Some effort has been made within the last decade to expand these institutions but the output of the university in 1975 was 519 Jamaicans from nine faculties, while that of CAST was only 500.[55]

When we take all the above into account, it does not seem that the education system can produce enough skills (let alone replace what is being lost) in the short run. Therefore if development is to be a serious intent, any rationale for this kind of policy has to be based on long run considerations and of course heavily dosed with considerations for adult education. On the point of migration

itself, it is clear that the island has been experiencing many features which are characteristic of developing societies throughout the world, but in a more extreme form than many. The early stages of migration from the island might have been beneficial but the later waves have increasingly removed much of the needed skills whose cost of training the country had to bear. But this seems to be one of the paradoxes that developing countries have to live with: the poor subsidizes the education and training of professionals for the rich; in this case however, the 'drain' appears to be operating in such a way that more trained people are being exported than are produced. Looked at from the other angle, the movement from farm to the towns is such that within a generation an almost rural agrarian society is becoming about a third urban even though most of those who move to the cities cannot find employment.

All these movements generate and reflect social changes; they may be functions of development but not all are in a direction which is desirable, for as indications are, some seem to hold potential dangers for further development.[56]

Summary and Conclusion

Throughout this work we have been examining educational change and development. The first theme has been concerned with the problem of reorganizing education systems so that they function in the service of development; while the second focus has mainly been the objectives or goals of development. Development itself as we have seen, is a

complex process; the goals which embrace all aspects of a nation's cultural life involve characteristics that are widely shared, and which are more or less drawn together under the concept 'modernization'. Economic growth is crucial in the respect that it is the foundation for achieving further goals; but to achieve a measure of economic growth, it is essential to have both a growing cadre of highly qualified persons who can effectively mobilize resources, and also those who have the skills needed in growing industrial concerns.

It should be noted, meanwhile, that modern analysts no longer view development in any compartmentalized sense but essentially as a process of sociological change. Some contend that factors such as savings and investment (or rather the propensity to save and invest) are in the end not economic but psychological factors;[57] and a view now gaining ground, is the value of linking economic theory with psychology and with sociological analyses when building planning models.[58] In the analyses of development, however, much stress is laid on technological change which accompanies increasing application of scientific knowledge and greater division of labour. There is recognition that specialization increases with modernization and that this is necessary if certain tasks are to be done efficiently. This aspect of the dynamics of growth and development indicates a future direction for the mutually supporting processes of education and development in newly formed states.

Much emphasis is also laid on values and attitudes which are considered indispensable to development, either as outcomes, or as support for the process. On the other hand, implications of the value of motivation, creative aptitudes, and abilities which make for achievement and act as incentives to economic growth (and productivity), or as catalysts to progress and modernization, can be read from the analyses of Curle's and Hoselitz'.

Improved education is itself a goal of development. Hanson and Brembeck for instance, have pointed to its aesthetic value by saying that education should not only be conceived as functioning to serve economic ends or goals because there will always be an element that cannot be translated into either costs or revenues, but which nonetheless gives education full meaning by permitting one to appreciate "a quintet by Mozart" or "the song of a night watchman in a Dahomean village."[59] Aside from its aesthetic value, education can improve the 'quality' of occupational knowledge and skills; in this regard, the policies of governments may exert influence on the educational sector, and it in turn will directly or indirectly influence economic and social development by raising the productivity of 'human capital' invested in the economy, or by helping to develop attitudes that make for increased efficiency.

Development policies are therefore concerned with education in all its aspects; and efforts will be made to translate the targets or the objectives of development into

structures to which the education system, and the administrative mechanism behind it, can relate. In general, considerations for educational improvement will mean adequate financing; attention to the appropriate content of courses, methods and materials concerned with learning; the flow of students through the system; teacher recruitment and training; research and experimentation; and even adequate construction of school buildings. With the exception of research, this has been the context within which the problem of reorganizing Jamaica's education system was considered.

Now it is comparatively easy to conclude that more schools should be built; more teachers trained; more students enrolled; but deciding what schools should do to bring about desired results - especially when the education given should make resourceful and competent citizens who can realize their own potential and contribute to the development of the society - is much more difficult. In our brief survey of developments in Jamaica, for example, we did not detect the relationships that the planners intended. If the Economic Surveys are correct, any contributions made to industry by way of trained personnel was not all that significant. Regarding how the system should perform relative to social questions, the current Prime Minister has made overtures that the country is not at ease on questions relating to educational opportunity or the psychological problem of class divisions within the society. As to attitudes to work

(which on the one hand involves development of a work ethic, and on the other, acceptance of "all kinds of work" as validated by the realities of group need) the school system has not been effective on these in his opinion.

With respect to the way the education system should address itself to manpower needs, he has noted that if the island is to provide skills to build a modern economy, it should:

> ...begin with a radical restructuring of the training content of the system. Architects, engineers, ... cost accountants, statisticians, computer analysts, soil chemists, agronomists, farm managers, business administrators: are the kinds of skilled personnel indispensable to a modern economy. Therefore, before even thinking of expanding available school plant, (it) should consider what kind of early education will best prepare an adequate supply in these areas.[60]

From the statement we gather that those who are responsible for the design of the system should reconsider their approach relative to what the schools teach; to which students and at what level; if only to ensure the relevance of education in the circumstances and to meet

the demand for skill training.*

Of course both the New Deal and the Education Thrust made bold attempts to address some of these problems; but this is only a start. If the orientation to industrial training is to be meaningful, this calls for approaches, more or less along the lines of international procedures which we have reviewed in this study. Secondly, if education is to develop values and attitudes which are conducive to participation in social life, as implied by the Prime Minister's social and political objectives, both the structure and contents of education should be designed to further these objectives. In other words, education must perform such a role by having a national base that enables it to reach all students; furthermore, the curricula and teacher

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*On educational matters as such, the Prime Minister is both perceptive and idealistic. He is aware that there are other and more fruitful ways in which the system can be organized, but a great deal of what he advocates will depend on other changes in the society. For example, he believes that the system can create an egalitarian society: in his words, "transform a stratified into a classless society" and provide skill training and attitude formation. This is a trifle optimistic if it means the education system alone should accomplish these things. However, realizing that political independence, and the building of a modern economy requires skills as widely separated as cost accounting and computer programming, seems more practical. Thus, he talks about manpower needs and suggests "hardheaded" analysis to determine requirements. For social change, he advocates scientific study of attitudes so that one can evaluate how far the present social complex is in keeping with long term objectives. Finally, he sees the need for an adequate supply of 'good' teachers who should be involved in the planning of education since they (teachers) can bring special knowledge of conditions to the exercise and in any case will be required to carry out the plans.

education must be oriented towards these ends. Thirdly, as schools alone cannot be effective in achieving social goals, suitable changes in public policy and the social environment - perhaps as indicated by Levin's analysis in Chapter Three above (p. 71ff) - should support reform efforts within the system. It should further be clearly visible to all concerned that the society and education alike are structured on the values they are asked to cultivate. For example, if the education system is to provide equal and fair access to the best secondary education and promote equality of opportunity as the "New Deal in Education" intended, then provisions should be made for everyone to get "the best education." But, as shown in Chapter Four, roughly 28,000 students at the secondary level and over 90,000 at the primary level could not find places up to 1975. Any system that does not provide for equal and fair access to education for whatever reason - social, economic, ethnic, religious or otherwise, is a negation of these values.

Conceivably, resource constraints may limit access to secondary education and to higher education for some time; if that is so, then universal basic education assumes added importance on the grounds of equity and national

interest.* All students should have at least enough basic education if only to make the future population literate, and to give those with ability a fair chance to compete for opportunities of further education. Talents are randomly distributed and can only be discovered when every child has an opportunity for education. Either way, both equity and national interest warrant an adequate scheme of financial support so that those in lesser socio-economic circumstances are not debarred from getting education and - for those who can - to proceed to higher levels. Universal basic education thus emerges as an area deserving priority in the new design of the system of education.

Now, the fact that education is free in Jamaica and access is open to all sectors, this seems to hide the wastage at both primary and secondary levels. Ironically enough, education is an ideological support of the social system in the sense that it (the social system, that is)

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*In any event, the wisdom of having separate sectors for secondary schooling does not seem sound. Perhaps it is a case of what Dudley Seers says (see Chapter Three above, p. 64); in which case it would be a matter of having an elite sector to produce the first-class politicians, doctors, teachers, scientists, engineers, priests, managers, businessmen, and the like; all of whom will be needed in the "developing society," and whose preparation cannot be left to chance. Thus, if this calls for a measure of differentiation in the system, that will have to be accepted, no matter what contemporary sensibilities are. But clearly, the selection for special training (if it is to be done) should be on the basis of ability, not on the structure (of the system) which inadvertently denies access to the sector where there is every likelihood of discovering abilities that will be needed in the future.

rewards merit, and since education is a prerequisite for high occupational positions, these can be justified as having been won by meritorious performance in an open competition. The only problem is that some never get the opportunity to enter the competition. Furthermore, the idea that education is normally the consequence, not the cause of high social or occupational position, is apparently not generally recognized. Thus the hopes pinned on education, for mobility reasons - especially by the 'deprived' - are sometimes unrealistic because with all the changes, universal education in the larger sense of basic education for "all citizens" is still a distant goal. If development and utilization of human resources are therefore to be central strategies in planning future development, a radical change in the concept and structural design of the education system is indicated.

The question then is what sort of restructuring would one recommend? In Chapter Two, it was shown that there can be no general answers to such questions. Some of the failures and disappointments which have arisen when development educators try to make suggestions for developing countries have led Hanson and Brembeck to say that planners would be well advised to maintain attitudes of humility about what education can be expected to do, since formal systems cannot by themselves reshape society in a modern

image.* On the other hand, Huq reminds us that a country will have to design its education according to its growth strategy, its values and life style and according to its needs and conditions.[61] Therefore, in terms of its aims and from what we have seen of the pattern of its development, Jamaica should design a system which, in concept, considers education within and beyond school age. The structure should be broad and flexible with a wide variety of courses and it should be designed to bring adults - whether literate or illiterate - under its purview. It should combine work experience with school experience (in realistic terms) and allow for full-time as well as part-time courses of study. Above all, education should be viewed as a lifelong process of renewal and regeneration of knowledge and skill and not only as ending at the termination of formal schooling.

When we really come down to analysing the situation in terms of educational needs, as these have been expressed by the planners (i.e., regarding what changes should be made in education to meet objectives in the overall plans for

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*They do suggest however that education for development should be "forward looking" and innovative and should be able to inaugurate new techniques. Also, that it should clarify the concept of modernization in such a way that it leads to consistent programmes of action rather than diffuse activity; but above all, it should avoid 'simplicism' or ideas of being the panacea to the solution of complex social problems (Hanson and Brembeck 1966; 503-504).

national development) Jamaica's aims centre around four basic ideas: one is economic - and this includes the manpower question, or development of knowledge and skills for the productive role of workers; a second is social in the sense that education should (a) develop values that are conducive to responsible participation in social life and (b) ensure the removal of traditional and occupational stratification from the society; the third relates to personal and cultural development and the fourth to development of a sense of national identity. Allied to these, it should be recalled was the notion of an integrated system of education within which to promote these ideas. However, we do not see an integrated system; and having surveyed what development and modernization mean, one could safely conclude that educational needs in these directions are beyond what can be met by extension of course options or adding more buildings.

The problem is akin to what an ILO study has to say about developing countries, that is "...they pay a high price for meagre results." This, of course, is not from lack of recognizing the value or the role of human resources in development but from being too eager to invest in the wrong sorts of people without an overall view of the problem, or criteria which would enable them to assess cost and benefits. The crucial problem, the study shows, seems to be lack of "a coherent policy specifying the tasks of various bodies which should be concerned in training with a

view to meet 'carefully determined' needs at the lowest possible cost."[62] In relation to Jamaica then, what is really needed is some form of an integrated system and a systematic deployment of resources for educating and training not only school children but all types of adult personnel. One suggestion for redesigning the system would therefore be to adopt a plan-strategy which calls first for investigating areas of training and secondly, a rational distribution of resources between all the possible areas, that is to say, between formal and non-formal and between full-time and part-time education, all of which should be viewed as integral parts of the national

system.* We will therefore conclude with suggestions for a particular institutional choice at the secondary level of schooling and some ideas for education beyond that level.

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*In this connection, it should be noted that the barriers between formal and nonformal education have largely disappeared in many socialist countries, and that they have established a close link between work and education. For example, in the USSR, approximately half of the students in engineering courses are enrolled as part-time students with regular jobs. Evening classes, correspondence courses, instruction by television and so on, make it possible for workers to study without abandoning their jobs; and leave of absence is granted to enable them to do laboratory work and appear at examinations (Beeby, C. E. (Ed) 1969; 267).

At the secondary level of schooling, Cuba has tried to integrate the productive life of the nation into the curriculum, not by trying to forecast manpower requirements, but by tying educational experience more closely to agriculture and to the economy in general. This is done through educational practices such as the escuela al campo (the school that goes to the country) and the circulos de interés (interest circles); both of which operate in the rural areas for extended periods - 12 weeks or more per year.

The arrangements are not meant to augment the labour force, but to give students practical experience in agricultural education or in areas which are relevant to their courses of study. The circulos de interés, according to Samuel Bowles, are analogous to extracurricular activities in the United States high schools, but are oriented exclusively around productive activities such as animal science, soil chemistry and oceanography among others. Not all secondary schools have such active programmes, but for those so engaged, the programmes serve as a bridge between the formal school curriculum and the students' later life in employment. Where for example, schools are engaged in agriculture, the chemistry class can devote itself to soil analysis with an interest and motivation reflecting both the wholeness of the educational experience and the real contribution being made to the productive capacity of the nation. See e.g., Bowles, Samuel; "Cuban Education and the Revolutionary Ideology" in Figueroa and Persaud op. cit. pp. 67-87.

In view of the objectives - integration, equalising opportunity and so on - we recommend a "comprehensive system of schooling." Jamaica has retained the "dual" system of secondary education which it inherited through example and colonial policy. Despite modifications (see Appendix 17), the structure is still such that one set of schools retains the "academic" or "general" orientation which was designed for students who would go on to university and most likely into professional or managerial careers; while the other set has an occupational-vocational bias leading to 'manual' occupations. This structure is largely in retreat in areas like Europe where it prevailed until recently. The move is now to comprehensive schools which are favoured in place of dual school systems or any other type of organization which reflects a stratified society. The object of comprehensive schooling is first, to ensure the highest possible level of education without attempting to assess vocational aptitudes prematurely, or perhaps irrevocably; secondly, to reduce inequalities as far as is possible while developing autonomous conduct and encouraging the emergence and expression of individual ability. Jamaica has been experimenting with the 'comprehensive idea' but has not fully adopted 'the system' to local conditions. The position taken in this study is that Jamaica would do well to set its sights toward this form of schooling for the following reasons:

Democratic: Experience has shown that when children are steered into separate schools - academic or vocational -

the selection is heavily influenced by 'class' background in the sense that the socio-economic and political status of families generally play a decisive role. Even where objective tests are used, the results reflect opportunities or deprivations in the home. The dual system also tends to perpetuate class distinctions and inequalities of opportunity, thus limiting social and occupational mobility, and by the same token restricting the rise of talented students from the lower strata.[63]

Benefit to 'late developers': Many educators feel it is premature to commit students at an early age to certain occupational choices, while precluding others by the nature of schooling. The feeling is that occupational commitment should be postponed to a later stage in view of the fact that some children develop later than others. Meanwhile, the educational programme should be a broad one and should be so designed to discover and develop latent aptitudes and interests.*

Best use of human resources: Perpetuation of differences in social class, status and of home opportunities may deprive the society of undiscovered talent. On the other hand, school policies which encourage the development of individual talent from whatever social strata are direct

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*Even at later stages, there can be possibilities for crossover or change of courses after starting in a particular direction. Such shifts in a programme are feasible in a comprehensive school and can be made real by counselling.

means of developing to the full the potential human resource on which modernization depends.

Efficiency and costs: In Jamaica, for example, it is the intention to have all new secondary schools staffed with university trained teachers. Although this is desirable, we find in the same town, or in the same vicinity, a few high schools (which are separately administered) having nearly 100 per cent 'degreed' teachers, while some of the new secondary schools are hopelessly understaffed. Personal experience has also revealed that some of the new secondary schools have the most elaborate equipment (laboratory and otherwise) but no staff to man them. Consolidation into a comprehensive school system could make possible certain 'economies' through reallocation of staff and lowering of cost per pupil taught, by enabling more efficient use of instructors, buildings, equipment and materials.

Educational content and cultural development: Many educators are of the view that a 'broad-based' system of general education, comprising elements of technical-vocational education, industrial arts, manual skills and general sciences as well as humanistic studies,[64] is best suited to personal and cultural development. It is further felt that students should be exposed to this 'mix' of courses whether they are headed for university and eventually into the professional or managerial careers or otherwise for manual occupations. The exposure to this kind of education and the development of proper attitudes to work it is believed will

make better producers, and citizens.

The educational institution which can best provide these educational experiences seems to be the comprehensive school, because a single set of comprehensive schools can serve both those who are headed for early employment as well as those who are university bound. For example, there will be no distinction or firm identification of the groups in the early years: both will share a common school experience; receive a common core of general education and participate together in extracurricular activities. Gradually on the basis of demonstrated aptitudes and interests, students will be guided into separate 'channels' or 'streams' which have different emphases, while opportunities for crossover from one channel to another remain open. The common participation of students from various social backgrounds in school activities - from classroom to games field - can also be valuable experience from the standpoint of democratic and cultural development.

This form of school organization could be most useful in Jamaica where (as the Prime Minister's statement above conveys) certain attitudes to work need to be changed. There are also attitudes about what gives status in the society and these seem not to be working in the interest of development (particularly educational development). Therefore, a comprehensive system of schooling could help to change some of these ideas.

The present secondary system for example reflects a difference (i.e., in relation to education for certain careers), which is a carryover from the past when 'education', as given in high schools, was to help students become either lawyers or civil servants, while that given in elementary schools, what were the practical training centres, and the technical school, was mainly for manual occupations. Not surprisingly, these notions have survived and parents and students alike continue to associate the functions of high schools only with preparation for certain 'white-collar' professions. One is not saying that careers in law or white-collar professions are inimical to the island's development, only that the narrow focus implies that the entire secondary system is not responding to development needs. The attitude may even be hampering efforts to make 'education' an instrument for progress. For example, it is difficult to persuade some students to take up careers in some of the areas to which manufacturing, or other aspects of development, give rise. One can think of categories of technicians in this case. The efforts to modify curricula have not produced any visibly meaningful relationships between schooling and industry. As to agriculture, it is doubtful whether the creation of special curriculum units to monitor its teaching has roused many students' interest in the subject. The 'stigma' attached to agricultural pursuits has been noted above, but those who have studied the problem recently find that even students who

are trained in agriculture often use the skills acquired to escape from the circumstances of farming.[65] If there is to be development as the educators and politicians wish, some way should be found to convince students that all cannot pursue 'office careers'. The economy may yet develop to the stage where it will be able to absorb the surplus labour that migration brings to the cities, or be able to cater to everyone's aspirations, but that is a long way off. These problems, incidently, seem to have connections with technical education and the way it is taught. The whole concept needs to be changed. Students should be shown the highly specialized and more 'scientific' side* and the subject needs to be placed into the curriculum of schools on an equal footing with the other courses. By so doing, and through more effective linkage with industries, more students could become interested in the specializations that the new industries demand. In any case, the handicrafts and 'manual training' courses as now given in the schools have not been very effectual in Jamaica's recent industrial growth.

Again, with the entire world becoming more work-oriented, certain kinds of work are no longer considered ignoble. The trend is now for work habits to be characterized by human values such as dignity, honesty, industry. Work is not only sought because it brings prestige. There is, of course, the question of sheer economic necessity, but then there are other values involved. A piece of work

*Of 'technical education' that is.

(job) well done can be a source of inspiration and satisfaction even above monetary rewards.

Some of the concepts and aims of secondary education therefore need to be reevaluated in the changing social and economic context. One cannot be absolutely certain which form of schooling will be most suitable for incalculating these value attitudes; but it is the view of this study that a comprehensive system (perhaps modified to suit Jamaica's conditions) would help to promote better attitudes to work and through its organization, it could also be helpful in broadening ideas about the educational process, its purpose and possible benefits.

Adult and Higher Education

In the interest of its development programme, Jamaica should also give more weight to education at these levels. The first, in our context, refers to all possible means that can be devised to upgrade the knowledge and skills of working adults. These may include part-time courses or literacy classes which are meant to upgrade elementary reading skills. This is not meant that all and sundry means will be used at once, but that the most practical and economical will be used.

Higher education relates to 'education' as given in institutions above the level of secondary schools up to university. In the Jamaican context, these would include community colleges, technical colleges, as for example, the

present College of Arts, Science and Technology, the School of Agriculture, teachers colleges and the University.

In the case of adult education, most analyses which deal with international practices - as related to training and education for industrial and social development - show that there is more value in upgrading adult skills, and suggest that methods such as part-time course of study can lead to effective results in this sector of the society. Both Staley and Lewis, we can recall, have shown that there is a good case for making use of available resources in this connection as the results to be achieved from working adults are more likely to be reflected immediately in productivity and higher incomes. The increased income stream makes possible higher consumption and the possibility for more investments in education* as well as other development activities.

Again, as comparatively young adults, on the average, are more likely to be receptive to new ideas, they appear to learn more quickly; but more important, they have a number of years of working life ahead of them during which they can be productive as a result of their training and education. Provided the incentives and rewards are sufficiently attractive, both society and the economy stand to benefit from investments in this sector.

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*C. F. Zymelmen above, Chapter Three

Another argument in favour of this type of education is its realism in the sense that in-employment, or on-the-job training are likely to produce the immediate results for which it is intended. It is probably the most suitable way of setting the linkages between education and training which have been mentioned throughout this study. Again, the skills and methods of production that can be imparted to young adults are likely to be those in vogue, or those which are being introduced, rather than outdated technologies or methods so new that their use would be limited.

It may be of interest to note that Jamaica has now begun community work along these lines under the aegis of the Ministry of Youth and Community Development and through the JAMAL Foundation programme.* Both of these compare with Cuba's escuela al campo in the sense that they are campaigns against illiteracy or are symptomatic of the importance of education for community development. Both programmes (particularly the second) are relatively new thus it may be some time before their effectiveness can be evaluated but each appears to be producing results.[66]

All in all, it seems highly probable that any investment in updating the education of those already in occupations and who have experience on which to build further learning would yield higher returns. In terms of cost, it might perhaps mean lessening the expenditures on some new secondary schools, but it would be a worthwhile policy

*JAMAL = Jamaican Movement for the Advancement of Literacy

measure because in some new schools, equipment use is probably not being maximized, and in any case, the investment appears uncommitted to inexperienced persons.

Higher education is warranted by the functions it is intended to perform. It is at this level that reforms in the content and methods of education can be spearheaded. It is at this level also that research can be undertaken and advanced studies pursued. Another function at this level would be to apply whatever knowledge is gained in helping to solve social and economic problems. On the other hand, higher education should help to promote technological changes and supply much needed expertise in industries such as the bauxite-alumina, sugar, and allied services. Higher education also gives scope for creativity and innovation which are real forces behind change in the society. Above, all higher education is warranted by the reason that most teachers are produced at this level. A great deal of what can be accomplished in the quest of education and training for development will depend on how 'good' teachers are. Therefore, producing "quality" teachers should in any event be a first priority.

Conclusion

The foregoing suggestions will of course depend on available (financial) resources. In this regard, we should note the realization (in Jamaica) that national spending on education should be increased. One evidence is the raising of allocations from J$61.0 million in the 1972/73 school

year to J$154.8 million in 1974/75. There is also continued international support from agencies providing loans. This places Jamaica within the 5 per cent of gross national product which is a target suggested in strategies for educational expenditure.* However, the problem does not depend on the amount of money had as the ILO example above implies.[0] What will be necessary is a proper ordering or reordering of the priorities and the plan for development. Thus, if a country knows what it wants to do, it should be able to make intersectoral adjustments as necessary. This goes for the use of foreign aid as well. A well worked out policy with foreign aid, for example, should allow for rational use of the funds and avoid wasteful spending. For example, if the country needs primary schools with sufficient teachers to man them, then foreign aid should be directed in that channel. If the education is to be adult

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*The 5 per cent is a calculation based on figures in the Economic Survey (1972). However, some development educators feel this target does not have a rational basis as guide to what financial input is necessary to produce a desirable output from the educational sector. The feeling is that the relationships to GNP is more meaningful for 'developed' countries where a given ratio means more money in absolute terms. Again when developed countries talk about spending a portion of GNP on education, this is not as a result of setting targets in advance but simply because the investment is necessary to meet educational needs. In which case, the expenditure bears a meaningful relationship to "changing educational needs" in the society. The idea of setting targets in 'developing' countries reflects the traditional notion that education can grow only when the economy grows and not vice versa (see e.g., Huq, Muhammad S. 1975: 208).

[0]And here we may recall also that expenditures on junior secondary schools were not very fruitful (in the '60s) in terms of training people for industry.

education, the same consideration holds. Of course all this means proper discussion and mutual understanding, and it need not involve the dictates of foreign agencies who are accustomed to falling back on known and proven methods which often mean solutions devised for a different culture with different sets of socio-economic problems.

The question of priorities and designing plans are of course large ones - so large that intricacies are very often ignored. Here we come full circle to the point with which we started, that is, harnessing the forces for change and "development" through the planning apparatus.

It is important to note that not only must priorities be determined, but the exercise must be done practically and with much thought. There should be agreement on what changes are necessary and how they are going to be tackled.

In this case, planning becomes a necessary exercise, but it should spring from careful work on the priorities, because it is easy to confuse plans with planning, for plans are but documents while planning is a continuous process involving constant measurement of social and economic benefits.[67]

It should also be realized that development cannot be accomplished all at once but whatever is done should lay sound foundations for what is ahead; it should generate confidence among the citizenry and all interested parties for education cannot be considered away from those for whom it is designed to affect.

Finally, since development is a worldwide problem, it is possible to study the process in other areas with similar problems so as to understand what principles may be at work. In the case of educational activity, it might be useful to know something about how it is helping development in areas where the socio-cultural situation is similar and calls for a great deal of realism.

In making this last suggestion, it should be noted that we are not saying differences do not exist. All countries will have some pattern of education and will prefer what they know; however, there are bodies of knowledge in the world at large which are objective and relevant regardless of the environment or circumstances. Education as Brembeck showed is no panacea, but it can do much provided plans for action are carried out with responsibility, foresight and much effort.

APPENDIX 1

(A) DEMOGRAPHIC STATISTICS 1960 & 1969 - 1975

Year	Mean Population	Annual Percentage Rate of Growth	Birth Rate (per 1,000)	Death Rate (per 1,000)	Crude Rate of Natural increase (per 1,000)	Infant Mortality Rate (per 1,000 live births)
1960	1,631,700	1.6	42.4	8.8	33.6	51.0
1969	1,843,800	1.5	35.1	7.6	27.4	33.4
1970	1,869,100	1.5	34.4	7.7	26.8	32.2
1971	1,901,100	1.1	34.9	7.4	27.5	27.1
1972	1,932,400	2.2	34.3	7.2	27.0	30.9
1973	1,972,000	1.9	n.a.	n.a	24.2	n.a
1974	2,008,000	1.7	n.a	n.a	23.4	n.a.
1975	2,042,700	1.7	n.a.	n.a.	23.2	n.a.

Sources: The Economic Surveys (Jamaica): 1970, pp 45 - 46; 1971, p. 7; 1972, p. 24; and, Demographic Statistics (Jamaica) 1977

(B) PERCENTAGE RACIAL ORIGIN OF THE JAMAICAN POPULATION ACCORDING TO THE 1960 CENSUS

Origin	Percentage Categories
African	76.8
Afro-European	14.6
European	0.8
East Indian	1.7
Chinese	0.6
Syrian	0.1
Afro- East Indian	1.7
Afro- Chinese	0.6
Other	3.1
TOtal	100.0

Source:Census of Jamaica, 1960

APPENDIX 2

MAJOR GROUPS OF ACTIVITIES REQUIRING QUALIFIED PERSONNEL
Adapted from Staley 1971

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1. Agriculture and Closely Related Services

   1. Farming
   2. Forestry
   3. Fishing
   4. Services closely tied to the foregoing

      - Special supply services (seeds, fertilizers, implements, etc.)
      - Special marketing services
      - Special advisory, technical, and research services
      - Special financial services

2. Industry and Closely Related Services

   1. Manufacturing
   2. Mining
   3. Construction
   4. Transportation
   5. Communications
   6. Electricity, gas, water
   7. Services closely tied to the foregoing

      - Special supply services, including installation-maintenance-repair of equipment
      - Special marketing services
      - Special advisory, technical, and research services
      - Special financial services

3. General Services

   3.1 Government, Politics, Law

      1. Public administration
      2. Legislative and judicial services
      3. Other services

   3.2 Commerce and Finance

      1. Wholesale trade
      2. Retail
      3. Banking, credit, and investment services
      4. Insurance services
      5. Other services

   3.3 Food, Travel, Tourism, Recreation

      1. Restaurant services
      2. Hotel services
      3. Other services

APPENDIX 2 (CONT.)

3.4 Health

1. Professional services - physicians, dentists, radiologists, etc.
2. Supporting services - qualified technicians and assistants, dental hygienists, pharmacists, laboratory technicians

3.5 Education and Training

1. The regular school system - primary, secondary, and higher education
2. Adult education programs and institutions
3. Educative services - in connection with agricultural and industrial extension work, public health work, community development

3.6 Social Communication

1. Editing and publishing of newspapers, magazines, books
2. Broadcasting by radio, TV
3. Communication activities of trade unions, employers' associations, trade associations, professional associations, and many others

3.7 Research, Advisory Services

1. Research activities in educational institutions, industry, government agencies, special institutions
2. Advisory and consultation services for agriculture, industry and commerce, others

3.8 Homemaking and Household Services

1. Homemaking, parenthood, child upbringing
2. Domestic service

Source: Planning Occupational Education and Training for Development, Eugene Staley (1971) pp. 22 - 24.

APPENDIX 3

(A) EXAMINATIONS AND SCHOLARSHIPS

The following examinations operate within the current education system:

1. The Common Entrance Examinations
   (a) at age 11+, for pupils from primary, all-age, and private preparatory schools for admission to high (grammar) schools. These examinations are set in January of each year.
   (b) at age 13+, for pupils from all-age, and private schools for admission to technical high schools. These are held in March.
2. The Grade Nine Achievement Test (GNAT) for admission (usually by 'transfer') to high (grammar) schools, technical high schools and to vocational schools.
3. The Jamaica School Certificate Examination (JSC) - approximately Grade 10. Recognized for admission to the Police Force, nursing profession, teacher training colleges and minor private business enterprises.
4. The General Certificate of Education (GCE) Examinations: Ordinary ('O') Level, and Advanced ('A') Level:
   i) The Cambridge GCE 'O' and 'A' Levels, for students enrolled in high (grammar) schools.
   ii) The London GCE 'O' and 'A' Levels; serving all students in public sector or private candidates.
   iii) The Associated Education Board's GCE - Official examination of the technical high schools.
5. The London City and Guilds Examination; The Royal Society of Arts (RSA); and the Union of Lancashire and Cheshire Institute Examinations. External examinations serving students of technical high schools, The College of Arts, Science and Technology and other vocational institutions.
6. Additionally, examinations in Music are held by the Associated Board of the Royal School of Music, Royal Academy of Music; Royal College of Music and Trinity College (London). Examinations of the Royal Drawing Society are also held annually.

The Minister of Education administers the following scholarships, tenable at the University of the West Indies and elsewhere:

(a) Jamaica Scholarship (boys) Jamaica scholarship (girls)
(b) Jamaica Independence Scholarship (open) Jamaica Independence Scholarship (girls)
(c) Jamaica Centenary Scholarship (boys)
(d) Others include: Government Exhibition Scholarships; Agricultural Scholarships; The Issa Scholarship; Engineering Scholarships.

Source: Facts on Jamaica: Education, pp. 6 -7.

APPENDIX 3 (CONTD.)

(B) CAMBRIDGE 'O'LEVEL RESULTS: WEST INDIAN HISTORY (1969 - 1975)

Year	Type of School	Candidates Entering	Number Sitting	Passes	Failures	Percentage Passes
1969	Grant-Aided	2351	2312	1432	880	61.9
	Private Secondary	390	375	144	231	38.4
	Private Candidates	100	89	14	75	15.7
1970	Grant-Aided	2635	2589	1391	1198	53.7
	Private Secondary	324	313	152	161	48.6
	Private Candidates	84	76	21	55	27.6
1971	-	n.a.	n.a.	n.a.	n.a.	n.a.
1972	Grant-Aided	3279	3183	1994	1189	62.7
	Private Secondary	379	367	208	159	56.7
	Private Candidates	90	79	17	62	21.5
1973	Grant-Aided	3450	3326	1770	1556	53.3
	Private Secondary	415	409	191	218	46.7
	Private Candidates	125	111	27	84	24.3
1974	Grant-Aided	4075	3919	2158	1761	55.1
	Private Secondary	391	383	160	223	41.8
	Private Candidates	167	147	40	107	27.2
1975	Grant-Aided	2465	2419	1070	1349	44.2
	Private Secondary	410	406	202	204	49.7
	Private Candidates	143	122	32	90	26.2
1976	Grant-Aided	4473	4354	2340	2014	53.7
	Private Secondary	440	422	220	202	52.1
	Private Candidates	122	109	43	66	39.4

Sources: Facts on Jamaica: Education; Handbook of Jamaica, Volumes for 1971 & 1972; Statistical Yearbook, Jamaica 1977.

APPENDIX 3 (CONT.)

(C) "O" LEVEL RESULTS BY SELECTED SUBJECTS: 1974 AND 1975

Subjects	1974			1975		
	Entries	Passes	%	Entries	Passes	%
English Language	6,775	4,628	63.1	7,225	4,259	59.7
English Literature	4,325	1,773	41.5	4,511	1,902	43.3
W.I. History	4,679	2,480	53.3	5,047	2,359	47.8
Geography	3,319	1,294	39.1	3,260	1,153	37.5
Mathematics	4,409	1,499	34.9	4,984	1,831	36.74
Add Mathematics	554	343	63	674	296	43.92
French	457	283	62.1	408	287	70.34
Spanish	1,335	507	38.9	1,256	456	36.31
Physics	1,200	507	48.4	1,316	629	20.44
Chemistry	1,779	978	55.2	1,949	911	46.74
Biology	4,075	1,997	49.6	4,409	1,796	40.73
Needle Work/Dressmaking	168	42	25	220	57	25.91
Commerce*	--	--	--	1,252	415	33.15
Principles of Accounts*	--	--	--	778	203	26.09

*Figures for the last two subjects were obtained for 1975 only.

(D) "A" LEVEL RESULTS BY SUBJECTS: 1974 AND 1975

	1974		1975	
	Entries	% Passes	Entries	% Passes
Art	59	78	79	49
Economics	398	31	521	45
English	332	54	260	59
Geology	16	36	5	0
Geography	155	43	153	44
History	408	28	399	26
Mathematics	233	87	385	57
Pure Mathematics	38	38	24	58
Applied Mathematics	29	36	19	0
Chemistry	322	34	314	42
Biology	39	45	144	38
Botany	69	19	68	22
Physics	244	—	214	39
Zoology	257	41	163	35
French	52	48	70	60
German	—	—	4	75
Spanish	87	56	96	57

Source: Economic and Social Survey, Jamaica, 1975

APPENDIX 4

ENROLMENT DATA (BY PARISH) SEPTEMBER 1975

PRIMARY

PARISH	NO. OF SCHOOLS	NO. ON SHIFT SYSTEM	CAPACITY	AVERAGE ENROLMENT	SHORTFALL
KINGSTON	15	2	13275	17442	- 4167
ST. ANDREW	22	4	19285	29020	- 10535
ST. THOMAS	18	0	6502	6801	- 299
PORTLAND	10	1	3643	4728	- 1085
ST.MARY	16	0	5455	5951	- 496
ST. ANN	13	1	7172	8092	- 920
TRELAWNY	8	1	3547	3370	- 177
ST.JAMES	9	1	5973	6894	- 921
HANOVER	8	0	3000	3344	- 344
WESTMORELAND	17	3	8116	11690	- 3574
ST.ELIZABETH	28	0	10516	10886	- 370
MANCHESTER	9	0	4155	5612	- 1457
CLARENDON	33	2	16508	19103	- 2595
ST.CATHERINE	25	4	12946	16631	- 3685
TOTAL	231	19	120093	139043	- 18900

ALL - AGE

PARISH	NO. OF SCHOOLS	NO. ON SHIFT SYSTEM	CAPACITY	AVERAGE ENROLMENT	SHORTFALL
KINGSTON	12	1	9927	13569	- 3642
ST. ANDREW	52	5	27000	40816	-13816
ST THOMAS	25	0	9075	10452	- 1377
PORTLAND	34	0	8775	11614	- 2839
ST. MARY	45	0	14007	18830	- 4823
ST. ANN	51	0	17437	22118	- 4681
TRELAWNY	23	1	9676	12724	- 3048
ST. JAMES	28	2	11859	16761	- 4902
HANOVER	26	0	7541	11892	- 4351
WESTMORELAND	39	0	10837	15734	- 4897
ST.ELIZABETH	47	0	14358	20891	- 6533
MANCHESTER	50	1	20126	25250	- 5124
CLARENDON	52	0	19085	25287	- 6202
ST.CATHERINE	60	3	26806	36380	- 9574
TOTAL	544	13	206509	282318	75809

Source: Ministry of Education,Jamaica: Annual Report 1975/76 pp 33 - 34.

APPENDIX 5

CURRICULUM : PRIMARY SCHOOL

Curriculum offerings by Subject Areas and Related Activities	Allocation of Time per week to activities (in minutes)		
	Grades 1 & 2	Grade 3	Grades 4 - 6
Language Arts	675 (45%)	600 (40%)	525 (35%)
Mathematics	300 (20%)	330 (22%)	345 (23%)
Social Studies	60 (4%)	90 (6%)	105 (7%)
Science	60 (4%)	90 (6%)	105 (7%)
Physical Studies/Health Education	90 (6%)	90 (6%)	90 (6%)
Music	60 (4%)	75 (5%)	75 (5%)
Art/Craft	60 (4%)	75 (5%)	75 (5%)
Religious Education	60 (4%)	60 (4%)	60 (4%)
Supervised rest or Quiet time	75 (5%)	- -	- -
Supervised private study of "Homework"	- -	30 (2%)	60 (4%)
Miscellaneous Activities: Clubs, leisure time activities, patriotic ceremonies and observances	60 (4%)	60 (4%)	60 (4%)
Total	1500 (100%) mins.	1500 (100%) mins.	1500 (100% mins.

Source: The Five Year Education Plan p. 59

APPENDIX 6

COURSES UNDERTAKEN BY GRADE ELEVEN STUDENTS, BY PARISH 1975

PARISH	Continuing Education	Agriculture	Typing & Office Practice	Clerk & Salesmanship	Catering Services	Child-Care.	Dressmaking	Food & Nutrition	Hotel Services	Crafts	Auto Mechanics	Carpentary & Cabinet making	Electrical Installation	Drafting	Machine Shop and Welding	TOTAL
Kingston & St. Andrew	612	-	465	275	149	153	270	154	105	119	84	258	372	-	284	3,300
St.Thomas	144	30	116	24	4	-	53	79	-	22	-	74	71	27	5	649
Portland	156	17	59	-	12	-	-	-	-	102	24	43	66	1	26	506
St.Mary	99	27	67	3	43	-	37	-	-	-	-	62	-	-	21	365
St.Ann	253	58	110	58	65	28	108	84	-	111	85	74	-	-	10	1,044
Trelawny	73	38	-	27	39	-	34	-	-	6	-	10	30	-	14	271
St.James	142	51	61	20	-	98	53	59	86	17	54	73	104	-	17	835
Hanover	132	60	107	-	82	-	36	3	-	18	-	37	64	-	14	553
Westmoreland	320	41	150	26	30	94	127	27	-	55	32	58	161	-	127	1,248
St. Elizabeth	301	141	171	59	43	88	119	56	-	49	-	91	75	-	186	1,379
Manchester	163	23	111	18	71	32	108	86	-	63	48	75	84	-	-	882
Clarendon	326	103	153	20	58	121	194	118	52	98	-	144	174	-	122	1,683
St. Catherine	310	106	158	76	85	97	172	74	-	121	-	133	171	-	58	1,561
Total	3,031	695	1,728	606	687	711	1,311	740	243	781	242	1,153	1,446	28	884	14,276

APPENDIX 7

Work Stations in which students were placed are classified as follows:

CLERICAL:	
Local Government	(Parish Councils)
Commercial Banks	
Ministry of Pensions	(Local pensions offices)
Ministry of Finance	(Collectorates)
Insurance Companies	(Offices)
Commission Agents	(Offices)
TYPING AND OFFICE PRACTICE:	
Ministry of Education	(Head Office)
Local Government	(Parish Councils)
Ministry of Pensions	(Local Pensions Offices)
CHILD CARE:	
Ministry of Health	(Hospitals, Health Clinics)
Private Practitioners,	
Child Care Centres	
CATERING:	
Hotels	
Guest Houses	
Restaurants	
Supermarkets	
DRESSMAKING	
Textile Factories	
Dressmaking establishments	
CLERK AND MERCHANDISE	
Retail Store, Supermarkets	
AGRICULTURE	
Ministry of Agriculture	(Food Farms, Live-stock Farms Industrial Estates)
CABINET MAKING	
Manufacturing firms - Furniture making	
MACHINE SHOP & WELDING:	
Factories, Machine Shops, Garages	
ELECTRICAL INSTALLATION:	
Building Construction, Electrical Shops.	

Source: Ministry of Education, Annual Report 1975/76 pp 36 - 37.

APPENDIX 8

NUMBERS OF GRADE 10 - 11 TEACHERS BY COURSE

COURSE	GRAD.	SPE	T.T.	INTS	P.T.	NYS	
Continuing Education	124	-	667	60	43	57	
Agriculture	-	9	10		6	1	
Business Education	1	34	28		5	30	
Child Care	1	28	10				
Food & Nutrition		17	57		5	8	
Clothing		19	32		2	1	
Carpentry		46	15		2	-	
Electrical Installation	1	56	13		2	4	
Machine Shop & Welding		33	19		1	-	
Crafts		5	31		3	-	
Auto Mechanics		13	7		-	-	
Drafting		6	1		-	-	
							Totals
CONTINUING EDUCATION	124	-	667	60	43	57	951
VOCATIONAL	3	369	204	-	26	44	646
TOTALS	127	369	871	60	69	101	1597

Source: Ministry of Education; Annual Report 1975/76 p. 122

Key to Symbols

GRAD = Graduate Teacher

SPE = Specialist Teacher

T.T. = Trained Teacher

INTS = Interns

P.T. = Part-Time Teacher

NYS = National Youth Service (Volunteer)

APPENDIX 9

RESULTS OF COMMON ENTRANCE EXAMINATIONS 1971 - 1975

Year	Entries			Awards		
	Male	Female	Total	Male	Female	Total
1971	8,603	15,555	24,159	1,014	1,018	2,032*
1972	9,418	17,442	26,860	1,050	1,052	2,102*
1973	9,272	16,206	25,478	1,962	2,017	4,069
1974	10,950	19,749	30,699	1,889	2,893	4,782
1975	11,898	22,458	34,356	2,258	3,348	5,606

*In addition to those awarded free places in 1971 and 1972, the following grant-in-aid places were awarded:

	Male	Female	Total Places
1971	931	1,072	(2,003 + 2,032) 4,035
1972	906	1,008	(1,994 + 2,102) 4,096

Source: The Economic and Social Survey, Jamaica 1975, p. 240
Statistical Yearbook, Jamaica 1977, p. 232 ff.

APPENDIX 10

CAPACITY AND ENROLMENT IN SECONDARY HIGH SCHOOLS BY PARISH, SEPTEMBER 1974

Parish	No. of Schools	Capacity	Enrolment (1974)	Shortage
Kingston	4	3,500	4,437	937
St. Andrew	14	11,226	11,774	548
St. Thomas	1	405	731	326
Portland	2	1,471	1,559	88
St Mary	1	534	685	151
St Ann	3	1,398	1,618	220
Trelawny	1	325	340	15
St. James	3	1,939	2,341	402
Hanover	1	433	650	217
Westmoreland	1	730	841	111
St. Elizabeth	2	749	874	125
Manchester	1	775	805	50
Clarendon	3	2,198	2,432	234
St. Catherine	3	2,539	2,948	409
Total	40	28,202	32,035	3,833

Source: The Economic and Social Survey, Jamaica 1975 p. 239

APPENDIX 11

The following extracts from the Ministry's Annual Report (1975) shows the revised estimates of expenditure for the year - 1975/76:

RECURRENT EXPENDITURE

Item	$
Central Administration	4,624,533
Curriculum Development & Related Services	3,821,519
Teacher Education	9,750,383
Infant and Primary Education	42,331,906
Secondary Education	40,344,518
Further Education	3,858,213
Higher Education	14,107,776
Examinations	672,459
School feeding	1,436,251
Building Construction, & Maintenance	2,387,913
Library Services - General	1,099,709
Development of Art & Culture	622,782
Total Recurrent Expenditure	125,057,962
Less Appropriations-in-aid	8,000
	125,049,962

CAPITAL EXPENDITURE

Item	$
Teacher Training	2,574,201
Primary Education	8,588,122
Secondary Education	18,104,289
School Feeding	68,000
Further Education	808,246
Libraries	38,000
Residential Accomodation for teachers	175,500
Audio-Visual Aids	801,537
Technical Assistance, Staff training	66,667
Rural Education Development, U.S./Aid - Jamaica Govt. Programme	144,750
Book Store (Govt's)	60,000
National Development Agency	580,188
Total Capital Estimates	32,009,500
Less Appropriations-in-Aid	9,500
	32,000,000

Source: Ministry of Education, Annual Report 1975/76 pp. 5 - 10.

APPEXDIX 11 (CONT.)

(A) OVERSEAS TECHNICAL ASSISTANCE[1]

Assistance to Jamaica, in the field of education, is supplied partly by finances and partly in the form of skilled personnel. The supply of the latter is almost entirely from four countries: the United States of America, Canada, the United Kingdom and the Federal Republic of Germany. The flow falls into four main groups:

(a) Volunteers from special agencies with representatives in Jamaica:

(i) The Overseas Volunteer Service (VSO) in the U.K.;

(ii) The Canadian University Service Overseas (CUSO);

(iii) The German Volunteer Service (GVS) from the Federal Republic of Germany; and

(iv) The Peace Corps (U.S./PVC) from the U.S.A.

(b) Teacher-Trainers, Technical Teachers and Advisers, and Technicians from the Canadian International Development Agency (CIDA)

(c) Advisers and Lecturers for Inservice Training Courses from the Overseas Development Administration (ODA)

(d) Advisers and Technical Personnel, who are usually on short-term assignments in connection with particular projects from international and other bodies, for example, the World Bank.

[1] Facts on Jamaica:Education, p. 5.

APPENDIX 12

STAFFING OF SCHOOLS

	CATEGORIES OF TEACHERS						
	University Graduates	Specialists*	Trained Teachers	Pre-Trained Teachers	N. Y. S.** Workers	Pensioners	Volunteers
Infant	-	-	141	72	8	3	-
Primary	5	2	2,188	1,305	106	33	2
All-age	10	18	2,986	3,188	128	44	5
New Secondary (71 Schools)	290	652	2,232	621	27	6	3
High Schools (44 Schools)	1,354	303	603	136	-	-	2
Comprehensive (5 Schools)	79	35	92	32	-	1	-
Technical (6 Schools)	125	81	91	35	-	-	1

Source: The Five Year Education Plan p, 24

*Teachers with special qualifications in Technical/vocational areas and Music are classified as 'Specialists'

**N.Y.S. = National Youth Service Workers.

APPENDIX 13

OUTPUT OF TRAINED TEACHERS 1975*

Institution	Primary Teachers	Secondary Teachers	non-Interns	Total
Bethlehem Teachers' College	48	15	-	63
Church " "	47	69	-	116
Excelsior Community "	-	24	-	24
Mico Teachers' "	200	86	-	286
Moneague " "	127	-	13	140
St.Joseph's " "	117	-	-	117
Shortwood " "	121	92	-	213
W.I.Training "	-	-	24	24
Total	660	286	37	983

Source:The Economic & Social Survey, Jamaica 1975 p. 245

* Note: A trained teacher is one who has been certified by the Board of Teacher Education and gazetted. The table shows the output of such Teachers from Teachers Colleges and Education Departments of other Institutions in 1975.

Non-interns do a general 2 or 3-year intramural course while other students do 2 years plus one year's internship.

APPENDIX 14

As of January 1975, the distribution of teachers was 217 in infant schools, 10,096 in primary and all-age schools, and 2,524 in new secondary schools. The distribution of these, by parish, is shown the table.

NUMBER OF TEACHERS IN EACH PARISH

Parish	Infant	Primary	All-age	New Secondary
Kingston	66	755	210	307
St.Andrew	-	1,293	210	410
St Thomas	-	386	13	106
Portland	17	407	18	81
St. Mary	9	566	43	105
St Ann	26	677	40	148
Trelawny	6	324	17	57
St.James	27	523	47	138
Hanover	9	290	99	67
Westmoreland	13	582	68	214
St. Elizabeth	-	642	120	182
Manchester	17	727	19	124
Clarendon	17	968	90	314
St Catherine	10	1,027	146	271
	217	9,166	930	2,524

Based on the total enrolment in the schools at the time, the average ratios were as follows:

	Enrolment	No. of Teachers	Ratio
Infant Schools	13,762	217	1:63.3
Primary/All-age	428,208	10,096	1:42.5
New Secondary	80,254	2,524	1:31.8

Source: Economic and Social Survey, Jamaica 1975, p. 246

APPENDIX 15

PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY INDUSTRY GROUP: OCTOBER 1972

Industry Group	Percentage
Agriculture, Forestry, Fishing and Mining	33.6
Manufacture	12.7
Construction and Installation ..	6.6
Transportation, Communications and Public Utilities	4.1
Commerce	13.1
Public Administration	10.8
Other Services	19.0
Industry Not Specified	(0.9)
Total	100.0

EMPLOYMENT IN SELECTED INDUSTRIES: 1969 - 1972

Industry	No. of Persons Employed			
	1969	1970	1971	1972
Sugar (No. of Persons worked during crop)	61,132	58,277	54,726	52,172
Employment by:				
S.M.A.*	24,260	23,085	21,725	21,000
C.F.A.	16,000	15,200	14,300	13,900
Self-Employed	20,872	19,992	18,701	17,812
Bauxite and Alumina**	5,114	5,493	6,162	6,756
Hotels, Guest Houses, and Apartments; at 31/12/ 1972.	8,150	8,730	9,300	9,580

*S.M.A. = Sugar Manufacturers Association; C.F.A. = Cane Farmers Association.

** Construction and agricultural activities excluded.

Sources: The Economic Surveys (Jamaica), 1970, '71 and '72; sections entitled "Employment and Industrial Relations".

APPENDIX 16

EMPLOYMENT AND UNEMPLOYMENT: BY AGE GROUP AND SEX OCTOBER 1975

Sex	Age-Group	Total Labour force	Employed	Unemployed
Male	14 - 24	117,408	81,709	35,339
	25 - 34	89,393	78,208	11,185
	35 - 54	151,075	140,837	10,238
	55 & over	99,208	93,949	5,259
	Sub-Total	456,724	394,703	62,021
Female	14 - 24	92,921	42,400	50,521
	25 - 3	82,337	52,087	30,250
	35 - 54	124,983	94,618	30,365
	55 & over	51,325	42,705	8,620
	Sub-Total	351,566	231,810	119,756
Total	..	808,290	626,513	181,777

Source: The Economic Survey , 1972 p. 62

APPENDIX 17

ORGANIZATION OF THE EDUCATION SYSTEM (1975)

Stages or Types of Education	Age-Group	Institutions
Early Childhood or Pre-Primary	4 - 5+	Basic Schools a) Recognized b) Unrecognized c) Infant Schools and Infant Departments.
Primary	6 - 11	1. Primary Schools 2. All-Age Schools Grades 1 - 6 3. Special SChools for handicapped children.
Secondary	12 - 15 12 - 17 12 - 19 13 - 17	1. All-Age, Grades 7-9 2. New Secondary, Grades 7 - 11 3. High (Grammar)Schools Forms 1 - 6 4. Technical Schools Grades 8 - 11 5. Vocational Schools Grades 10 - 11 6. Comprehensive Schools Grades 7 - 11.
Post-Secondary or pre-University	17+-	1. Teachers Colleges 2. College of Arts Science and Technology 3. Jamaica School Agriculture 4. Community Colleges
Higher Education	17+-	University of the West Indies

NOTES AND REFERENCES

PART I : INTRODUCTION AND STATEMENT OF THE PROBLEM

Chapter One; The Problem

[1]Smith Raymond T.; "Culture and Social Structure in the Caribbean: Some Recent Work on Family and Kinship Studies" in Michael M. Horowitz; Peoples and Cultures of the Caribbean (1971) PP 449 - 475.

[2]Williams,Eric; History of the People of Trinidad and Tobago (PNM Publishing Co. Ltd., 1962) p. 282

[3]Manley, Michael; The Politics of Change: A Jamaican Testament (Ander Deutsch 1974) p. 3

[4]Reference here is to the influence of the 'church' and to the 'dual' nature of school systems in the formative stages of certain countries' education systems; for example England's, and that of Sweden which were much like Jamaica's. See e.g. Shirley Gordon; A Century of West Indian Education(Longmans 1963) Husen, Torsten; "Educational Change in Sweden", Comparative Education Vol. 1, No. 3, 1965 pp. 181 - 191; Baron , G; Society, Schools and Progress in England (Pergamon Press 1965) Esp.pp 1-15.

[5]Cf. Coleman, J.S.(Ed) Education and Political Development (Princeton 1965) p.3. In Coleman's terms, education for newly formed states is viewed as the "... the master determinant of change".

[6]The New Deal p.3

[7]See e.g. Bennis W.G. et al ; The Planning of Change: Reading in The Behavioral Sciences(2nd Ed) 1969); Centre For Educational Research and Innovation: Four Volumes entitled Case Studies of Educational Innovation (1973) Published by OECD/ Paris.*

Vol. 1, At The Central Level; Vol. 2, At The Regional Level; Vol. 3, At The School Level; Vol. 4, Strategies For Innovation in Education.

See also: Educational Policies and Trends in the Context of Development (OECD/Paris 1977); Havelock R.G.; The Change Agent's Guide to Innovation In Education (Ed, Tech. Publications 1973)

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* OECD = Organization For Economic Cooperation and Development

[8]For Case Studies in Seventeen Countries see CERI, OECD/Paris 1973, esp. Vol. 1.

[9]Figuroa, John; Society Schools and Progress in the West Indies (Pergamon Press 1971) p. 152

[10]Ibid

[11]Phillips A.S.; Adolescence In Jamaica (Jamaica Publishing House, 1973) p. 81

[12]Address to the Jamaica Parliament; Budget Session 1972, See Hansard Vol. 1, No. 1, March - July 1972.

[13]Ibid

[14]Kuper, Adam; Changing Jamaica(Routledge and Kegan Paul 1976) p. 71

[15]Miller, Errol;"Education and Society in Jamaica" in Figueroa P.M.E. & Ganga Persaud(Eds) Sociology of Education: A Caribbean Reader (1976) pp 47 - 66

[16]Husen, T.; Problems of Differentiation in Swedish Compulsory Schooling (Stockholm 1962) pp 1 - 2.

[17]Herne, John; (Ed) The Search For Solutions (Maple House Publishing Co. 1976) pp 24 - 25.

[18]"Education - Time For Massive Effort",Editorial; Daily Gleaner, Friday, June 1, 1973.

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* Similar comments appear in his book, The Politics of Change: A Jamaican Testament (1974) p. 142 and passim.

PART II: THEORETICAL CONSIDERATIONS

Chapter Two: Basic Concepts: Definitions

[1]See e.g. Adams, Don; Education and National Development (David McKay Co. Inc. 1971) p. 1

[2]Hanson, J.W. and Cole S. Brembeck; Education and the Development of Nations (Holt Rinehart and Winston, New York etc., 1966); also Modernizing our Schools, Curriculum Improvement and Educational Development (OECD/Paris Doc. No. 3145 Dec. 1966.)

[3]Debeauvais, Michel "Education in former French Africa" in Coleman J.S. op. cit. pp. 75 - 91.

[4]See e.g. Coleman, J.S. op. cit. p. 93: 'Functions' are defined as "observable consequences or characteristics that relate to the adaptation of a system, or to its maintenance and continuity". Characteristics which aid adaptation are termed 'functional' while those which weaken or lessen adaptation are termed 'dysfunctional'.

[5]See: Staley, Eugene; Planning Occupational Education And Training for Development (Praegar, New York 1971) p. 10.

[6]See e.g. Parnes, H.S.; Planning Education for Economic and Social Development (OECD/Paris 1973), p. 69.

[7]Staley op. cit. p. 10

[8]See e.g. Adams Don and Robert, M. Bjork; Education in Developing Areas (David McKay Co. Inc. 1969) pp. 20 - 46.

[9]Ibid p. 46.

[10]Coleman, J.S. op. cit. p. 521

[11]Lerner who is concerned with the problem of 'modernization' notes that rational planning"...is the 20th Century's mode of accelerating social change in 'less developed' societies. These societies, he notes, want to achieve in years what it took the 'developed nations' centuries of unplanned development to achieve. Therefore without the latter's evaluated experiences to guide the action - planning becomes both a challenge and an opportunity. See: Lerner, Daniel; "Modernization: Social Aspects" in Encyclopedia of the Social Sciences Vol. 10, (Macmillan Co., The Free Press 1963), David Sils (Ed.) pp. 386 - 395.

[12]Adams, Don (1971) op. cit. p. 2.

[13]Ibid p. 3.

[14]See e.g. Adams and Bjork op. cit. pp. 1 - 19; Horowitz, Michael M. op. cit. Section on "Land Tenure" pp. 199 - 305; Curle, Adam; Educational Strategy For Developing Societies (Tavistock Publications 1970); Levy, Marion J.; Modernization and the Structure of Societies Vol. 1, (Princeton, 1966) pp. 85 - 109.

[15]For this reason the term 'developing societies' or 'developing countries' - which convey the same idea - have been employed. The same procedure is followed in this study. Others, however, use terms such as 'Level II countries' or 'intermediate countries', for their descriptions. See e.g. Novack, David E. and R. Lekachman; (Eds.) Development and Society: The Dynamics of Economic Change (St. Martins Press, New York 1969) p. 2. Also Harbison F. and Charles C. Meyers; Education, Manpower, and Economic Growth (McGraw Hill 1964) Chap. 5.

[16]Nurkse, Ragnar; Problems of Capital Formation in Underdeveloped Countries Oxford; Basil Blackwell 1953) p. 4

[17]Lewis, W. Arthur; The Theory of Economic Growth (Homewood Ill. 1955) p. 9

[18]Huq, Muhammad S.; Education and Development Strategy in South and Southeast Asia (East-West Center Press 1965) p. 44

[19]Ibid

[20]Myint, H.; "An Interpretation of Economic Backwardness" in Agawarla A.N. and P. Singh; (Eds.) The Economics of Underdevelopment (New York etc. 1963) pp. 93 - 96.

[21]Hoselitz B.F.; "A Sociological Approach to Economic Development" in Novack and Lekachman op. cit. pp. 150 - 163.

[22]Lerner, Daniel op. cit. p. 387.

[23]Ibid

[24]Ibid

[25]Hoselitz, in Novack and Lekachman op. cit. p. 153.

[26]Curle op. cit. p. 69

[27]Hoselitz, in Novack and Lekachman op. cit. p. 151.

[28]Hoselitz, B. F.; "Investment in Education and its Political Impact" in Coleman, J.S. op. cit. pp. 541 - 565.

[29]Nurkse, Ragnar; "The size of the Market and the inducement to Invest" in Novack and Lekachman op. cit. pp. 91 - 96.

[30]Rostow, Walt W.,; The Stages of Economic Growth: A Non-Communist Manifesto (Cambridge at the Univ. Press 1971).

[31]Ibid p. 6.

[32]Ibid p. 59.

[33]Ibid p. 198.

[34]See e.g. Curle op. cit.; Hoselitz in Novack and Lekachman op. cit.; McClelland, David C.; "The Achievement Motive in Economic Growth" in Novack and Lekachman op. cit. pp. 179 - 189.

[35]Curle op. cit. p. 155 ff.

[36]Ibid

[37]Hoselitz in Novack and Lekachman op. cit. p. 154.

[38]McClelland in Novack and Lekachman p. 180.

[39]Ibid.

[40]Curle op. cit. p. 69.

[41]Huq, Muhammad S.; Education Manpower and Development in South and Southeast Asia (Praegar Pub. New York 1975) p. 53

[42]Coleman, J.S. op. cit. p. 521.

[43]Huq, Muhammad S. 1975 op. cit. p. 54.

[44]Ibid.

[45]See e.g. John Dewey's "Renewal Through Education" in Hanson and Brembeck op. cit. pp. 100 - 104; also pp. 105 - 115 in the volume.

[46]Staley op. cit. pp. 11 - 15.

[47]Ibid. pp. 17 - 18.

[48]Ibid.

[49]Huq, Muhammad S.; 1975 op. cit. p. 64.

Chapter Three: Education and Development

[1]Schultz, Theodore; "Capital Formation By Education" Jn. of Political Economy Vol. 68, No. 6, 1960 pp. 1 - 17.

_____; "Education as Investment in People: Returns on the Investment" in Hanson and Brembeck op. cit. pp. 126 - 136. See also, Lewis, W. Arthur; "Education and Economic Development" SES Vol. 10, No. 2 June 1961, pp. 113 - 127

[2]Huq, Muhammad S. 1975 op. cit. p. 70.

[3]Staley op. cit. p. 8.

[4]Smith, Adam; The Wealth of Nations E. Cannan (Edn) Random House Inc. 1937 Bk. II. Marshall, Alfred; Principles of Economics (8th Edn.) Macmillan and Co. 1930.

[5]Smith, Adam op. cit. pp. 265 - 266.

[6]Marshall op. cit. pp. 178 & 180 also p. 216

[7]See e.g. Zymelman M.; "Labour, Education and Development" in Don Adams', Education in National Development (1971) pp. 98. - 117.

[8]Schultz in Hanson and Brembeck op. cit. p. 133.

[9]See e.g. Myint H.; "Education and Economic Development" SES Vol. 14 No. 1, 1965 pp. 8 - 17.

[10]Harbison and Meyers op. cit. pp. 6 - 9.

[11]Blaug, Mark; Education and the Employment Problem in Developing Countries (ILO, Geneva 1974) p. 18.

[12]Harbison and Meyers op. cit. p. 9.

[13]Ibid. pp. 31 - 51.

[14]Vaizey, John; "The Role of Education in Economic Development" in Parnes, Herbert S. op. cit. pp. 39 - 47.

[15]Harbison and Meyers op. cit. p. 9.

[16]Citing a study by Psacharopoulos, Blaug points out that primary education generally yielded higher returns, in eighteen countries studied, than secondary education; while the latter yielded higher returns (in five of the countries studied) over university education. Blaug 1974: 18.

[17]Vaizey in Parnes op. cit. p. 40.

[18]Zymelman in Adams (1971) op. cit. pp. 100 - 101.

[19]Ibid. p. 110.

[20]Kuznets, Simon op. cit. Chap. 3.

[21]Lewis, W. Arthur; "Industrialization in the British West Indies" Cited in New World Special Issue, Girvan and Jeffreson (Eds.) 1972, p. 143.

[22]Bhagwati J.; The Economics of Underdeveloped Countries McGraw Hill 1971 p. 124.

[23]See e.g. Curle op. cit. p. 127.

[24]Lewis, W. Arthur; "Is Economic Growth Desirable" in Novack and Lekachman op. cit. pp. 10 - 23.

[25]Staley op. cit. p. 25.

[26]Harbison and Meyers op. cit. Chap. 9.

[27]Parnes op. cit. p. 73.

[28]The difficulties involved in the exercise is a question of unpredictability. Even though the school system seems the most likely mechanism, there is no certainty that the requirements will be met. For example, most potential university graduates of ten or more years hence may only now be in secondary schools; and children who are now in primary schools may not emerge as secondary school leavers for another twelve years. For those who will go on to university, it will take another three or four years to graduation. Therefore at least fifteen years will be involved before they become fully qualified. See e.g. Harbison and Meyers p. 189 ff.

[29]Tinbergen, Jan; The Global Demand for Education in Underdeveloped Countries; OECD Conference in Economic Growth and Investment in Education (1961) p. 5.

[30]Parnes op. cit. p. 76.

[31]See argument on this point in Harbison and Meyers op. cit. p. 196.

[32]Staley op. cit. p. 20.

[33]Ibid pp. 52 - 53.

[34]Elvin, Lionel; "The Structure of Education in a Developing Country" in Parnes op. cit. pp. 171 - 180.

[35]Ibid. 174.

[36]See: Willman B.; Educational Reform and the World of Work, "Economic Change, Educational Needs, and Secondary School Reform in Sweden" Western European Education Vol. IX, No. 2, Summer, 1977.

[37]See e.g. Rubenstein D. and B. Simon; The Evolution of the Comprehensive School (Routledge and Kegan Paul 1969); Kazamias A.M. and Byron Massialas; Tradition and Change in Education: A Comparative Study (Prentice Hall 1965) p. 53.

[38]Elvin in Parnes op. cit. p. 178.

[39]Poignant, Raymond; "Establishing Educational Targets in France" in Parnes op. cit. pp. 205 - 221.

[40]Breuse, Edourd; "Experiment in Continuing Teacher Training" in New Patterns of Teacher Education and Tasks OECD/Paris 1974 pp. 9 - 10.

[41]ILO, Vocational Training and Management Development (1962), Cited by Venkata Rao; in Education and Training for Industrial Development in India p. 54.

[42]Seers, Dudley; "A Step towards A Political Economy of Development" SES Vol. 18, No. 3, Sept. 1969 pp. 218 - 253.

[43]Adams and Bjork op. cit. p. 16.

[44]See e.g. Moehlman, Arthur; Comparative Education Systems; Center for Applied Research in Education (New York 1969) p. 12.

[45]See: Bassett G.W.; Innovation in Primary Education (Wiley Interscience 1970); Bennis et. al. op. cit.; CERI/OECD, Paris 1973 Vols. I - IV; Netzer, Lanore A. et. al. Education, Administration and Change (Harper and Rowe, New York 1970)

[46]CERI/OECD, Paris 1973 Vol. I, p. 35.

[47]Netzer et. al. op. cit. pp 12 - 15.

[48]Ibid. p. 137.

[49]Bassett G.E. op. cit. p. 7.

[50]Ibid.

[51]CERI/OECD, Paris, 1973 Introduction

[52]See e.g. Carnoy, Martin and Henry M. Levin; The Limits of Educational Reform (David McKay Co. Inc. New York 1976).

[53]Levin, Henry M.; "Educational Reform: Its Meaning"; in Carnoy and Levin op. cit. pp. 23 - 51.

[54]Ibid. p. 26

[55]Levin Henry M.; "A Taxonomy of Educational Reforms for Changes in the Nature of Work"; in Carnoy and Levin op. cit. pp. 83 - 114.

[56]Ibid. p. 84

[57]Ibid. pp 88 - 91

[58]Ibid. p. 107.

PART III: EDUCATION AND DEVELOPMENT IN JAMAICA

Chapter Four: The Setting For Change and Development; Education Before the '60's, And The Plans For Educational Change.

[1]For development in these areas, see e.g. Girvan, Norman and Owen Jeffreson; "Corporate vs. Caribbean Integration" in Readings in the Political Economy of the Caribbean; New World, Special Issue (1972) Norman Girvan and Owen Jeffreson (eds.) pp. 87 - 98. For Education Boards, see The Education Thrust of the '70's p. 15. This Document will be referred to as the "Education Thrust", subsequently.

[2]Hall, Douglas; Free Jamaica, 1838 - 1865: An Economic History (Yale Univ. Press 1955). The production of sugar was carried out mainly with slave labour. The practice began with the Spaniards who imported Africans to replace the aborigine Arawak Indians, nearly all of whom had died out before the British took possession of the island. According to M.G. Smith (1965)by about 1775, half a million Africans were brought to Jamaica for plantation work. The mortality was high, but in 1820, there were approximately 340,000 slaves, 35,000 Europeans and about the same number of 'free coloureds' and 'freed slaves' in the island.* (Cf, society subsequently.)

[3]Beckford, George; "Plantation Society: Towards a General Theory of Caribbean Society" in Figueroa, P.M.E. and Ganga Persaud (eds.) Sociology of Education: A Caribbean Reader (1976) pp. 30 - 46.

[4]See e.g. Curtin, Philip D.; Two Jamaicas: The Role of Ideas in a Tropical Colony 1830 - 1865 (Harvard Univ. Press 1955). Henriques, Fernando; Family and Colour in Jamaica (Sangsters Book Stores 1976). Patterson, Orlando; The Sociology of Slavery (Maggibon and Kee 1965). Smith, M.G.; The Plural Society in the British West Indies (Univ. of California Press 1965). Also, Stone, Carl; Stratification and Political Change in Trinidad and Jamaica (Sage Publications, 1972).

[5]Henriques, Fernando; op. cit. p. 53.

[6]Smith, M.G.; op. cit. p. 80.

[7]Ibid. p. 163.

[8]Ibid. p. 165.

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*Comparable figures appear in Patterson (1965); Parry and Sherlock (1960) and Kuper (1976).

[9]Lewis, Gordon K.; The Growth of the Modern West Indies (Maggibon and Kee 1968) pp. 38 - 40.

[10]See e.g. Clarke, Colin; Kingston Jamaica: Urban Development and Social Change 1692 - 1962 (Univ. of California Press 1975) pp. 119 - 124.

[11]Miller, Errol; "Education and Society in Jamaica" in Figueroa and Persaud op. cit. pp. 47 - 66.

[12]Lewis, Gordon K.; op. cit. pp. 38 - 39.

[13]Gordon, Shirley; (1963) op. cit. p. 2.

[14]Ibid. p. 81.

[15]Ibid. p. 44.

[16]The following are the more important Commissions which investigated the early education system: The Commission of the Reverend John Sterling (1835), The Commission Reporting on the Condition of the Juvenile Population (1879), The Lumb Commission (1898), the Moyne Commission (1938 - 1940). The last was not directly concerned with education, but the operation of school systems was part of its investigations, See e.g. Gordon, Shirley; Reports and Repercussions in West Indian Education (Ginn and Co. 1968).

[17]Ibid. p. 60.

[18]Ibid. p. 65.

[19]Vernon, P.E.; "Selection for Secondary Education in Jamaica", Report to the Minister of Education 1961, p. 8.

[20]Gordon, Shirley; (1963) op. cit. p. 224. See also, Farrell, Joseph P., "Education and Pluralism in Selected Caribbean Territories", Comparative Education Review, Vol. XI, June 1967 pp. 160 - 181.

[21]Cited by Ouida Wright in "The Development of Education in Jamaica" M.A. Thesis, McGill University, (1956). p. 26.

[22]Gordon, Shirley (1963) op. cit. p. 108.

[23]Miller, Errol; in "Education and Society in Jamaica", cited in Figueroa and Persaud op. cit. p. 61.

[24]Gordon, Shirley (1963) op. cit. p. 241. The Cambridge School Examinations were introduced in 1882, and by 1891, pupils began sitting the London Examinations.

[25]Figueroa, John; Society Schools & Progress in the West Indies (1971) p. 103.

[26]Gordon, Shirley (1968) op. cit. p. 31. Some endowed schools were no more than primary schools, with enrolments anywhere from 8 to 30 pupils; e.g. the Drax endowment started a school on one of the estates with only 8 pupils. It was later reorganised, however, and became the Jamaica College - i.e. a high school in suburban Kingston.

[27]Ibid. pp. 92 - 96.

[28]Ibid. p. 33 and passim.

[29]A National Plan for Jamaica 1957 - 1967 p. 38.

[30]Miller Errol in Figueroa & Persaud op. cit. p. 64.

[31]Clarke, Colin; op. cit. p. 83.

[32]The Five-Year Independence Plan (1963 - 1968) p. 57.

[33]The New Deal p. 12.

[34]Ibid. p. 66.

Chapter Five: Educational Changes In Jamaica, 1960 - 1975

[1]See e.g. The Five-Year Independence Plan, pp. 14 - 23.

[2]The Education Thrust p. 13.

[3]Ibid. p. 2 passim.

[4]The New Deal pp. 7 - 8.

[5]The Education Thrust pp. 6 - 7.

[6]Ministry of Education: Annual Report 1975/76 p. 57.

[7]Budget Debate: 2nd May, 1973; Address by The Prime Minister.

[8]New Deal, p. 55.

[9]Ibid. p. 56.

[10]The Education Thrust p. 15.

[11]Sixth Commonwealth Education Conference, June 1974; Kingston, Jamaica W.I.

[12]See e.g. Figueroa, John; op. cit. pp. 106 - 108.

[13]New Deal pp. 44 - 45.

[14]Ministry of Education, Jamaica: Annual Report 1975/76 p. 24; The Economic and Social Survey, Jamaica 1975, p. 230.

[15]Ministry of Education: Annual Report, 1975/76, p. 26.

[16]See e.g. Facts on Jamaica: Education, pp. 12 - 14 ff.

[17]Cited in "The Five Year Education Plan (Draft Two)" p. 30. This is a new document which contains proposals for further educatinal changes between 1978 and 1983.

[18]New Deal, p. 40.

[19]The Economic and Social Survey 1975, p. 235.

[20]Gordon, Shirley (1968) op. cit. p. 121.

[21]The Five Year Education Plan, p. 60.

[22]Ministry of Education: Annual Report 1975/76, pp. 33 - 34.

[23]See e.g. Figueroa, John op. cit. pp. 62 - 65.

[24]The Five Year Education Plan, p. 60.

[25]In 1965 for example, 26,179 pupils sought entry to secondary schools via the common entrance examinations. 5,600 were accepted, and about the same number went on to junior secondary schools. This left about 14,000 who could not be placed in a secondary school that year.

[26]The Five Year Education Plan, p. 78.

[27]Ibid.

[28]As a result of the examinations in that year, 997 students were awarded places in high schools; 265 went to technical schools and 189 to comprehensive schools. See Economic and Social Survey, 1975 p. 242.

[29]The New Deal p. 15.

[30]The Economic Survey, 1972 p. 174.

[31]Ministry Paper No. 63, 1973.

[32]Ibid.

[33]Ministry of Education: Annual Report 1975/76, pp. 19 - 20.

[34]Ibid. pp. 128 - 131.

[35]Ministry of Education: Annual Report 1975/76, pp. 128 - 131.

[36]That is between 1962 - 1972.

[37]Figueroa, John; op. cit. p. 35.

[38]The New Deal, p. 32.

[39]The Education Thrust, pp. 25 - 35 ff.

Chapter Six: Assessment and Conclusions

[1]The New Deal, p. 6.

[2]The Education Thrust, p. 1.

[3]Lewis, W. Arthur (1961) op, cit. p. 121.

[4]Lyons, Raymond; (Ed.) Problems and Strategies of Educational Planning (Paris/Unesco 1965) p. 98.

[5]Adams and Bjork op. cit. p. 148.

[6]The Five-Year Independence Plan, p. 159 ff.

[7]The New Deal, p. 63.

[8]Jeffreson, Owen; The Post-War Economic Development of Jamaica (ISER, 1972).

[9]Cumper, Gloria; Survey of Social Legislation in Jamaica (ISER, 1972).

[10]The New Deal, p. 57.

[11]See e.g. Staley op. cit. p. 66; Adams and Bjork op. cit. p. 125; also Philip J. Foster; "The Vocational School Fallacy" in Anderson and Bowman; Education and Economic Development (Aldine Publishing Co. Chicago 1965) pp. 142 - 169.

[12]With reference to Ghana, Foster argues, for example, that even where students are educated in agriculture and/or technical subjects, many will gravitate towards alternative employment. p. 149 op. cit.

[13]Evidence from a number of studies show that this is so. For example in Worcester, Massachusetts, it was found that the public cost of vocational schooling (1966) was 2.3 times that

of general schooling although the wages structure was hardly different when the students graduated from school and found employment. In Switzerland on the other hand, full-time vocation courses cost five times as much as training on the job (1963). In Jordan (1968) the cost of producing one graduate in an industrial school was 4.8 times that of producing one graduate in general secondary schools. In Tunisia the ratio was 2:1. These studies are reported in Staley, op. cit. pp. 149 - 151. For Jamaica the available evidence suggests that the cost of technical schooling, as compared with high schools and the few comprehensive schools, is in a ratio of 2 to one.

[14]Foster, Philip J.; in Anderson and Bowman op. cit. p. 161.

An example of what Foster advocates is the "built-in" school in Sweden. Here a factory-school system has been designed to draw on the strengths of both formal schooling and industrial training. Two processes are involved: practical and theoretical instructions. The firms give 34 periods a week of practical instruction and the school 8 hours of theory. The trainees are of course under the supervision of a headmaster for the entire duration of the courses. See Staley op. cit. p. 142; Rao op. cit. p. 60.

[15]The New Deal, p. 5.

[16]The following have been cited in Figueroa and Persaud op. cit. pp. 52 - 56:

1. Miller, E.L.; "A Study of Body Image; Its Relationship to Self Concept, Anxiety and Certain Social and Physical Variables in a Selected Group of Jamaican School Girls, 1967.
2. _____; "A Study of Self Concept and its Relationship to Certain Physical, Social, Cognitive and Adjustment Variables in a Selected Group of Jamaican School Girls, 1969.
3. Dabek, Shirley; "Secondary School and Social Class in Jamaica" 1971.
4. "The Sixth Form Survey 1971", U.W.I. Department of Education.

[17]The Five Year Education Plan, p. 32.

[18]See e.g. 1. References in Figueroa and Persaud, pp. 52 - 55.
2. Kuper, Adam; op. cit. pp. 71 - 75.

[19]Kuper, Adam p. 74.

[20]Figueroa and Persaud op. cit. pp. 51 - 61.

[21]The Education Thrust, p. 13.

[22]Adams and Bjork op. Cit. p. 150.

[23]Parnes, Herbert S.; op. cit. pp. 74 - 76.

[24]Ibid.

[25]Moreira, Roberto, "Education and Development in Latin America", Social Aspects of Economic Development in Latin America Vol. 1, UNESCO 1963; Lewis, W. Arthur; 1961, op. cit. pp. 113 - 124.

[26]The estimates - primary, secondary, etc. - are those of Roberts' and Abdullah's. There appear to be discrepancies in the figures, however, as the Independence Plan shows that increases in the 5 - 24 age group was 664,000 in 1960; and later in the Roberts and Abdullah's article different figures were quoted for secondary and university enrolments. The estimates might therefore have been based on the number who already had education at the various levels rather than those who were in school at the time.

[27]Lewis, W. Arthur; 1961 op. cit. p. 118.

[28]Ibid.

[29]Ibid. p. 119.

[30]Jeffreson has commented on the difficulty of obtaining accurate employment data, but shows that the educational level required for a high proportion of jobs in the manufacturing sector was above the secondary level. Cf, "Socio-economic foreground", subsequently.

[31]See e.g. Parry, J.H. and P.M. Sherlock (1960) op. cit.; Lewis Gordon K.; op. cit.; Hearne, John; op. cit.

[32]Lewis, Gordon K.; op. cit. pp. 167 - 196.

[33]See e.g. Hearne op. cit. p. 20.

[34]Ibid.

[35]Others - e.g. Gordon Lewis - agree; much of what he terms "the social awakening" was due, as he shows, to the efforts of politicians or to other middle class groups who were strong supporters of the newly found nationalism. Lewis, Gordon K., op. cit. pp. 167 - 196.

[36]Clarke, Colin; op. cit. p. 138.

[37]Ibid. pp. 83 - 86.

[38]Jeffreson, Owen; "Aspects of the Post-War Economic Development of Jamaica" in Girvan and Jeffreson op. cit. pp. 109 - 120.

[39]Economic Survey 1971, p. 130.

[40]Economic Surveys - 1970, and subsequently; see also Kuper, op. cit. pp. 16 - 17.

[41]Jeffreson, Owen; in Girvan and Jeffreson, p. 116.

[42]Ibid., p. 110.

[43]Ibid., p. 116 and passim.

[44]Ibid., p. 112.

[45]Nettleford, Rex; "Social Responsibilities of the Business Enterprise" Management, Sept. 1977, pp. 22 - 30.

[46]Jeffreson, Owen; in Girvan and Jeffreson, pp. 114 - 115 and passim.

[47]For example, in 1943 Kingston and its suburbs contained 18% of the island's population, but by 1973 this rose to 30.1%. The growth rate of Kingston was recorded at 3% per annum in the decade 1960 - 1970. while May Pen and Montego Bay (respectively) grew at 6% per annum over the decade. In the same period Spanish Town had an all time high of 11% growth rate. By comparison, the island's overall rate of natural population increase was 1.4% over the decade; while all the rural parishes grew at less than 1% annually. Thus nearly all the growth in urban population was attributed to internal migration. See e.g. Francis, O.C.; The people of Modern Jamaica; Dept. of Statistics, Kingston 1963, pp. 2 - 18; also, the Economic Surveys: 1970, p. 48; 1972, pp. 26 - 27, for statistics on migration to North America.

[48]In commenting on these factors, Colin Clarke notes that the migration problem has always been related to the pattern of land ownership in Jamaica, as well as to population distribution and growth. Up to 1960 for instance, 45% of the island - the lands that is - was controlled by about 900 individual proprietors and/or companies. Furthermore hoarding of land and land shortage - the one ensuring the other - have always existed side by side since emancipation. As a result few small farmers were able to purchase or rent sufficient

acreage on which to support themselves and their dependents without some additional wage employment. This is therefore one of the reasons for migration to the areas of opportunity where chances of, at least, intermittent but fairly highly paid work are good. In like manner the movement to overseas for many persons, is no less based on reasonable economic assessment of the possibilities.

With regard to the 'stigma' attached to agricultural pursuits, the values and aspirations of school leavers and also the encouragement from parents are often cited as stimuli which leads to the rejection of agriculture in favour of 'white-collar' jobs of urban or industrial origin. This appears to be true to an extent because research data show that there is an impressive preference for urban-type occupations among the rural folk, together with an underlying desire to escape from the peasant environment; Smith, M.G. 1965:196 - 220. However the concrete social processes (as Clarke shows) seem to explain the phenomena rather better as recent studies - e.g. Kuper's support Clarke's. See: Colin Clarke 1975:77 - 78; Kuper 1976:15 - 20.

[49]Clarke, Colin, p. 79.

[50]See e.g. Jeffreson, Owen; in Girvan and Jeffreson, pp. 114 - 115.

[51]Tidrick, Gene; "Some Aspects of Jamaican Emigration to the United Kingdom 1953 - 1962", SES Vol. 15, No. 1, 1966 pp. 22 - 39.

[52]According to the Bank of Jamaica estimates remittances from Jamaicans abroad 1972, totalled J$40.0 million.

[53]Economic Surveys 1971, p. 11; 1972, pp. 24 - 25.

[54]Buffenmeyer J.R.; "Emigration of High-level Manpower and National Development: A case study of Jamaica", cited in Kuper op. cit. p. 14.

[55]Economic and Social Survey 1975, pp. 252 - 253.

[56]The fact is that Jamaica is now passing through a serious economic recession; but the migration to the cities has not ceased. It was largely fed by the development of new industries but resulted in the creation serious urban problems such as high crime rates, and the concentration of unemployment. At the same time continued migration has not relieved the economic and social problems of the rural areas. Furthermore, migration abroad which was once a safety valve has now been reduced. There could be some hidden virtue in this as there will be less of a drain on the island's skilled people, but even so a growing proportion of the highly skilled have already left. Thus the island is not

only faced with the problem of replacing the skills lost; but that of increasing unemployment.

[57]See e.g. Meier and Baldwin op, cit. p. 23.

[58]Lewis W. Arthur in Novack and Lekachman, pp. 13 - 22.

[59]Hanson and Brembeck op. cit. p. 502.

[60]Manley, Michael; op. cit. p. 142.

[61]Huq, Muhammad S. (1975) op. cit. p. 177.

[62]ILO (International Labour Office) "Human Resources for industrial Development: Aspects of Policy Planning; cited by Staley p. 130.

[63]See e.g. Manley, Douglas R.; "Mental Ability in Jamaica" SES Vol. 12, No. 1 1963, pp. 51 - 77.

[64]See e.g. Stalev 1971, p. 138 ff.

[65]Cf. note 48 above; see also Figueroa and Persaud op. cit. p. 62.

[66]Economic Survey 1972 pp. 143 - 148; also Economic and Social Survey 1975 p. 253.

[67]Adams and Bjork op. cit. pp. 148 - 158; Parnes, Herbert S., op. cit. pp. 80 - 84.

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Abbreviations: ISER = Institute of Social and Economic Research, University of the West Indies.

SES = Social and Economic Studies: a publication of the University of the West Indies.

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