

THE MIGRATION OF HIGH LEVEL PERSONNEL FROM GUYANA: TOWARD AN ALTERNATIVE ANALYSIS

by

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ABSTRACT

The principal thrust of this study is to provide an alternative analysis of the process of brain-drain in the Third World countries, and especially Guyana. The analysis offered in this study differs from the orthodox conceptualisation of the brain-drain phenomenon as a mechanism for reducing inter-country wage differentials of professionals. The considerations that have prompted the brain-drain from the Third World countries have been placed in their dialectical historical framework. Hence, we have pointed out that the dynamics of the brain-drain can be traced to the natural tendency of the capitalist system to "socialise and internationalise" its principal means of production, namely labour. Thus the brain-drain phenomenon is an inevitable consequence of the global integration of educational systems due to colonialism. In order to eliminate it, what is needed is the transformation of the educational structure of the Third World countries. Suggestions for such a transformation are offered in this study.

1. INTRODUCTION

The available data on the magnitude of emigration of high-level personnel from Guyana reveal that they constitute about twenty-five per cent of permanent emigrants of about five thousand per annum. The category designated as high-level personnel comprises professional, technical, administrative and managerial personnel. This level of brain-drain is rather alarming, although casually discussed in most official circles.¹ The eminent shortage in high-level manpower that this might create is minimised by the recruitment of foreign personnel in the short-run, and in areas like education and nursing, by the rapid expansion of locally trained alternatives.

The constraints to the socialist development strategy of the country by the brain-drain phenomenon are manifold. First, the migrants are embodied with "human capital" that is intrinsically Guyanese and thus is best suited for the production organisation of the country. The cultural component of the human capital embodied in the migrants is an element acquired by a long period of gradual assimilation and contact with the Guyanese system. Imported substitutes, in the form of personnel recruitment from abroad, are not adequately embodied with this element of culture in order to perform at the same level of efficiency. In the purely economic sphere, the loss of the migrants to the economy is the loss of production, due to their absence. Within the framework of the technical production function, human capital is conceived as a special type of factor input. Extensive loss could thus drastically slow growth.

Finally, the migrants are embodied with human capital investment. In most cases, the level of investment has been attained by foregoing alternative

TABLE 1

EMIGRATION AND IMMIGRATION BY OCCUPATIONAL CLASSES

	Emigrants			Immigrants	
	1968*	1969	1970	1969	1970
Professional and Technical	116	546	333	392	304
Administrative and Clerical	116	647	509	289	271
All other Classes	227	754	745	277	263
Outside the Labour Force	687	2,825	2,638	1,167	1,132
Not Stated	22	—	—	8	1
Total	1,168	4,772	4,225	2,133	1,971

* Refers to the August-December period only (W. L. David, 1970).

Source : Ministry of Economic Development of Guyana: Annual Statistical Abstract, p. 171.

TABLE 2

OUTPUT OF GRADUATES OF THE UNIVERSITY OF GUYANA

	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Degree Courses	31	35	74	63	91	75	107	137
Certificate and Diploma	—	14	39	33	69	104	101	194
Total Graduates	31	49	113	96	160	179	208	331

Source : Ministry of Economic Development of Guyana: Annual Statistical Abstract, pp. 117-119.

country. Based on the data for 1969 and 1970, if we make the most optimistic assumption that all new graduates from the University of Guyana do not migrate in their first year, then a rough estimate of the net outflow of high-level personnel for 1969 and 1970 are 399 and 171 respectively. This implies that for the two years, approximately twenty-five per cent of the annual total outflow of high-level personnel from Guyana are not replaced.³

Thus, Wilfred David (1970, p. 9) notes in connection with Guyana's brain-drain that "no matter how ingenious we may be in trying to devise an indigenous and appropriate technology, and we are far from achieving this, an average emigration of twenty per cent of high-level skills among permanent emigrants would undoubtedly forestall such moves. If we follow the usual path of industrialisation by capital intensive techniques, we will be short of strategic manpower." In addition, the extensive loss could drastically slow growth. In terms of arguments put forward by Scott (1970, p. 280), "both to reach the production possibility frontier and to advance it require sophisticated trained personnel."

2.2. Orthodox Analysis of Causes of "Brain-Drain"

Orthodox discussion of the brain-drain phenomenon is developed within the framework of "push and pull" effects. Thus, as it is argued, on the one

projects and consumption. In effect, the migration of high-level personnel should be viewed as the export of "matured" capital accumulated over the years by the migrant, at considerable cost to the country, but with a relatively little return.² Thus, according to Berry and Soligo (1969, p. 279), "loss occurs in all cases except where the migrants have relatively high propensity to hold wealth, but leave a large part of the capital behind . . . or where their wealth holding propensity does not differ from the remaining population." Consequently, the export of "brains," in the form of migration of high-level personnel, may be seen to constitute an uncompensated capital flow, or gift, from the country of origin to the country of destination.

It is upon this background that the brain-drain phenomenon in Guyana should receive a high priority. However, conventional analysis of the issue has been rather apologetic, concentrating on such concepts as the "push and pull" effects, with rather little concrete suggestions for the elimination of the problem. And, as characteristic of orthodox analysis, the brain-drain phenomenon has been overshadowed by the Harrod-Domar "capital shortage" debate, as the principal constraint for development and transformation.

In this study, we propose a much radical approach to the brain-drain debate. This will be arrived at by analysing orthodox approaches to the brain-drain phenomenon in section two. An alternative analysis of the dynamics of brain-drain in the Third World countries is developed within the Marxian framework in section 3. We conclude by suggesting some solutions to the problem.

2. ORTHODOX APPROACH TO THE "BRAIN-DRAIN" PHENOMENON

We begin this section by providing a brief discussion on the magnitude of brain-drain in Guyana. The orthodox analysis of the causes of brain-drain, with special reference to Guyana, and relevant solutions offered in the literature are subsequently discussed and evaluated.

2.1. The Magnitude of "Brain-Drain" in Guyana

Data on emigrants, and especially of high-level personnel, are woefully inadequate. The available data, and the most recent information, are for the last quarter of 1968 and on an annual basis for 1969 and 1970. These are presented in Table 1. The data are categorised under five broad classes. The classes we designate as high-level personnel are the professional, technical, administrative and clerical. The category of professional and technical includes doctors, lawyers, engineers, etc., while the administrative and clerical class includes bank managers, office clerks, sales managers, and generally personnel in the supervisory grades.

Compared to the annual output of graduates from the country's main producer of high-level personnel, the University of Guyana (Table 2), and the inflow of high-level personnel (Table 1), the Guyanese brain-drain phenomenon reveals a tendency towards an acute shortage of high-level manpower in the

recent developments in the medical field." Thus, the different and more stimulating intellectual climate abroad causes doctors to migrate.

Secondly, and embracing all other "pull effects" is the differential income factor between the developing and developed countries. In a study of causes of emigration as regards nurses, it was felt that the primary factor is the low wage rates. Nurses in Guyana cannot resist the temptation of a better standard of living and life style assured by a salary of U.S.\$500 to U.S.\$600 per month as compared to domestic salary of little over G\$100 per month. Similarly, Iris Sukdeo (1976, p. 62) notes that "teacher migrants are cognisant of the availability of more opportunities, higher incomes, recreational, educational and other social facilities and securities" in the host countries. In general, the high cost of living in Guyana coupled with the low wages, as opposed to the relatively affluent situation in the industrial countries, reinforces the migratory tendency.

Finally, it might be added that another element, although relatively minor, in the "pull effect" is that the industrialised countries encourage the inflow of highly trained manpower by the structure of their immigration laws. In relation to other categories of workers, permanent visas could be easily obtained by high level personnel like engineers and medical doctors.

2.3. Orthodox Solutions to the "Brain-Drain" Phenomenon

The best way to reduce the flow of brain-drain has usually been identified as an improvement in the monetary rewards and working conditions of the high-level personnel. This is based on the uncompromising views, such as those of Baldwin (1970, p. 370) that "professional men the world over have much the same requirements for job satisfaction and, unless the traditional cultures and pay scales of many brain-losing countries (developed and less developed alike) can adapt to these requirements, then . . . high-level manpower with get-up-and-go will get up and go." Hence, most national and international reports on brain-drain echo such sentiments (Colombo Plan, 1972, p. 4; Sri Lanka Government, 1974, pp. 36-49). Thus, for Guyana, Wilfred David (1970, p. 38) suggests, in recognition of the need for sacrifice at a certain stage of a country's development, that "every possible effort should be made to improve the remuneration of such manpower so as to reflect the order of the nation's needs and priorities."

Other recommendations as relate to improvements in the income of the high-level manpower revolve around such concessions as free housing, tax exemptions, etc. In the case of Guyana, qualified Guyanese residents abroad are employed on contracts that permit them to be treated as foreigners. In addition, Wilfred David (1970, p. 41) suggests "another means of attracting qualified Guyanese abroad is to create centres of excellence. These basic research centres need not wait the logical educational and technological development of the country."

The problem with such recommendations is that the changes in reward and working conditions necessary in order to make much impact on the current level of Guyanese brain-drain are likely to be substantial. Moreover, it is difficult

hand, there may be certain conditions existent in the migrants' country which provide the catalyst for migration. On the other hand, there is a "pull" toward countries where career prospects are much brighter in both intellectual and economic terms.

With reference to the push effect, brain-drain in Guyana could be perceived as a safety valve, alleviating social, political and economic stress in the country. Emigration of Guyanese of Indian origin might be prompted by feelings of fear, insecurity, and frustration as a consequence of uncertainties in the political and economic future of the country. In particular, Clive Thomas (1977, p. 15) notes that "given the racial composition and ideology of the People's National Congress, Burnham no doubt saw in Caribbean integration, and **eventual immigration**, the long-term solution to the minority racial position of the P.N.C. in Guyana" (emphasis mine).

In addition, as Wilfred David (1970, p. 13) notes "generally, there seems to be a lack of appreciation of the value of highly trained human resources" in Guyana. This is manifested in the first place by the absence of an adequate manpower planning and mobilisation policy. Thus, in certain cases, young graduates or professionals returning home usually "cannot find jobs suitable to their qualifications" and are "usually subjected to an inordinate amount of red tape, bureaucracy and 'pushing around'" (Wilfred David, 1970, p. 15). The lack of adequate manpower planning and mobilisation is also manifested, in certain cases, by "the undesirable situation where a man holds several positions while there may be others qualified to fill one or more of the said positions but not allowed to do so" (Wilfred David, 1970, p. 13). Both racial factors and political patronage affect the mobilisation system (Green, 1974, p. 198). The existence of such a state of affairs does not only result in unnecessary friction but is negative for morale, efficiency, for commitment, as well as for the socialist transformation strategy of the country as a whole.

As regards the "pull effect," the level of Guyana's economic development, and recent performance, vis-a-vis those of the major industrial countries such as Canada, U.S.A. and Britain are the main determinants of emigration. Firstly, the emigration of high-level personnel, especially those of the research cadre, could be ascribed to the fact that in Guyana, there is a general lack of professional leadership, adequate research equipment and facilities, and the "scientific stimulus owing to the general neglect of scientific activities and low social prestige" (Wilfred David, 1970, p. 7). On the other hand, in industrial countries like the U.S.A. and Canada, research and development absorb considerable number of engineering and scientific personnel. Adequate private and government stimulus are also available.

Thus, in Guyana, migrating medical doctors complain of the general lack of necessary supporting staff and adequate scope for research. "A doctor finds himself in the rut as there is not even a medical professional body through which local doctors can be kept abreast with development in medicine, through which local doctors can share ideas, and for which they can prepare papers in their respective fields" (Wilfred David, 1970, p. 23). In addition, library facilities are inadequate and doctors "have to spend large sums to procure publications on

to withhold an improvement in the rewards of high-level personnel from other groups of workers such as sugar and rice workers, who can plausibly claim comparability with them but whose skill and occupation structure are "regionalised" or 'localised' so that they cannot find comparable work in the industrial countries. Thus, attempts to implement such a scheme would not only prove difficult for the government budgeting system, but it would also have a drastic effect on internal income distribution.

A scheme that has attracted a great deal of recent publicity in the orthodox literature is the suggested income tax on "drained" manpower from less developed countries (Bhagwati and Dellalfar, 1973, pp. 94-101). This scheme intended to reduce the "pull effects" of migration is also intended to raise compensatory revenue from the affected countries. The tax, which could be progressive or proportional, would be collected from the immigrants by the tax authority of the host country over a limited period and eventually handed over under United Nations auspices to the government of the country of origin.⁴

Indeed, in principle, given a sufficiently high tax rate, both brain-drain and revenue could presumably be reduced to zero. However, on admittedly preliminary calculations (Psacharopoulos, 1975; De Voretz and Maki, 1975), elasticities of response seem to be such that tax rates would have to be punitively high to have more than a marginal effect on the number of migrants. In addition, one has to confront the formidable political, legal and administrative problems raised by the scheme (Partington, 1975; Oldham and Pomp, 1975). Finally, one of the basic limitations of such a scheme is that it does not consider the importance of the "push effects" in the migration process.

3. AN ALTERNATIVE ANALYSIS OF THE "BRAIN-DRAIN" PHENOMENON

In this section, we shall provide an alternative analysis of the brain-drain phenomenon. To put our analysis in its correct perspective, we provide, as a prelude, a brief critique of the orthodox analysis of brain-drain. Our analysis of the brain-drain phenomenon is developed within the framework of Marxian dialectics.

3.1. Critique of Orthodox Analysis of "Brain-Drain"

Orthodox analysis of the brain-drain phenomenon is inadequate, for it sees international migration of labour as a means of reducing inter-country wage differentials in "some occupations" (Stolper and Samuelson, 1950). It is, thus, based on the uncompromising view that "professional men the world over have much the same requirements for job satisfaction" (Baldwin, 1970, p. 370). It is thus supportive of the creation of "classes." This is not surprising, for orthodox analysts view the acquisitiveness and rationality inherent in capitalism as operating solely in terms of individual free exchange. Moreover, the theories tend to lend themselves most easily to apologetics. Thus, Scott (1970, p. 275) notes that compensation to migration comes by way of transfer of scientific discovery and knowledge back to the home country, through cash remittance and through what he terms the "gratification of the overseas success of children."

More specifically, orthodox analysis of the brain-drain phenomenon is inadequate because they derive from assumptions which are ahistoric and thus lack specific social content. More generally, orthodox theory of the brain-drain is certainly of little use in explaining the dynamics of Third World migration. This is because of its failure to recognise that the brain-drain phenomenon falls within the historical tendency of capitalism to progressively socialise and internationalise its production process, and along with it, the exploitation of labour power. While orthodox theorising on the brain-drain has become more preoccupied with computing admittedly inadequate "monetary" loss due to emigration, it has emerged with very little concrete suggestions to solve the problem.

The dialectical historical perspective to be employed in the rest of this study has the property of helping us to comprehend, theoretically, the actual process of Third World (and Guyanese) emigration. The framework is intrinsically Marxian, which logically introduces social relations, or change them, in the sequence in which they actually developed historically. In this way, we shall realise that the reversal of the brain-drain trend would require a conscious domestic effort at transformation by placing emphasis on "man" as the principal instrument of transformation.

3.2. The Historical Dialectics of the "Brain-Drain" Phenomenon

One of the principal limitations of the orthodox analysis of the brain-drain phenomenon in the Third World is failure to relate it to the process of imperialism. The role of imperialism in the brain-drain phenomenon can be traced to the general Marxian analysis of the geographical expansion of capitalism into an international system. Of more direct theoretical interest is Marx's recognition that colonialism can directly reduce the domestic reserve army of employed through emigration (Marx, *Capital I*, p. 452). Much of our analysis is concentrated on the manifestation of this phenomenon in the peripheral capitalist countries created by colonialism.

The colonial economy utilised only a tiny proportion of the resources in the Third World. Only in exceptional enclaves, in the case of Guyana the bauxite belt and the coastal plain suitable for sugar, was anything like full exploitation of land and mineral resources attained. In no case were the inhabitants permitted to achieve anything like full development of their own resources. The form of indigenous participation in Guyana, for example, was through the supply of labour power as workers or peasants (Beckford, 1975, pp. 80-89). The skilled, educated, highly productive labour force, which is the single most important factor in economic development, was neither sought nor attained. Colonial educational policy was aimed at the limited few at the periphery in propagation of the "class" structure of the capitalist system. The educational system was in essence a system of social stratification rather than primarily a universalistic training system. Its functioning was such as to give advantage to those of elite class background (Carnoy, 1972). The "privileged" professional was subsequently integrated into the global capitalism "class" system and usually was accorded the same rights and respect as their counterpart in the centre.

Their numbers were however limited because the contradictions of the capitalist system at the centre progressively led to migration of "professionals" from the centre to the periphery.

The model which has been followed by most Third World countries after political independence, has been that of integration, in a subordinate role, in the international capitalist economy. In the case of the professionals, this integration has been extremely tight. Thus, in Guyana, for example, professionals have foreign and/or internationally recognised qualification, obtained either abroad or at home. Even when the stage of using foreign qualification in one's own training institution has been passed as in the case of Guyana (since the socialist transformation began) localisation of qualifications has not meant indigenisation. Thus, most Third World professions, encouraged by the transnational professional and educational establishment, take care to ensure that their qualifications are still internationally recognised. This international negotiability of qualifications is at the root of brain-drain, yet it is the one thing which none of the orthodox "solutions" has dared to tackle.

Thus, on the advent of the inevitable capitalist crisis at the periphery, due in part to the fact that the economic contradictions of capitalism reappear in both the centre and the peripheral countries (Karl Marx, *Manifesto*, pp. 67-75), the dynamics of the brain-drain is set in motion. This is, in part, a mechanism for reducing the domestic reserve army of unemployed (or underemployed) and, in part to the fact that the economic contradictions of capitalism reappear in gratification. As noted by Sweezy (1971, p. 66) there is nothing mysterious about the decline in the effective demand in the post-independent peripheral countries constituting the so-called Third World. It is "the inevitable consequence of the global structure of the capitalist system." Similarly, the brain-drain phenomenon is an inevitable consequence of the global integration of the educational systems due to colonialism.

4. TOWARDS A RADICAL SOLUTION

It is obvious from the above analysis that the tight integration of Third World professionals into the international qualification network has grave implications of their internal effectiveness, as well as reinforcing the brain-drain. The dysfunctionality of the transnationally defined professional is easiest to detect, and most widely documented, in the case of the medical profession where foreign trained personnel are not usually adequately equipped to handle cases related to parasitic diseases which are prevalent in the Third World countries. Similarly, in the transition to socialism, as in Guyana, management personnel trained in capitalist company laws are of limited relevance. Thus, in general, most professionals in the Third World countries become dysfunctional as soon as attempts are made to shift to an economic system much relevant to the local economy. In order to eliminate this dysfunctionality and the consequent brain-drain we suggest a system of education based on "collective self-reliance" with emphasis on the "man" as the principal instrument of transformation.

4.1. The Strategy of "Collective Self-Reliance"

The strategy of "collective self-reliance" is currently being canvassed as an alternative to existing strategies of dependent or associated development and represents one positive attempt to eliminate the brain-drain, as well as the dysfunctional nature of the educational system.⁵ Oteizo and Sercovic (1976, p. 4) have usefully summarised collective self-reliance as involving "(i) the severance of existing links of dependency operated through the 'international system' by the dominant countries; (ii) a full mobilisation of domestic capabilities and resources; (iii) the strengthening of links—collaboration with other under-developed countries; (iv) and the reorientation of development efforts in order to meet the basic social needs of the peoples involved." In Guyana, such programme, theoretically recognised, might be regarded as a **necessary** but not **sufficient** condition for a transition to socialism. The sufficient condition lies in the development strategy that places emphasis on "man" as the principal instrument of transformation.

Nevertheless, the transformation of the economy and income distribution involved in the strategy of collective self-reliance should have a clear impact on the pattern of development. Industrialisation strategies would be based, no longer, on the exact reproduction for a narrow high-income market of the transnational brands of consumer goods, but on the production of the basic needs of the people. This would mean a change in the context in which production-based professionals would work and necessarily in the way in which their jobs would have to be defined and in their self-image. The Chinese "barefoot" physician is one such concept of new professional that emerges from such a programme.

The collective self-reliance strategy would also have implications for professional training and qualification, with the emphasis shifting from producing "a professional" (to international capitalist specification) towards the acquisition of task-specific knowledge. The totality of such knowledge would not necessarily be of a "lower" standard than the internationally-defined syllabuses of existing professional training institutions. It would certainly be different and it would change constantly as the structure of the economy changes, but its possessors would certainly not be regarded as "professionals" by their international counterparts and potential international employers and thus, incidentally, brain-drain would cease to be a problem.⁶

4.2. Emphasis on Man as the Principal Instrument of Transformation

The sufficient condition for a truly socialist transformation is the need, at the early stage of the transition, for a development strategy with emphasis on human beings or men. Such a strategy is illustrated by the Chinese paradigm. John Gurley (1971, p. 3) has summed up the Chinese strategy by noting that "Maoists believe that, while a principal aim of nations should be to raise the level of material welfare of the population, this should be done only within the context of the development of human beings and of encouraging them to realise fully their manifold creative powers."

The development strategy with emphasis on human beings would have four basic goals: class struggle, selflessness, active participation and non-specialisation. It is within class struggle that progress is made and new forms of association emerge (Marx, Critique, p. 21). Without class struggle there would be no change. The need for change argues for the elimination of selfishness. If a person is selfish, he will resist criticism and suggestions and he is likely to become bureaucratic and elitist. He would work harder for narrow and selfish goals than he would for group, community, or national goals. Thus, there is need to "de-emphasise material incentives, for they are the many manifestations of a selfish bourgeois society" (Gurley, 1971, p. 6). To gain knowledge people must be encouraged to mobilise themselves and to take conscious action to elevate and liberate themselves. Outside this framework of active participation, an individual stands little chance of self-enhancement; inside the framework, an individual is involved in a dynamic process of becoming "truly free," in a sense of being truly aware of the world around him and an active decision-making in that world. Such active participation can best be promoted by breaking down specialisation, by dismantling bureaucracies, and by undermining the other centralising and divisive tendencies that give rise to experts, technicians, authorities and bureaucrats remote from or manipulating "the masses." This range of goals, amounting in effect to the severance of traditional links with international capitalist educational systems, would, in effect, make personnel from the Third World countries and their qualifications less negotiable internationally. It would also make them content with their domestic environment.

In order to attain these goals, there would be the need for a redefinition of job content along the lines of the strategy of "collective self-reliance." In addition, the associated changes in training would need careful study. In general, however, they would have institutional implications. Among other things, new centres of training would need to be developed. In the area of health, for example, the much lower level of resources available in Guyana (and other Third World countries), as well as the difference in the nature of the country's health problems, argues for the use of a larger scale of medical auxiliaries or "barefoot physicians," much cheaper to train and to pay than existing medical doctors.⁷ This strategy does not mean that all studies outside the country should be ruled out, but education outside the country should be a study for the acquisition of skills and ideas not available at home (and which cannot be set up without a high capital cost) and not for the acquisition of the status of international mobile profession. Finally, it could best be obtained in a country at either the same development stage or with the same ideological Principle.

5. CONCLUSION

The alternative analysis of the process of brain-drain in the Third World countries, and especially Guyana, offered in this study is rather radical. It is radical, in that it differs from the orthodox conceptualisation of the brain-drain phenomenon as a mechanism for reducing inter-country wage differentials of professionals. The considerations that have prompted the brain-drain from the Third World countries have been placed in their dialectical historical framework. Hence, we have pointed out that the dynamics of the brain-drain can be traced

to the natural tendency of the capitalist system to "socialise and internationalise" its principal means of production, namely labour. Thus, the brain-drain phenomenon is an inevitable consequence of the global integration of educational systems due to colonialism.

To minimise or eliminate it, such orthodox solutions as the improvement of monetary reward and conditions of service to the professionals, and the "brain-drain tax" have been shown to be ineffective. What is needed is the transformation of the educational structure of Guyana (and other Third World countries) consistent with the strategy of "collective self-reliance" with emphasis on human beings as the instrument of development. In effect, we suggest the complete severance of existing links of educational dependency with the international capitalist system.

Our concern has been less with the feasibility of the strategies but with their logical implications — in particular, their implications for the high-level personnel. Indeed, the fact that they imply a drastic transformation of the occupational and professional structure could be said to contribute an important potential obstacle to their implementation. Members of the professions and occupational classes can hardly be expected to welcome a redefinition of roles. In any case, if there is hope for a true transformation of Guyana, the brain-drain has to be eliminated, although this would require some drastic and comprehensive policies.

FOOTNOTES

1. This is indicated in part by the absolute lack of policy related to the "brain-drain" and in part by the absence of adequate data on the magnitude. We shall discuss this issue in section two below.
2. Girling (1974, p. 92) estimated that the brain-drain in Jamaica for 1967-68 amounted to about J\$9 million loss to the country. This calculation admittedly underestimates the real magnitude of the loss since non-pecuniary costs were not considered, and it pertains only to "capital costs."
3. While naive projections in this area are misleading, casual empiricism and discussion with personnel at the tax office (where tax exits are procured) suggest that the magnitude of the brain-drain is on an upward trend, especially since 1974. Some data are available but for "confidential reasons," they were not allowed to be used for analysis and publication.
4. In effect, the "brain-drain tax" is intended as a compensation to the losing country.
5. This is similar to the "basic-needs" strategy spearheaded by Alister McIntyre (former Secretary-General of the Caribbean Community) in the call for a New International Economic Order (N.I.E.O.).
6. The strategy of "collective self-reliance" therefore attempts to eliminate the "push effect" of brain-drain. While it does not wholly eliminate the "pull effect" it minimises its effect by eliminating the international negotiability of local professionals and by making the domestic economy relatively more attractive than it is now.
7. Note my suggestions in Sackey (1976) in which I recommend a reorganisation of the health system in order to get more patient participation in the medical care process. This would help both in reducing costs and alleviating the shortage of personnel.

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