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HIGHER EDUCATION AND EMPLOYMENT IN KENYA:
A LIBERAL INTERPRETATION OF THE LITERATURE

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ABSTRACT

This paper is an attempt to synthesize and interpret the literature on higher education and employment of the highly-trained in Kenya. The paper begins by examining four trends which characterise the labour market for university graduates in the 1980's. These trends are the,

- 1) Low employment generation in the private sector and the subsequent pressure on the government to provide jobs;
- 2) Increasing competition among graduates for desirable employment;
- 3) Occurrence of education or credential inflation, particularly at the entry-level; and,
- 4) Limited, but one-way, public to private sector movement of skilled persons.

The relationship of these trends has a number of parallels with the classic inflationary spiral. The demand for education places an unending pressure on the government to expand the educational system, which in turn results in subsequent pressure to expand employment opportunities, which reinforces the demand for education (by assuring that relatively high-paying jobs are available). The government cannot maintain the increasing commitment of resources necessary to continue to expand the educational system and employ its graduates.

The paper concludes with an examination of some selected policy options. The pervasive theme and intent of these strategies is to reduce the role the government plays in the subsidizing of higher levels of education and the provision of employment for the highly-trained. Changes must also occur on the individual level. Greater responsibility must be shifted to the consumer of education to be informed of available training alternatives, to assume a greater proportion of the costs of that education, to be aware of employment prospects and realities, and to be prepared to accept the outcomes, whatever they may be.

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HIGHER EDUCATION AND EMPLOYMENT IN KENYA:
A LIBERAL INTERPRETATION OF THE LITERATURE [1]

Whether the ambitious programme of development expenditure . . . can be achieved depends critically on the availability of trained and experienced manpower . . . In many developing countries otherwise sound plans have foundered because of a shortage of skilled manpower and a failure to take the vigorous steps necessary to alleviate the shortage. More labour of all kinds is normally needed as development proceeds but as an economy becomes more complex the need for high- and middle-level manpower expands at a disproportionate rate.

Republic of Kenya Development Plan 1966-1970 (1966, p. 44)

The tenor of the 1960's in sub-Saharan Africa was expectant, positive, even ebullient. Freed from the restraining class of colonialism it was now the task of Western capital, "armed and arrayed with academic theories of modernization and human capital", to usher these African nations into the industrial-technological age (Kinyanjui, 1980, p. 7). Education was to occupy a key role in this transformation. The university, at the apex of the educational system, was charged with the provision of highly-trained manpower.

By the mid-1970's sub-Saharan Africa had experienced a severe economic downturn and continued political instability that forced theorists and practitioners to question the validity of the work of Lerner, Rostow, and Shils and others who had guided thinking in the 50's and 60's. Concurrently, literature began to emerge suggesting that "education, as generally practiced, tends to hinder rather than promote development" (Court and Ghai, 1974, p. 4). Critiques of African higher education posed that high-level manpower was being produced without "an understanding of the society from which they themselves have come" (Wandira, 1977, p. 18); that the educational system converts this trained manpower "into subcultures with their own social and political values . . . that lessen identification with other groups in society" (McKown, 1975, p. 223); and, that the preparation provided by higher education is exceedingly academic, abstract, and ephemeral.

ral. Evidence of educated underemployment and unemployment further reinforced the questions regarding the linkages between the labour market and the educational system.

This paper, in an attempt to synthesize and interpret the literature and describe the current situation, briefly examines the political and economic characteristics of the 1960's and 1970's that influenced the employment experience of highly-trained manpower. This serves as background to five trends that describe the relationship of higher education and employment in the 1980's. Although the trends are interrelated and hardly exhaustive, they seek to illustrate the untenable combination of rapidly-increasing demand for education, high employment expectations among the educated, a limited job market, and a tendency for the government to accept the responsibility for employment of graduates. These factors have linked together creating an upward spiral, reminiscent of an inflationary economy, that are consuming an ever-increasing amount of government resources. Conscious intervention is necessary to change this situation. The paper concludes with an examination of options available to policy-makers faced with this problem. The examination will focus on one particular country, Kenya, which is not atypical of the sub-Saharan experience.

POLITICAL AND ECONOMIC TRENDS INFLUENCING THE EMPLOYMENT EXPERIENCE
OF UNIVERSITY GRADUATES IN THE POST-INDEPENDENCE KENYAN ECONOMY

The commitment of Kenya to education as a catalyst for development has been reflected by the expansion of the educational system since independence. This dramatic increase in the supply of highly-trained manpower has, more than any other single feature, influenced the experience of graduates in the labour market. By 1972, nearly 27 percent of the current government expenditure was for education. Between 1961 and 1975 government-aided secondary school enrolment rose from 18,400 to 106,300. In the same period

TABLE I. MACRO-LEVEL TRENDS IN POST-INDEPENDENCE EDUCATION IN KENYA

Year	Characteristics	Effects
1960's	<ul style="list-style-type: none"> *Indigenization of civil service begun *Expansion of the educational system (Gachathi Report, 1976) *Educational system still closely resembles that of Britain 	<ul style="list-style-type: none"> *High proportion of employment in the civil service (Rastad, 1972) *Little competition for available positions in job market *'Metropolitan' focus dominates academic preparation *Formation of educated elite who occupy a privileged position in Kenyan society economically, politically, and socially; come disproportionately from backgrounds of socio-economic advantage (Goldthorpe, 1965; Van den Berghe, 1968; Olson, 1972)
1970's	<ul style="list-style-type: none"> *Indigenization of civil service nearly complete (Bigsten and Collier, 1980; Development Plan 1984-1988, 1983) *Economic development is characterized by limited growth of an industrial base; employment opportunities in the formal sector available in the urban centers (Kinyanjui, 1974) *World-wide economy falters except for oil-exporting nations beginning 1973 *Demand for formal education is tremendous and fuels continued expansion of the educational system *Continued large number of students abroad (Republic of Kenya, 1983; King, 1985) *Some modification of education attempted, e.g., rural polytechnics *Reward system reinforces movement from teaching to other public sector employment and from all public sector to private sector employment 	<ul style="list-style-type: none"> *Graduates that once would have been taken by Kenyanization depend increasingly upon creation of new employment *Pressure on government to continue to expand public sector *Most employment available in services sector not in industrial sector *More graduates seeking work *Evidence of oversupply of graduates in many fields (Kinyanjui, 1972; Weekly Review, 1985; Narman, et. al., 1985) *Education 'inflation' is underway in entry-level slots; more training needed to qualify for openings; upper echelons are less affected (Sabot, 1982) *Demand remains for formal education despite alternatives (Narman, et. al., 1985) *Economic rationale for growth of educational system shifts to political rationale (Court, 1975) *Because of limited spaces at secondary and post-secondary level, meritocracy assumes a greater political importance and is rigorously preserved and promoted (Prewitt, 1974)

Harambee school enrolment increased from 3,700 to 111,100 (Gachathi, 1976). Similar growth occurred in higher education. In 1961, the total output of locally-trained Kenyan university graduates in East Africa was 99. By 1984, the University of Nairobi alone recognized 2,747 graduates. In addition, the Development Plan 1984-1988 (Republic of Kenya, 1983) indicates that 9,000 Kenyan students were studying abroad in 1983. Education has undeniably been the premier commitment of post-independence Kenya.

In more recent years, much of the impetus behind this spectacular growth is the seemingly insatiable demand for education originating at the level of the individual Kenyan. There is "a desperate desire for university studies and other post-secondary education," observed Narman, et al. (1985, p. 33). It is the avenue for access to the money economy. It was a precondition for employment in the independent Kenya of the 70's and has become a critical component of household survival.

This is best evidenced in Martin's study (1982) of a Maragoli village in Western Kenya. It begins with the growth of the role of cash income. Martin notes that "soap, processed foods, cigarettes and 'western' clothes, though luxuries in the 1920's, have [become] essentials for all households, including the poorest . . . in Kenya there is no longer an alternative to education if employment is to be gained, and in Maragoli households are almost totally dependent on wage labour for their survival" (pp. 143-4). Education has become far more than a luxury item. It is an allocation of current funds in an effort to secure future income from those whose education has been supported. Given this scenario, the intensity of the demand for education in Kenya is hardly surprising.

In addition, the potential returns for additional education further reinforce the demand for all levels of learning. The average salary level for those classified as professionals in 1978 was nearly ten times the mean

wage of the unskilled worker in the modern sector (Waruhiu, 1980). Rate of return literature variously estimates private rates of return for university graduates to be 27.4 percent (Thias and Carnoy, 1969), 31 percent (Fields, 1980), 14.3 percent (Bigsten, 1984) [2]. The educated are rewarded more than all but the most successful entrepreneurs.

Hence, what began as a national effort to develop the educational infrastructure in order to provide basic education and to train middle and high-level manpower in sufficient numbers to accommodate the needs of modernization in the 1960's, became established as the mechanism by which Kenyans gained access to the formal wage sector of the economy. As a result, demand for education was exceedingly strong cutting across ethnic, regional, and socio-economic lines.

Obviously, this demand for education did not diminish as the manpower needs of the 1960's were satisfied. As a result the 1970's saw this economic rationale for continued expansion of the educational system increasingly become a political rationale, albeit unspoken. Court (1975) best encapsulated the situation the Government found itself in:

Expansion is accommodated because the alternative of reducing demand by altering the reward structure is politically unacceptable. To curtail expansion without altering the reward structure would be to admit . . . that those deprived of any chance of education by such a decision would at the same time be deprived of any chance of qualifying for the higher rewards and privileges available in the society. (p. 27)

The heightened expectations of a populace that has devoted scarce personal resources to educate themselves and their children is a potent force, particularly in the numbers the expanded educational system has involved. In summary, the legacy of educational policy of the 60's and 70's can be captured in two factors -- 1) the tremendous, unabated expansion of the educational system at all levels, and, 2) the willingness of the government to acknowledge and respond to the demand for education even after the

greatest needs have been filled. These hold great significance for the features that characterise the 1980's. These features are detailed in terms of the following five trends.

FIVE TRENDS

1. The Pressure to Generate Employment

There has been tremendous pressure on the Kenyan government to expand employment in general and for secondary and post-secondary graduates in particular. This pressure is primarily due to two factors. First, the employment generation by the private sector has not been sufficient to absorb the graduates of the educational system. This has partially been due to the nature of industrial development in Kenya and the kinds of skills the manufacturing sector has required of its employees. Second, the expectations of a public experiencing increasing access to education have not stopped with the provision of that education. It is also expected that employment will be available. Just as this pressure politicised the expansion of the educational system, it has exerted similar pressure with regard to employment generation.

Until recent years, the inability of the private sector to employ sufficient numbers of university graduates created few difficulties. The early graduates, Clignet and Foster's (1966) "fortunate few", experienced little competition for available positions. The vacuum created initially by the move toward indigenisation of the civil service and later as the trend incorporated the private sector, generated an artificially high, one-time surge in demand for university graduates. Even with Kenyanization of the private sector, the predominant employer of university graduates has been the public sector. This is a trend that has continued since first noted by Rasted (1972), in his study of the employment of the 1956-67 Kenyan graduates of the University of East Africa. This is reported in Table II.

Similarly, in his study of secondary school leavers between 1965-8, Kinyanjui (1974) found that of those employed three years after graduation, 70 percent were in the public sector.

The anticipated industrialisation with its demand for high-level manpower did not materialize. Instead, two things occurred that are indeed characteristic of more dependent economies. One, as outlined by Bennell (1981) in his study of the employment and utilisation of engineers in Kenya, demand for the highly technical skills possessed by university

TABLE II. EMPLOYMENT DISTRIBUTION OF KENYAN GRADUATES OF THE UNIVERSITY OF EAST AFRICA, 1956-67, AS OF 1969 (Rastad, 1972, p. 331)

	Government Excluding Teaching	Secondary and University Teaching	Private Sector
Agriculture	85%	11%	4%
Arts	59	28	13
Commerce	75	8	17
Education	40	53	7
Engineering	49	5	46
Law	79	10	10
Medicine	100	--	--
Science	54	30	16
Veterinary Science	71	29	--

graduates is very limited. Kenyan industry is typified by a dependence upon imported technology and a lack of local research and development. Preferred are personnel possessing operative skills, who can be responsible for the production lines supported by a handful of maintenance mechanics or technicians. The skilled labor is principally supervisory, not technical [3].

The second phenomenon, is what Irizarry (1980) calls the 'premature' concentration of employment in the services sector, which accounts for 60 percent of non-agricultural employment in developing nations. He cites the case of Mexico, which in the period from 1930-70, created only 33 percent

of all new jobs in the manufacturing and crafts sector while the services sector generated 50 percent. A similar trend is in evidence over the 1964-1982 period in Kenya as indicated in Table III. In that period, 68 percent of the new non-agricultural employment was generated in the services sector (agricultural wage employment in that period actually declined). This indicates the lack of the development of a local industrial base capable of generating the expected growth of demand for middle and high-level manpower, and the reliance on the public sector for employment creation.

TABLE III. SERVICES/NON-SERVICES EMPLOYMENT GROWTH, 1964-1982

Year	Employment in Services	Proportion of Total	Employment in Non-Services*	Proportion of Total
1964	187,600	55%	154,600	45%
1970	241,700	57%	178,900	43%
1976	359,900	59%	252,400	41%
1982	494,700	62%	300,200	38%

*EXCLUDES Wage Employment in Agriculture
(Developed from Vandemortele, 1984)

Combine the nature of industrial development in Kenya and its inability to generate sufficient employment demand with the expectation that suitable employment opportunities be available for the educated; the result is significant political pressure upon the government to ensure the availability of employment for graduates. This expectation of suitable employment for those with education begins in the family. This is captured by Paterson (1980), who observes,

nowadays finding or creating work is quite a difficult process and one that can be long and complex. Education is seen as the beginning of this process. From providing land, the father's responsibility to his children has been shifted to that of providing education. Rather than land, the son's major productive resource is now seen to be his labor which can be enhanced and made marketable by education. (p.10)

Moreover, Martin (1982) found that as much as 80 percent of household income is allocated toward education and that an essential 30-50 percent of wage earners income is returned to the family. Work must follow educa-

tion. In addition, graduates have had to wage an uphill battle against immensely unfavourable odds in Kenya's meritocratic educational system in order to succeed. Because of this struggle and the devotion of scarce resources to their education, both graduates, their families, and all with hopes of reaping the rewards of education develop expectations with regard to the occupation of graduates (Foster, 1968; Mazrui, 1978). The frustration that could potentially coalesce this group as a destabilizing force allied against those in power is a potent pressure upon the government. This pressure becomes one more force pushing for the expansion of government employment.

Growth of Public Sector Employment

The growth of public sector employment in the 1970-79 period may be indicative of the government's response. In that decade, the public sector expanded 71.6 percent compared to a 37.9 percent increase in private sector employment (Republic of Kenya, 1978; Republic of Kenya, 1979). This same period has been characterized by a lack of growth in the government's contribution to total output (AID, 1982) [4]. This serves to underscore the political nature of public sector employment expansion.

Even when considering only high-level manpower, the domination of the government in the employment market is significant. This is evident in Table IV. The prospects for a significant change in this trend are slight given President Moi's pledge to provide employment for all University graduates [5].

Bennell's study (1981) of the relationship between education and employment in the engineering labor market of Kenya provided a comprehensive analysis of the experience of University graduates in one field. Among Bennell's findings was that approximately 28 percent of the 1600 Kenyans

TABLE IV. GOVERNMENT DOMINATION OF EMPLOYMENT MARKET FOR HIGH-LEVEL MANPOWER, 1982

	PRIVATE SECTOR		PUBLIC SECTOR	
	Citizens	Non-Citizens	Citizens	Non-Citizens
Directors, Managers, and Professionals	4,758	3,121	10,886	710
Executives and Technicians	23,934	2,165	42,423	450
Teachers with University Degrees	1,109	958	8,384	1,094
TOTAL	29,801	6,244	61,693	2,254
Proportion of total	30%	6%	62%	2%
Proportion of total excluding Executives and Technicians	32%		68%	

Republic of Kenya. Employment and Earnings in the Modern Sector 1982. Nairobi: Central Bureau of Statistics. (Unpublished)

who had undertaken foreign-training in engineering were employed as engineers in Kenya in 1980. The data on employment of engineers trained at the University of Nairobi is detailed in Table V. Overall, in excess of 60 percent of the total number of graduates were employed within the public sector with approximately 35 percent of the total employed within the private sector (trans-national firms, consultancies, and other private sector firms). This is a figure that is not out of line with economy-wide patterns as detailed in the earlier discussion of the macro-level trends. Furthermore, an average of 70-80 percent of all on-going projects undertaken by engineering consultancies in 1979-80 were for public-sector clients. The low level of private sector demand for the skills offered by engineers, Bennell attributes to the "predominance of import-substituting industries which have relied on the direct importation of foreign technology which generally requires only a relatively small cadre of engineering manpower to maintain (1981, p. 11).

TABLE V. SUMMARY OF THE FINDINGS OF BENNELL'S (1981) TRACER STUDY OF UNIVERSITY OF NAIROBI-TRAINED ENGINEERS

	Central Govt.	Para- statals	Consul- tancies	Teachers/ Students	Trans-Nat/ Private	Migrated
CIVIL	46.2%	15.6%	26.7%	2.8%	5.3%	3.5%
ELECTRICAL	15.6	48.2	5.5	5.5	20.5	4.6
MECHANICAL	25.8	19.6	2.2	6.6	44.1	1.5
TOTAL	31.8	25.2	13.3	4.7	21.6	3.0

Information from other African nations would tend to support the figure calculated for the government employment of high-level manpower in Kenya. In Sanyal's Zambian and Sudanese studies (Psacaropolous and Sanyal, 1981), sixty-three percent of the employed graduates in Zambia had jobs in the public sector and eighty-four percent of the employed graduates in the Sudan had jobs in the public sector.

In sum, the government, given the expanded educational opportunity and the growing pool of high-level manpower, is under considerable pressure to create employment. As evidenced, this pressure has not been alleviated by extensive employment creation by the non-services or the private sectors. This suggests that the growing domination of the public sector in the employment market has a definite political dimension, particularly given the simultaneous lack of public sector productivity.

2. Increasing Competition for Desirable Employment

Given the dramatic increase in the supply of graduates and the limited increase in demand for graduates, competition for the desirable employment opportunities has become intense. Concurrently, there is growing evidence of unemployment and underemployment problems.

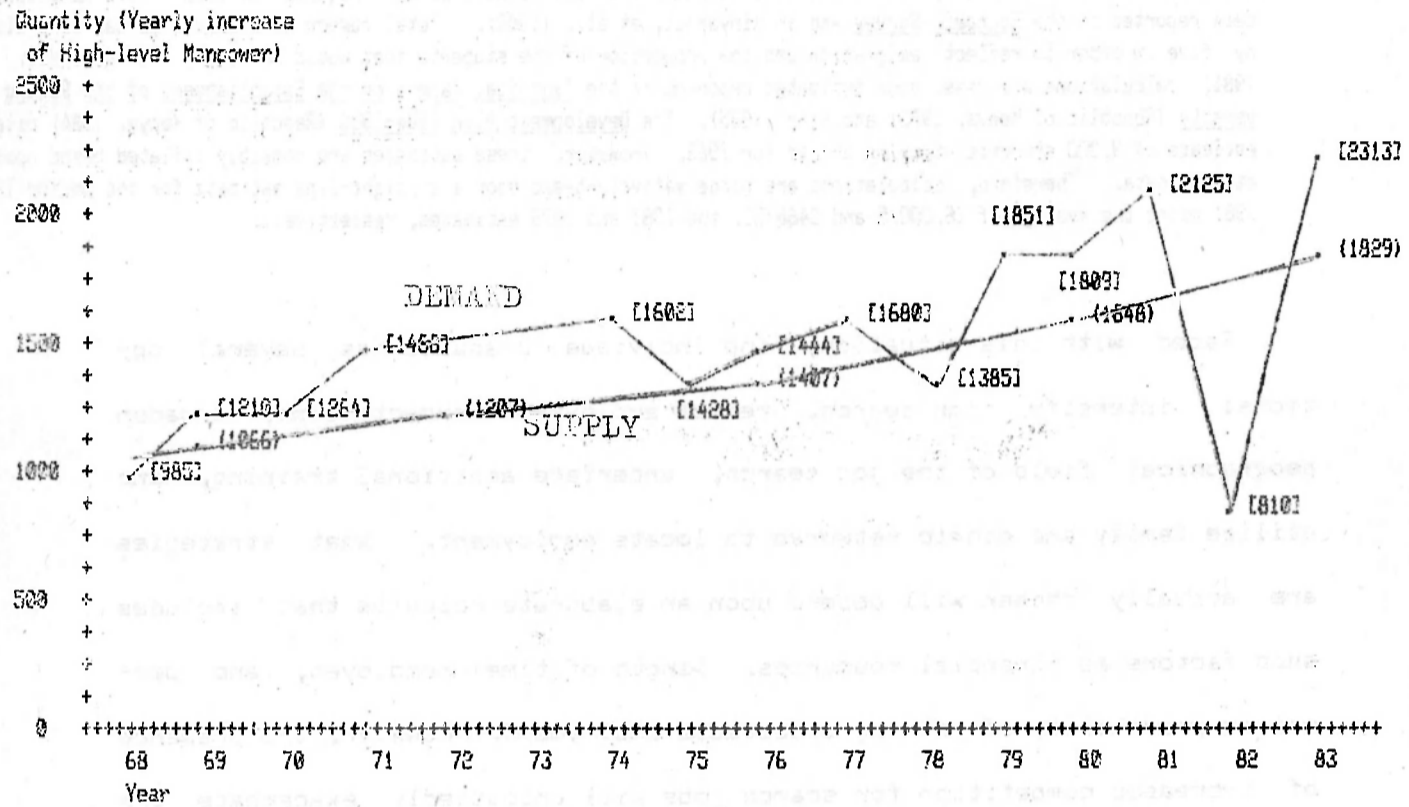
Kinyanjui (1974) first highlighted the growing problem of unemployment among Kenyan secondary school leavers of 1968. Reporting the results of a

study that involved the tracing of 3,179 Form IV Leavers for the years 1965-1968, Kinyanjui noted that one year after leaving school, the number of unemployed had risen from one percent for the 1965-67 cohorts to 14.8 percent for the 1968 cohort. In their study of 1,642 Form IV Leavers one year after taking the KCE, Narman, et al. (1985), found even more dramatic evidence. Only six percent of the sample were working, while 43 percent were looking for work. Maliyamkono, et al., (1982) surveyed 551 Kenyans who had undertaken long-term training, generally a University degree. Only 44 percent of this group felt certain that they would have been employed if they had chosen not to pursue post-secondary training.

The evidence of a similar trend among University graduates is not so clearly documented. Kaplan, et al., (1976) characterises the situation. They observed that the quantitative expansion of education in Kenya, has resulted in more and more individuals graduating from this system and in the heightening of competition for relatively fewer jobs. Many such graduates were overqualified for the positions sought, and frequently the qualifications they offered had no direct bearing on the job. (p. 148)

In a recent speech, Mr. Simeon Nyache, the Kenyan Chief Secretary, acknowledged that the problem of unemployment in Kenya was becoming more acute each year. Kenya produces about 400,000 school-leavers annually while managing to provide formal sector employment for about 50,000, or fifteen percent of the total (Weekly Review, 1985). Rough figures illustrate a similar, although less dramatic story for University graduates. This is represented in Figure 1. These figures support the growing body of anecdotal data about the increasing difficulty of getting an acceptable job [6]. Competition has become more intense, with the prospects for improvement becoming more remote with each year that carries over a surplus of graduates who are unable to locate acceptable employment. Each year the government commitment to ensure employment for University graduates will become increasingly difficult to honor.

FIGURE I. APPROXIMATE ANNUAL INCREASE IN DEMAND AND SUPPLY FOR UNIVERSITY-TRAINED PERSONNEL 1968 - 1983



Year	DEMAND FOR UNIVERSITY-TRAINED PERSONNEL			SUPPLY OF UNIVERSITY-TRAINED PERSONNEL		
	Increase in High-level Manpower	Retirement	TOTAL	Locally-Trained Graduates	Overseas Graduates	TOTAL
1968	326	140	+1266	309	901	+1210
1971				556	912	+1468
1972	1012	195	+1207			
1976	1139	268	+1407	946	498	+1444
1980	1282	366	+1648	1044	765	+1809
1983	1401	428	+1829	1463	850	+2313

Calculations:

Growth in Demand for University-Trained Personnel

Increase in High-Level Manpower: Figures for high-level Manpower (i.e., those classified as Professionals, Top-level Administrators and Salaried Directors, and Executives and Middle-level Managers) were taken for the years 1968 and 1983 from *Employment and Earnings in the Modern Sector* (Republic of Kenya, 1969; Republic of Kenya, unpublished). Based upon these figures, which seemed consistent with the statistics from adjacent years, increases were calculated at the necessary rate of three percent annually.

Retirement: Rates were approximated based upon age distribution of the population and participation rates in the work force in order to reflect the relative dominance of younger cohorts (International Labour Office, 1971).

Growth in Supply for University-Trained Personnel

Locally-Trained Graduates: For the years 1968-1973, the number of Kenyans attending undergraduate University courses in Tanzania, Uganda, and Kenya, minus those enrolled in education courses, were divided by four (to consider attrition, emigration, etc.). For the years 1974-1983, the estimates are calculated on the basis of 90 percent of the graduating class from the University of Nairobi. The 90 percent figure is based on enrolments reported in the *Economic Survey - 1974*, Republic of Kenya, 1974) (Figures taken from the *Economic Survey* and the *University of Nairobi Annual Report, 1982*.)

Overseas Graduates: Undoubtedly, the most questionable of the four calculations. Figures for 1968 - 1976 were based on data reported in the Economic Survey and in Kinyanjui, et al., (1980). Total number of students abroad were divided by five in order to reflect emigration and the proportion of the students that would be likely to graduate. For 1981, calculations are based upon estimates reported in the Technical Papers on the Establishment of the Second University (Republic of Kenya, 1983) and King (1985). The Development Plan 1984-1988 (Republic of Kenya, 1984) cites an estimate of 9,000 students studying abroad for 1983. However, these estimates are possibly inflated based upon the earlier data. Therefore, calculations are conservatively-based upon a straight-line estimate for the period 1976 - 1981 using the average of [6,000/5 and 2488/5], the 1981 and 1976 estimates, respectively.

Faced with this situation, the individual graduate has several options: intensify job search, reduce employment expectations, broaden geographical field of the job search, undertake additional training, and utilize family and ethnic networks to locate employment. What strategies are actually chosen will depend upon an elaborate calculus that includes such factors as financial resources, length of time unemployed, and perceived probability of gaining acceptable employment. However, the presence of increased competition for scarce jobs will undoubtedly exacerbate the differences between graduates from advantaged and less advantaged socio-economic backgrounds.

Graduates from advantaged backgrounds have the resources to provide the necessary support to extend the job search process, to continue schooling, or to finance emigration to countries with greater opportunity. But, perhaps most significantly, socio-economically privileged graduates are more likely to have families with contacts best able to provide the graduate with access to high-level employment. Paterson (1980) found that one of the "most crucial aspects in the actual search for a job is the size and quality of one's social network and how well one is able to utilize those social linkages" (p.13). Furthermore, Prewitt (1974) observes that although university graduates have access to top management and political positions, there are more candidates than openings. As a result, "non-merit considerations are invoked to select the fortunate few into the more desirable positions" (p. 213). As the competition stiffens, the quality network and

the non-merit considerations has to operate to the advantage of those graduates with socio-economically privileged backgrounds. As Coner (1981) has suggested based on his work on the Creoles of Sierra Leone, the privileged zealously uphold the principle of equality of opportunity while utilizing sponsored recruitment to ensure their perpetuation. Those with non-elite origins are more likely to experience longer initial periods of unemployment or settle for lower level positions in times of job scarcity. This scenario has been roughly represented in Table VI.

TABLE VI. MICRO-LEVEL VIEW FROM THE PERSPECTIVE OF AN INDIVIDUAL DECISION-MAKER IN TIMES OF SCARCE HIGH-LEVEL EMPLOYMENT

AWARENESS-----	EXPECTATION-----	ACTION STRATEGIES-----	OUTCOMES
*Graduate realizes that there is greater competition for employment.	*Longer periods of unemployment with a lower probability of getting a good job. *Effective job search is likely to require more intense allocation of effort.	*If unemployed or underemployed may choose to further skills to enhance employability; return to school. *The longer unemployed the less selective one will be. *One is more likely to use ethnic, personal, or tribal connections to gain employment. *Leaving the country may have a greater and greater expected return.	*UNEQUAL OPPORTUNITY IN TIMES OF LIMITED EMPLOYMENT. A distinct advantage will accrue to graduates from wealthy or privileged families. These families will have the resources to provide the necessary support to extend the job search process, to continue schooling, and to finance emigration. These families will also have the contacts best able to provide the graduate with access to high-level employment.

Despite the expansion of the public sector employment, desirable opportunities have become subject to intense competition due to the dramatic increase in the supply of high-level manpower. As a result, underemployment, undoubtedly, and unemployment, most probably, have begun to reach the highly-trained. This situation has necessitated a new set of responses on the part of the individual decision-maker. Under these conditions, socio-economic differences may play an increasingly discriminatory role in the employment experiences of University graduates.

3. Credential Inflation Occuring, Particularly at the 'Margins'

Integrally tied to the competition for employment is the phenomenon of 'credential inflation'. Not only has the minimum education generally necessary to enter the formal sector been raised, but more and more education is required at each level. Sabot, et. al., (1982) showed that those who entered the work force before 1951 had a mean of 5.9 years of education, compared with 7.1 years for those joining the work force between 1951-1960, 9.0 years for those entering between 1961-1970, and 9.6 for those entering after 1970. This change was exemplified by examining those in clerical and secretarial jobs. While in 1959 43 percent in this category had some secondary education, for the period 1973-8 86 percent had some secondary education. Among this job group, there are a large number of individuals with more than Form IV qualifications that have tended to replace those with Form I-IV education.

Although no studies directly scrutinize this phenomenon as it appears among University graduates in Kenya, intuitively there is considerable support. As Hunter (1963) notes, from a theoretical perspective, in the case of a manpower surplus the skill input improves and formal requirements are upgraded through competitive supply. This occurs, unavoidably, at the entry level. Graduates, faced with a competitive situation, seek more and more educational qualifications in order to distinguish themselves from other graduates seeking employment [7]. Employers have the opportunity to upgrade the skill level of their work force. In effect, the upgrading slowly 'trickles up' within the organization as those from the entry level compete for advancement and replace their less-educated predecessors. While it is undeniable that increasing the educational level of the work force in Kenya has multiple benefits, there is considerable inefficiency in expending scarce national resources to provide university training when lesser levels

are sufficient.

Clark's (1985) study of employees from five companies in Zambia is relevant to the Kenyan situation. The one hundred employees and supervisors interviewed were probed with regard to the nature of the employees' job and the relevance of academic qualifications to the performance of that job. Both supervisors and employees tended to believe that the qualification necessary for the job was lower than that possessed by the present incumbents. This was particularly the case for jobs requiring high technological qualifications which were "actually quite simple jobs of routine plant supervision and control" and did not utilize the qualifications being demanded (p. 18).

Associated with the inefficiencies of credential inflation are high levels of frustration and job dissatisfaction. And yet, given the current scenario of increasing competition for scarce employment opportunities, the inflationary credential spiral will advance even more rapidly.

4. Limited, but One-way Public-to-Private Sector Movement

A fourth trend descriptive of the Kenyan economy and undoubtedly influencing the post-graduate employment experience of University graduates is the pay differentials for middle- and high-level positions in the public and private sectors. Although at Independence there were large pay increases in the public sector in order to draw people from the private sector, by 1966 this differential had begun to diminish. Since then, "The private sector has grown in importance and the power-to-pay of the public sector has decreased" (Bigsten, 1984, p. 18). In 1979, professionals in the private sector earned 22 percent more than their counterparts in the central government and 48 percent more than employees classified as professional working in other parts of the public sector (Waruhiu, 1980). Table

VII. shows this disparity in terms of specific high-level job classifications. These data suggest that parastatals and private sector firms may, overall, pay somewhat comparably. However, of employees earning over KSh 6000 monthly in 1979, nearly 80 percent of them were in the private sector (Republic of Kenya, 1981). As a result, employment mobility has generally involved movement from the central government to parastatals or to the private sector.

TABLE VII. WAGE DIFFERENTIALS FOR SPECIFIC JOB CLASSIFICATIONS FOR THE CENTRAL GOVERNMENT, PARASTATAL, LOCAL GOVERNMENT AND A PROXY FOR PRIVATE SECTOR EMPLOYERS (Information provided by J. Vandemoortele; Central Bureau of Statistics, unpublished data)

1982 Earnings (Central Government Wage = 1)

	Local Govt.	Parastatals	Majority Controlled Firms
Architects, Engineers, and Surveyors	1.49	1.32	1.95
Doctors, Dentists, Vets, and Pharmacists	.63	1.29	2.22
Chemists, Physicists, Biologists, Zoologists, and Agronomists	--	.75	1.62
Statisticians, Mathematicians, Economists	.92	1.20	1.98
Lawyers and Jurists	1.12	1.90	1.54
General Managers and Salaried Directors	.54	1.15	2.06
Qualified Accountants and Auditors	.92	1.20	2.06
TOTAL (all job categories)	1.01	1.46	1.73

This situation is exemplified by Bennell (1981) who found nominal salary levels for engineers to be nearly 60 percent higher in the private sector than in the civil service and 20 percent above that earned in parastatals. As would follow, the migration of engineers is virtually entirely from the public sector to the private sector. Of engineers with more than three years of experience employed by the public sector, 42.6 percent of the civil, 21.1 percent of the electrical, and 30.5 percent of

the mechanical engineers left the public sector for employment in the private sector. These findings suggest that the public sector, especially the central and local governments, serves as a training ground from which the private sector can hire the most effective employees.

One final wrinkle in the mobility picture warrants a comment. Recent graduates, unable to locate acceptable employment, will often take on work with the intention of continuing the search process and leaving as soon as an opportunity presents itself. Teaching, as an unqualified teacher, seems to serve as this option of last resort. From this pool the movement first begins.

In sum, it seems painfully obvious that the scenario of the 1980's features a precariously out-of-balance system. The government has tremendously expanded the educational system which has, in turn, produced greater numbers of highly-trained manpower who emerge with certain career expectations that have little chance of being fulfilled by the private sector. Given the critical role of wage earnings for the average Kenyan household, tremendous political pressure has existed on the government to expand employment. Because of the poor record of private industry in the generation of demand for high-level manpower, however, the rapid expansion of public sector employment has virtually been a political necessity. Bolstered by public sector hiring, the reward structure continues to reinforce the demand for formal education. This all serves to underscore the fifth trend.

5. The Precedence of the 'Informal' Manpower Agenda

The informal manpower agenda emerges from the demands of external assistance agencies, governmental ministries, and politicians. It significantly influences the ultimate shape of the actual manpower policy. As a

result, actual manpower practices tend to be of a quick fix character with a minimal emphasis on adherence to any carefully-crafted long-term plan. It is expedient and politically palatable, but rarely effective. King (1985) notes that the official manpower organs of the state have been used to legitimise "some expansion of higher education or training . . . which has already been decided".

The informal manpower agenda has been preoccupied with the legitimization of educational expansion. So strong is this facet of the informal agenda that concerns voiced long-ago about the mismatch of supply and demand for products of the educational system were essentially disregarded. For example, more than fifteen years ago the Development Plan 1970-1974 (Republic of Kenya, 1969) noted,

Government's policy toward secondary education will therefore place higher priority on improving the quality of education than in rapidly expanding the numbers of young people enrolled. . . . realising that nearly two-thirds of all young people now in secondary schools will have difficulty finding wage employment or opportunities for further education. (p. 125)

Four years later, the message was restated, "Whilst the Government recognizes the right of every child to a basic education, it will adopt measures to ensure that access to the higher and more specialized levels is directly related to the nation's economic needs" (Republic of Kenya, 1973, p. 407). By the 1979-1983 Development Plan (Republic of Kenya, 1979), secondary education was still to be limited to a "modest expansion" (p. 157). It was, however, during this period of restraint that secondary school enrolments increased from 100,000 in 1968 to about 465,000 in 1981. So it seems that rather than trying to coordinate supply with demand, educational levels are set at politically feasible levels accompanied by reform in the educational system intended to provide graduates with vocational skills or a focus suited to employment in the rural, informal sector or preparation for self-employment.

A parallel example of the informal manpower agenda can be drawn from the rapid expansion of university spaces (i.e., growth of the University of Nairobi and Kenyatta University College, opening of Moi University, and the recent sanctioning of the development of private universities). However, as illustrated earlier, these plans to increase the supply are in a context of saturation of the demand for high-level manpower. Paradoxically, as mentioned earlier, the government has already felt it necessary (politically expedient?) to guarantee employment for those graduates other employers have been unable to absorb.

In conclusion, it seems highly unlikely that the current choice of manpower strategy and apparatus will be sufficient to address the volatile combination of burgeoning supply and inadequate demand. There are practical limits to the government's ability to generate and guarantee employment concurrent with the fiscal demands of continued expansion of the educational system. Even if it was affordable, the inefficiencies of over-training and the high-level of frustration that characterise credential inflation are undesirable. Given this situation, what policy options are available that offer some manner of cure?

POLICY OPTIONS

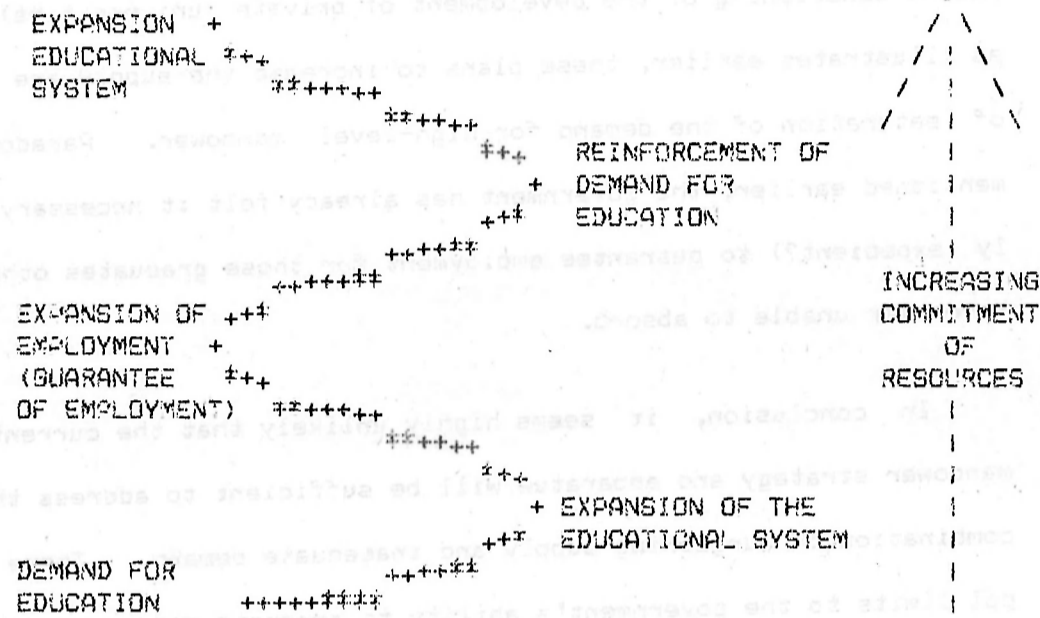
The problem as described in the first section has evolved around the following issues:

- a) the demand for education,
- b) the subsequent pressure to expand the education system,
- c) the subsequent pressure to expand employment opportunities and,
- d) the resulting reinforcement of the demand for education (by assuring that relatively high-paying jobs are available).

In some senses an analogy can be drawn between this situation and the classic inflationary spiral. This relationship is represented in Figure II. The long-term effect is untenable; the government cannot maintain the increasing commitment of resources necessary to continue to expand the educa-

tional system and employ its graduates [8].

FIGURE I. THE 'EDUCATIONARY' SPIRAL.



At some point, the government must intervene and interrupt the spiral (the 'educationary' spiral). Intervention can occur at any of the three levels: reducing the demand for education, slowing the government-funded expansion of University education, or curtailing the artificial creation of employment opportunities for University graduates. Ultimately, this strategy seeks to reduce the involvement of the government in the provision and subsidy of higher levels of education as well as a reduction in the responsibility accepted by the government for graduate employment. It is not intended to imply that human capital may not continue to be a constraint on development in Kenya [9], but to suggest a reexamination of the role of government in the delivery of education and subsequent employment of graduates.

The focus of this section is on the education-related policy options proposed in the literature rather than policies directed toward the creation of increased demand for high-level employment. Carnoy (1977), an

advocate of employment generation, suggests that a basic limitation of the capitalist economic system is that the priority is given to profit rather than employment maximization. In the Kenyan context, however, radical overhaul of the economic system would be neither wise nor realistic. Other less dramatic efforts could potentially improve the employment situation for University graduates, e.g., increased support and subsidy for small business, etc. Apart from employment generation much of the solution must lie within a restructuring of the relationship between the government, education, and employment. The following are some possible policy options that would help to restructure this relationship.

FREE-MARKET POLICY ALTERNATIVES

These alternatives are loosely categorised as 'free-market', which is, admittedly, an exaggeration. They basically advocate eliminating educational subsidies at the higher levels, allowing unemployment to be dictated by market forces, and encouraging downward movement of wages for the highly-trained particularly in areas of excess supply. The intent is to limit the role of the government in the subsidisation of higher education and provision of employment, while allowing market forces maximum opportunity to correct imbalances. It involves treating the student (and his or her family) as a rational and responsible decision-maker, capable of informed decisions and accepting consequences; capable of change in response to altered conditions.

The demand for education has been represented in the literature (Edwards and Todaro, 1974) as a function of a graduate's expected lifetime earnings, educational costs, and opportunity costs. This is shown in Figure III. If one's expected income, given the probability of unemployment, exceeds the costs of education plus the expected lifetime income without that

education, then demand for education will persist. A number of recommendations have been made that are directed at reducing the returns to educational investment (Blaug, 1973; Edwards and Todaro, 1974; Mingat and Psacharopoulos, 1984).

FIGURE III. A PARADIGM FOR UNDERSTANDING EDUCATIONAL DEMAND

$$\sum P_e \hat{I} > C_t + C_o + \sum P_e \hat{I}_a *$$

KEY: P_e - the probability of employment
 \hat{I} = expected lifetime income with additional education
 C_t = tuition costs associated with additional education
 C_o = opportunity costs associated with additional education
 \hat{I}_a = expected lifetime income without additional education

* This equation has focused upon economic motivation and disregarded non-economic motivators, such as, status, desire for self-improvement, etc.

1. Increase Tuition

Certainly the most frequently mentioned option is directly increasing tuition costs in such a way that the beneficiary bears a larger and rising proportion of the actual costs of education as he proceeds through the system (Woodhall, 1981). This would involve a reduction in societal subsidisation of higher levels of education by equating tuition with the actual costs of education. However, if such policies were implemented, appropriate subsidies should be provided for the 'able poor'. This can, for example, be done by introducing a quota-by-income level system which would ensure that capable low-income students would not be prevented access to educational opportunity by financial barriers (Todaro, 1977).

The effect of this policy would be to give students a higher incentive to choose responsibly among alternative educational options. As Burrows (1975) observes, 'relevant' education and training will be demanded "when -

and only when - the incentives system makes it individually profitable for them to do so" (p. 12). Some reduction in enrolments could no doubt be expected, though it is known that aggregate demand is not very sensitive to increases in the cost of education, especially when the private rate of return is already high. On the other hand, an improvement in internal efficiency of the education system could also be expected, e.g., lower drop-out and repetition rates. In terms of external efficiency, increasing costs of higher education would make students pay more attention to labour market signals and make them more 'investors' and less 'consumers' and in general improve the linkage between education and the labour market.

Such a policy would also have a number of other advantages. The first is that the financial constraints imposed by the continued growth of public spending on education would be reduced. At present, little success seems to have been achieved in curbing educational expenses and various decisions (for example, abolishing primary school fees for Standards 5 and 6) have run clearly contrary to this objective (Killick, 1981).

The policy would also respond to the valid criticism that current programmes involving rising subsidies are anti-egalitarian and, in fact, represent a subsidy to the rich by the poor. The impact of the present financing of the educational system on income distribution in Kenya has been well documented (Todaro, 1977; Killick, 1981) and expresses the concern that the present system increases rather than reduces income inequality.

II. Reduce Expected Returns for Additional Education

Another way of decreasing returns to educational investment is by decreasing salaries and relating them more to the work done rather than to educational qualification (Ndegwa Commission, 1971; I.L.C., 1972) (10). The present trend of starting all graduates at job group 14¹ certainly con-

flicts with this approach. Employers faced with many applicants for jobs tend to upgrade formal education entry requirements. Students, in turn, respond by an increased demand for more formal education. Moreover, to the extent that wages are somewhat tied to the educational attainment of job holders, the going wages for each job will tend to rise (even though workers productivity has not significantly improved) stimulating the demand for education even further. By ensuring that job specifications do not overvalue education, students will be discouraged from seeking levels of education which overqualifies them for the jobs they can realistically expect to obtain. The government can take direct action on this matter since it is the major employer of graduates and it is there where many of the modern sector jobs are to be found. Dore (1976) stresses the importance of avoiding reliance on learning achievement tests, recommending instead the use of aptitude tests as a way to avoid credential inflation.

In terms of salaries, historical experience has shown that it is possible to lower the salaries of graduates. Turkey in the 1930s and 1940s reduced the government pay differential for university graduates and led to a decline in the demand for university training in Turkey (Ozelli, 1968). To some extent this narrowing of the wage differential is occurring in East Africa. Berg (1969) reports that there have been very few increases in upper level civil servants scales since the mid-1950's while wage rates of unskilled and less skilled workers have risen markedly. Vandemoortele (1984) provides specific figures comparing the average wages of various employment classifications in Kenya in Table VIII. Despite the improvements, the differential is still massive.

Another method in which returns to educational investment can be reduced is by extending the period between completion of secondary schools and entry to University. The effect of this is that it increases the 'time

TABLE VIII. RELATIVE WAGE RATES FOR DIFFERENT EMPLOYMENT CLASSIFICATIONS
(Vandemoortele, 1984, p. 17)

Job Classification	Wage Ranges (Unskilled = 1.0)	
	1972	1982
Directors and General Managers	11.8	7.9
Middle Level Executives and Managerial Personnel	7.9	4.2
Clerical	3.5	2.7
Teachers	2.4	2.0
Skilled	1.5	1.9
Unskilled	1.0	1.0

costs of those willing to pursue University education and reduces the length of time available to accrue post-university graduation income. In addition, students could join the labour force and get a better picture of the realities of work and the opportunities available.

III. Increase Opportunity Costs and Alternative Expected Returns

Just as any reduction of expected lifetime earnings for the highly-educated will tend to reduce the demand for education, any increase in expected lifetime earnings for the less educated will similarly retard the growth of demand. This serves to increase the opportunity costs of pursuing additional education as well as reducing the lifetime income advantage associated with further education. Ultimately, reductions in the returns to additional education may help alter the constellation of choices facing the individual household. When alternative investments are available that have equivalent expected returns to education, then the insatiable demand for education may subside.

IV. Allow the Probability of Unemployment to Reach its Free Market Level

Another way to reduce the expected lifetime earnings of highly-trained manpower is to allow for the probability of unemployment to rise. Any

efforts, as mentioned previously, to intervene in the employment market by assuring absorption into the formal sector works contrary to reduction of demand for higher education. Eventually it is possible that, despite the wage differential, the unemployment rates among the highly-trained will reach, as Edwards and Todaro (1974) observe,

such substantial proportions that people will start to question the utility of the heavy investment of time and money in an educational process which gets increasingly stretched out and for which the tangible rewards are becoming more and more uncertain. (p. 317)

V. Improving Information Systems

An essential feature of any set of recommendations directed at the manipulation of an economic identity is the free flow of information to decision-makers. Assuming that the individual Kenyan operates in an economically rational fashion (there is considerable evidence to support this premise: Paterson, 1980; Martin, 1983), accurate information regarding careers, employment probabilities and returns is critical (Sheffield, 1967; Rastad, 1970). Such efforts should start well before the students embark on university education. Furthermore, at the present the crucial decisions which determine career choices seem to be made in total ignorance of what those careers mean in terms of work and life-style (Dore, 1976).

The free-flow of information is only one impact of an improved career information system. Sanyal and Yacoub (1975) advocate the creation of an education-employment information system to be used by students, graduates, and national decision-makers. One of the goals of this system would be to help alter students' attitudes before they enter the labour market so that they fit more closely with available opportunities.

GOVERNMENT CONTROL ALTERNATIVES

Unlike attempts to regulate the demand for education by allowing any excess supply of graduates to reduce the probabilities of employment or to put a downward pressure on wages, the government can impose policies that directly restrict the numbers of positions available in the educational system or tie entry to post-secondary training to employer sponsorship.

VI. Quota System

Quantitative controls on the number of students entering university is frequently mentioned in the literature (Blaug, 1973; Woodhall, 1981). The size of such quotas is determined by two criteria: to what extent the government desires to commit money to higher education and the national demand for manpower. Although as an instrument of manpower policy quotas are only as efficient as the ability to predict manpower needs, they do offer an immediate way to curb educational expansion.

VII. Tying Access to Higher Education to Employment Sponsorship

Another measure that has gained favour in the literature is permitting only employer-sponsored students access to higher education. University training, therefore, would be available to only those students that would be assured of employment upon completion of their training. The employer would assume the cost of the University training. A 'closed' system of this nature would better ensure that education was utilized by the graduates. In addition, incentives would exist for employers to equate training with job requirements (deterring credential inflation) and to train only that number necessary to meet their needs. As King (1985) acknowledges, this system is most likely to work successfully in science and technological fields. That is not to say, however, that far broader application is

impossible (Dore, 1976).

Dore (1976) begins by suggesting that careers should actually be started at an earlier age. The function of sorting and selection of workers would occur within the work organizations rather than within the educational system. This would allow post-secondary institutions to function as training institutions with all training being in-career learning. For example, Dore would advocate no longer recruiting university graduates for the civil service. Instead, employees would be hired at a younger age and begun as clerks; some would then be promoted on the basis of performance or internal aptitude test results and provided such training as would be necessary. Similar sequences could apply in other professions,

Future engineers could train first as craftsmen; some of the craftsmen could be trained as technicians, and the ablest of those sent off for full training as engineers. Doctors could begin as medical assistants . . .; architects and accountants and quantity surveyors could begin as clerks and be selected for professional training . . ."
(p. 143)

Certainly this proposal is not without its difficulties. One problem could be the criteria used in selection for promotion and additional training within the organization. It could be more subject to favouritism or perceived favouritism. Whereas, performance on standardised examinations, the current selection mechanism within the educational system, has wide-acceptance as an objective method of allocating further education.

CURRICULAR REFORM ALTERNATIVES

Certainly few policy options have received more press than curricular reforms. Whether recommendations are directed toward deschooling society (Illich, 1971), vocationalizing the curriculum, educating for self-employment, or maintaining a broad, non-specialized, flexible approach (Psacharopoulos and Loxley, 1984), they have intended, in part, to improve the relationship between what students learn and the demands and conditions of

the job market. When addressing the situation facing Kenya -- an expanding educational system without comparable growth of formal sector employment -- curricular reform aimed at making primary education terminal for the vast majority certainly constitutes a reasonable strategy.

VIII. Terminal Education at the Primary Level

Currently, in Kenya, an attempt is being made in this direction in the form of '8-4-4'. Apart from changing the number of years required at each level of education, changes in the content of what is being taught are also being implemented. At the primary level, the curriculum will focus on preparing the majority, who will not find places in secondary school, rather than, as has traditionally been the case, preparing all to continue their schooling even though few are able to do so.

These reforms must effectively de-link "primary and secondary schools in the minds of students and the general populace" (Court and Kinyanjui, 1985, p. 21). This can be done, for example, by relating the curriculum to the occupational requirements of rural inhabitants, i.e., small farm agriculture, artisan and entrepreneurial activities or rural public and commercial services. Such curricular and task-related reorientations of rural learning systems may help in the sense that education will make students more self-reliant. Hence, issues which educational planners should be addressing themselves to are those of finding the most relevant skills for self-employment in agriculture and the informal sector (Court and Kinyanjui, 1985).

Without such substantial curricular changes, the 8-4-4 system may fail to achieve its intended objectives. Additional difficulties will be encountered if the rewards system continues to reinforce the graduates of the traditional educational system. Without accompanying measures to cor-

rect this imbalance, 8-4-4 will conclude with the same lack of success as characterized attempts to vocationalize education in Kenya and other countries of the world (Foster, 1965; Blaug, 1973; Grubb and Lazerson, 1975).

CONCLUSION

This paper has not intended to devalue the accomplishments of the educational system in Kenya, not the least of which has been the substantial provision of highly-trained manpower. Nor has it intended to imply that the stock of appropriately-trained manpower is yet adequate. What has, however, been illustrated is an untenable relationship that exists between educational demand, the expansion of educational opportunities, and the employment of, in this case, university graduates. It is a relationship that can best be characterized as being on an upward spiral with every turn requiring the commitment of greater and greater public sector resources.

Policy recommendations suggesting possible intervention strategies conclude the paper. Although a number of alternatives were reported, the pervasive theme and intent was to reduce the role of the government in the funding of higher levels of education and the provision of employment for the highly-trained. At the same time, greater responsibility is shifted to the individual consumer of education to be informed of available training alternatives, to assume a greater proportion of the costs of that education, to be aware of employment prospects and realities, and to be prepared to accept the outcomes, whatever they may be.

NOTES

[1] No paper is the product of a single hand. We would like to express our appreciation for the support and advice of Dr. Douglas Paterson, Barbara Grosh, Jan Vandemoortele, Ruth Kapia, and Amy Oyeki. Mistakes that remain in the paper, however, are the responsibility of the authors alone.

[2] One of the poorest paid of professions, teaching, provides an excellent example of the additional reward given for each increment in the level of training. Primary leavers, trained for two years, are paid 531 pounds per annum. 'O' level leavers, trained for two years, are paid 864 pounds per annum. 'A' level leavers, trained for an additional year, earn 1170 pounds annually. University graduates, with a BEd course, earn 1494 pounds annually. (Teachers Service Commission)

[3] Bennell describes the existing hiring practices. This is not to say that the hiring of technically-trained personnel, e.g., university-educated engineers, would not be beneficial. Pack (1972), in his interviews with manufacturers and visits to 42 plants in Kenya, observed,

A useful typology in analyzing the role of managers is to divide them into two categories: those with technical training or a background in production and those without such education or experience. The technically trained understand why operations are performed the way they are and the possibility of using other methods. . . . Instead of copying a U.K. process, they are able to make the small, but important, adaptations which allow a more labor intensive process to function properly. In contrast, managers with sales or finance experience and training or those who have extended wholesale and retail operations backwards toward manufacturing appear to lack this ability. They often duplicate the Western process in toto, following the advice of consultants and machine salesmen. (p. 10)

[4] The Country Development Strategy Statement FY 1984 (Agency for International Development, 1982), in its analysis of the structure of production, notes that the "central government's budget rose from 20 percent of GDP in 1964 to 37 percent in 1980." Yet the contribution of the public sector to "total output has grown only marginally since the early years of independence, increasing from 24.1 percent of GDP in 1964 to 27.1 percent in 1980". This lack of growth in contribution to total output has, therefore, occurred "during a period when government has substantially increased its share of both domestic expenditure and wage employment" (p. 17). It must be acknowledged, however, that the use of GDP to assess the contribution of the public sector to total output can result in very misleading conclusions.

[5] President Moi's commitment to employ the graduates of the University of Nairobi was reiterated at the graduation exercises, December 17, 1984.

[6] See Men Only, the March, April, and May issues, 1985, for a series of three articles by Caleb Muchungu regarding the post-graduation experiences of university graduates in Kenya. It documents the growing incidence of underemployment among the most educated.

[7] Ironically, the worse the educated unemployment situation becomes, the greater the pressure becomes for expansion of educational opportunity. If

one completes undergraduate studies and is unable to garner the kind of employment he/she expected, then a logical alternative is to pursue additional education. As Dore (1976) notes, "The mechanism of 'qualification escalation' ensures that . . . the higher the educational qualification one gets the better one's chances of getting some job" (p. 5).

[8] The most recent budget presentation acknowledges the untenable nature of this situation,

There is evidence that Government employment has expanded excessively. . . . As a result, we are not providing the Civil Service with the complementary resources it needs to be productive . . . This development is not surprising to anyone who has compared the growth of public and private sector wage employment in Kenya over the past ten years . . . A continuation of the recent growth path of Government employment is a financial and even a mathematical impossibility. (Daily Nation, June 14, 1985, p. 4)

[9] Court and Kiryanjui (1985) restate the case for education concluding that, "the recent accumulation of research findings suggests that this faith in education as an instrument of development is indeed not misplaced."

[10] Although the government has the ability to control civil service salaries and, therefore, influence greatly the returns to education, the issue is far more complex. This is discussed by Gyugi (1984) who observes that wages for the highly-trained are set by the local private sector which, in turn, looks to international labour markets to justify its salaries. Then, if the public sector does not achieve some measure of comparability, the government will invariably loose the services of the most able staff.

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