Chapter
XII

MOVEMENT OF SKILLED LABOUR IN THE CONTEXT OF FILLING REGIONAL MANPOWER GAPS

Introduction

The labour market implications of CSME can be examined through five (5) effects: employment, labour mobility, labour costs, human resource development and regulatory/institutional.[1]

Employment Effect: The CSME can result in job destruction effects occasioned by the rationalization of production across countries in order to enhance efficiency (lowering the unit cost of production) and/or job creation effects brought about by the expansion of production and the creation of new economic opportunities. Since labour demand (employment generation) is a derived demand, an increase in the demand for regional goods and services in both the regional and extra-regional markets results in an expansion in employment. Economic activity which focuses on enhancing international competitiveness of regional goods and services would result in export expansion and hence greater employment growth (given the type of technology being used).

The employment impact can be propelled through the long-term hiring of labour, short-term labour contracts and induced employment growth which emerges from the feedback effects of regional industries/enterprises on national industries/enterprises. The extent of employment creation would depend on the nature of the technology and the degree of linkage among the enterprises/industries.

Labour Mobility Effect: Labour mobility to meet labour demand is seen as an important aspect of CSME, namely, the creation of a common labour market. CARICOM governments have adopted a phased approach to labour mobility within the region. The first phase of labour mobility involves the movement of certain categories of skilled and professional labour and entrepreneurial expertise. There are however concerns with respect to contingent and social rights associated with spouses and children of these workers. This issue has been dealt with on a case by case basis (that is, administratively). Work permits are still needed for persons outside of the approved occupational categories although there are plans for the free movement of all categories of labour by 2008. Economic activities need not warrant the free movement of all

categories of labour; but only those categories which are strategic to a given component in the production process. Labour mobility will depend on the organization of production across and within the member states.

It should be noted that these are social and political aspects associated with the free movement of labour [see Wickham et al 2004]. These aspects (or costs) can constrain the degree of labour mobility within CARICOM member states. In many respects, labour mobility within the Region has been much lower than mobility outside the Region.

Labour mobility involves some degree of search costs due to the imperfect information available on job opportunities and the distribution of wages in the region. High search and relocation costs can constrain the degree of labour mobility within the CSME unless these costs are met or reduced by employers or the governments.

Labour Cost Effects: Labour mobility within the region has been viewed as a means of not only meeting labour demand needs but also equating wage rates/salaries for different categories of labour. It has been argued that the free mobility of labour can lower the real unit costs of production by increasing factor productivity and lowering real labour costs. The extent to which the free movement of labour can lower real unit costs of production depends on the share of labour in total production costs. The reduction of real unit costs can enhance the international price competitiveness of Caribbean exports.

The free movement of capital (without labour mobility) can also affect wage/salary differentials among immobile unskilled and semi-skilled labour. The mobile skilled labour can earn 'rents' because of their scarcity in the labour market. Indeed, there has been a recent call to institute minimum wage legislation in order to prevent wages from going below a floor in the context of free movement of labour. Such a minimum wage would be related to a 'living wage' in the respective countries.

It should be noted that in international trade theory, it has been argued that under certain conditions, the free movement of commodities with a common market will eliminate commodity price differentials and hence affect the equalization of factor prices as the nominal wage rate.

In addition to wage costs, non-wage labour costs (both mandatory and negotiated) can also affect the degree of labour mobility and also the relative costs of production. Such non-wage labour costs also affect both the demand and supply sides of the labour markets. On the demand side, high non-wage labour costs can reduce the number of hires or shift production to countries with lower non-wage labour costs. On the supply side, the higher the component of non-wage labour costs that the employee has to pay (for example, national insurance, special levies, unemployment insurance), the lower the probability of the worker migrating to another country. The worker therefore has to take into consideration both wage and non-wage labour costs, relocation costs and other costs in making his/her migration/mobility decision.

In addition, exchange rate differentials compared with price differentials among the member states can also affect the mobility of labour.

Human Resource Development Effects: The development of the CSME has implications for improving the quality of human resources available to meet current and future demands of the labour market. Economic growth and development can be constrained by the nature of human resource development in the region, hence the need to import labour services from outside the Region. The expansion of production within the CSME can also promote the development of human capital formation, taking into consideration the time taken to train and educate persons. Both the productivity and flexibility of workers would be enhanced by production integration and expansion. Production integration planning must therefore be synchronized with educational and employment planning for the objectives of CSME to be realized.

Regulatory and Institutional Effects: The operation of the CSME requires a regional approach to the regulation of the labour market in order to avoid discrimination, segmentation and polarization. There is a need for the harmonization of labour legislation and greater cooperation among labour unions and employer associations (for example, some form of social partnership).The labour market must also be supported by adequate social safety nets to protect persons affected by job destruction effects and adequate labour market information systems to alert participants to changes taking place in the market.

Some of the above-mentioned issues will be discussed in the context of filling manpower gaps as the Region marches on towards a genuinely integrated labour market to serve the needs of a CSME.

A. Structure and Participation Characteristics of CARICOM Labour Force

1. Population and the Labour Force

The size, composition, distribution and growth of the population all have an important influence on the structure of the economy, the labour force, and present and future employment opportunities.

There has been a significant slow-down in the growth rate of the population in the Member States of the CSME. Some populations are growing marginally, while others have declined (Table XII.1). Changes in population growth are brought about by several factors, some of which cause fertility rates to decline. The proportion of elderly in the population is increasing, while the proportion of young is decreasing in general across the region. The economies will therefore have to channel more of their resources into providing good and services into meeting the growing demands of the

elderly such as health care facilities. There has been a steady increase in the size of the 'care economy' in the Region.

Table XII.1: Population and Labour Force Average Growth Rates in the Caribbean 1998-2004
Annual Average

Countries	Percent	
	Population Growth	Labour Force Growth
Antigua	2.3	n.a.
Barbados	0.4	0.9
Belize	2.8	3.6
Dominica	-0.1	n.a.
Grenada	0.9	n.a.
Guyana	0.4	1.3
Jamaica	0.8	1.4
St. Kitts/Nevis	2.6	n.a.
Saint Lucia	1.2	n.a.
St. Vincent and the Grenadines	-0.5	n.a.
Suriname	1.0	2.6
Trinidad and Tobago	0.6	2.0

Source: World Bank Group: http://www.worldbank.org.data

However, emigration from the region is an important factor, which affects not only the size of the population and labour force, but also the quality of the labour force, as a significant proportion of the emigrants comprises the skilled labour needed for the development of the CSME. The population of the CSME, estimated at 6.1827 million in 2002, is unevenly distributed among the fourteen states. Individual population range from as high as 2.62 million for Jamaica to as low as 4.5 thousand for Montserrat, a country devastated by volcanic eruptions. The mean population is 468,185 and the coefficient of variation is 1.58. The five largest States, called the Most Developed Countries (MDC) have more than 82% of the total population and 90% of the geographic area. The urban population is rising owing to the unequal distribution of incomes and social amenities in favour of cities and towns and the high levels of unemployment and underemployment in the rural areas. Overall, approximately 45% of the population is below 15 years of age, while this figure is near 50% for some countries, putting severe strain on facilities providing social welfare, child care, education and training.

With the exception of Antigua and Barbuda, Belize and St Kitts and Nevis, the population growth rates of CARICOM Member States have been less than 2 percent per annum over the period 1998-2004. In the cases of Dominica and St Vincent and the Grenadines, there has been a slight fall in the population. The labour force growth rates

have largely mirrored the population growth rates over the 1998-2004 period. The population growth has been influenced by declining fertility rates and death rates, as well as by net migration rates. Fertility rates have been lowered owing to scientific, sociological and other factors, while death rates have been reduced owing to advances in medical and health sciences, now challenged by the HIV/AIDS epidemic.

Net migration also plays an important role in population dynamics with two patterns observed. One is the intra-regional migration, as economic migrants move from low-income to high-income countries, supplying the skills needed to sustain the buoyant tourism, construction and other sectors. The other is the movement of economic migrants to North America and further afield, in search of a better life. This latter is potentially a major threat to the CSME, as it involves a great loss of high level manpower, or brain drain, a colossal loss of investments in human capital, not compensated for by remittances.

An examination of the educational background of migrants to OECD countries indicates that a high percentage of them have tertiary level education. The high rates of migration for persons with tertiary level education range from 36 percent for the Bahamas and Saint Lucia to 90 percent for Suriname in 2000 (Table XII. 2). It is estimated that between 1990 and 2003, 745,289 persons emigrated from Jamaica to the USA, UK and Canada, that is, an average annual flow of 21,920 persons. Many of these migrants have been in the professional/technical/managerial and administrative class (30.8 percent of all emigrant workers between 2000 and 2003). Estimated remittances from the flow of emigrants constitute about 0.3-11.0 percent of GDP over the 1980-2002 period[2]

In recent years, the flow of migrants to the USA, UK and Canada, especially nurses and teachers, has created a shortage of these categories of labour in the Region (Table XII.2). Some countries have resorted to the importation of the labour services of nurses from India, Africa and East Asia. For example, nurses from India and the Philippines have been used in Trinidad and Tobago and Barbados.

Table XII.2: Percent of the Labour Force that has Migrated to the OECD Countries and the USA by Level of Schooling, 2000

(%)

Country	Level of Schooling					
	Primary		Secondary		Tertiary	
	OECD	USA	OECD	USA	OECD	USA
Antigua and Barbuda	6	5	36	29	71	63
Bahamas	2	2	12	10	36	36
Barbados	10	4	24	20	61	46
Belize	6	3	49	58	51	51
Dominica	8	6	61	53	59	47
Grenada	10	5	70	60	67	55
Guyana	14	6	34	30	86	77
Jamaica	8	4	30	27	83	76
St Kitts and Nevis	10	7	37	29	72	63
Saint Lucia	3	2	32	33	36	25
St Vincent and the Grenadines	6	3	53	50	57	42
Suriname	18	-	44	-	90	-
Trinidad and Tobago	6	3	21	17	78	68

Source: Mishra, 2006

The potential labour force comprising persons fifteen years and older is declining in the region, while the labour force participation rate is increasing owing to technological, social and economic factors affecting the family institution. While the male labour force participation rate is declining or remaining constant, the female participation rate is experiencing positive changes, resulting in greater feminization of the labour force.

The declining or constant male participation rate is due largely to a longer period of schooling, later labour force entry and earlier exit made possible by the provision of pensions, higher incomes and, ironically, the increased female labour force participation which reduced the importance of males as the head of households or main breadwinners. The changes in participation of women and men have implications for the manpower planning.

In the future, the population and labour force will grow at a slower rate and will be older. The labour force will be more feminine and educated, with women taking over jobs, which are stereotypically male dominated. As a result, wages in those occupations may become depressed causing men to gravitate away from those jobs. Male unemployment can therefore be expected to increase.

With more women entering the labour force, household chores will be increasingly commercialized creating more income earning opportunities in the services sector. These jobs, however, will not require high level skills; hence will not exert much pressure on the education and training systems.

2. Employment and Unemployment

Growth rates have been modest (TableXII.3) and the economies have not been creating an adequate number of jobs to absorb the available labour supply, hence the unemployment rates of the Member States have been relatively high. Although the measurement of unemployment varies across countries (especially the reference period used for job search), unemployment rates varied between 9.4 percent and 21.1 percent over the period 2000-2002. Unfortunately, several countries in the region do not have up-to-date data on the nature of unemployment. However, the perception of high rates of unemployment, especially among the youth, has been a fetter on the reaching of CARICOM consensus free mobility of labour amongst unskilled and some semi-skilled categories of labour.

Table XII.3: Average Annual Growth of GDP and GDP per Capita

Country	Avg Annual Growth of GDP		Avg Annual Growth rate of GDP per Capita	
	1984-94	1994-2004	1984-1994	1994-2004
Antigua	5.2	3.5	4.6	**1.2**
Barbados	1.0	2.0	0.5	1.7
Belize	9.3	5.8	6.5	2.8
Dominica	3.7	0.3	3.9	0.5
Grenada	4.3	3.7	3.5	2.9
Guyana	1.1	1.9	1.4	1.5
Jamaica	4.1	-0.1	3.4	-0.8
St. Kitts/Nevis	5.8	3.3	6.3	1.5
Saint Lucia	8.3	1.2	6.7	-0.1
St. Vincent/Grenadines	4.9	2.4	4.0	2.7
Suriname	0.6	2.4	0.0	1.5
Trinidad and Tobago	-1.2	5.3	-1.9	4.8

Source: The World Bank Group, 2004

Growth in employment is closely associated with the fortunes of the major economic activities in the country. Employment in Trinidad and Tobago tends to be buoyed by rising oil prices which, however, affects employment in non-oil producing countries negatively, leading to increased unemployment. A rising price for sugar has a favourable effect on employment and a dampening effect on unemployment in the sugar producing countries. The narrow export bases of these economies make them extremely vulnerable to changes in the prices of their exports, over which, as price takers, they have no control. As high cost producers in a world where technological change both reduces costs and introduces cheap substitutes, the exports of these countries face a difficult future and, by extension, the production of exports and the employment and incomes they generate will be adversely affected.

Youth unemployment is the main labour market problem in the Region. Recent work on the Caribbean labour market highlights the main features of the issue:

- Unemployment levels among females tend to be less than levels among males, while unemployment rates tend to be higher;
- Unemployed youth have low levels of education and training attainment and little or no work experience;
- Young women in the 15-19 years of age cohort tend to be the most vulnerable labour market group;
- Rural youth experience marked disadvantages in obtaining employment. In some cases, urban youth in 'ghetto areas' also experience difficulty in finding jobs;

- Young persons who receive vocational training have a high probability of obtaining employment.

Several youth training programmes have been established to ease the transition of young persons from the world of school to the world of work: youth service, youth entrepreneurship, skills training etc.

Caribbean countries must restructure and diversify their economies based on their dynamic competitive advantage. The nature of employment has been changing in the region as a consequence of the emphasis on private sector led growth and the right-sizing of the public sector. The public sector has been retrenching workers, but the private sector has been unable to absorb them. The private sector itself has been increasingly employing labour-saving technology to remain competitive, and so, has been downsizing its labour force. The net effect is that unemployment in the formal sector of the economies has increased, forcing the unemployed to seek or create jobs in the informal sector. This is turn has had a negative effect on standards of living, since informal sector jobs are not as rewarding and as secure as formal sector jobs. Another side effect of this process is the development of underground or illegal economic activities.

The available data for selected Caribbean countries: Barbados, Jamaica, Saint Lucia and Trinidad and Tobago indicate a growth in the number of persons categorized as self-employed (in both formal and informal sectors). The growth of this category of worker has been partly due to the restructuring process in private sector companies and, to some extent, the reduction in employment opportunities in the public sector. It is expected that as the CSME proceeds, this category of worker would become more prominent in the regional labour market in the context of 'rights of establishment'.

Unemployment is most severe among youths and females. Unemployment may not be as serious a problem for young men and women as it is for female heads of households from a short-run poverty perspective, but in the long-run youth unemployment deprives the future main workforce the opportunity to hone their skill through learning by doing.

Data on wages and salaries on a time series basis are only available for Barbados, Jamaica and Trinidad and Tobago. The real wage has generally declined in these countries since the mid 1980s as price inflation has outstripped increases in nominal wages. The power of the labour union movement in the region has waned somewhat over the past two decades, so that the upward pressure on nominal wages has been tempered. In Jamaica, there has been a recent upward trend in real wages, while in Barbados and in Trinidad and Tobago, real wages have remained relatively constant.

3. Structural and Sectoral Changes and Demand for Labour

The process of modern economic growth is characterized by vast changes in economic structure. In the first stage, the bulk of the economy's output is derived from the primary sector consisting of agriculture, forestry, fishing, and mining which employ the bulk of the resources. During the second stage, the primary sector declines, giving precedence to the manufacturing and processing sector, while in the third stage the services sector becomes the dominant sector.

This triple sectoral classification of economic activities is based on three (3) major forces

- Growth in per capita income, Engels' Law;
- Maslow's needs hierarchy, and
- Technological improvements (Slow growth of technology in the services sector).

Growth in per capita income, combined with high income elasticity of demand for services, causes a large increase in the demand for services. The slow growth of technology in the services sector implies relatively slow growth in productivity there, and hence high employment to meet the rapidly growing demand for services.

The decline of the primary sector is therefore based on the low income elasticity of demand for its output or sluggish demand coupled with high labour productivity growth fueled by rapid technological changes. The labour input/output coefficient declines fast and so do the labour requirements. On the other hand, the income elasticity of demand for the products of the manufacturing sector is high, so as income grows demand for output of the sector rises. The rapid development of technology, however, catches up with demand and the demand for labour reduces over time. The services sector was thought to be resistant to technological innovation, hence productivity growth was slow there. On the other hand, the combination of income growth and high income elasticity caused demand to grow rapidly in this sector. The service sector was therefore expected to absorb labour released by the other sectors.

The tri-sectoral hypothesis has been criticized on several grounds. In the first place, the service sector is not homogeneous, but consists of several traditional and new activities. While productivity growth is slow in some industries, other services industries adopt new technologies as rapidly as the best. Rapid price increases for services will also dampen demand and reduce the growth of the sector. As some services become more expensive, means of substituting for them will be adopted, for example Do-it-yourself (D.I.Y.), television, self-service gas, bakers, super-markets, and restaurants.

There are several forces driving sectoral changes:

- The globalization of economic activity;
- The rapid international spread of information and communications technology;

- Continuing demographic and labour force changes;
- Privatization of state-owned-enterprises (SOEs), deregulation and liberalization;
- Rapid economic growth in some developing countries.

The process of integration of national markets into a global market is similar to the integration of the national markets of CSME states into one market. It is facilitated by the rapid international spread of information and communications technology. Globalization enlarges the marketing and trading opportunities for CSME member states, allowing them to expand production of traditional products and to exploit markets for new products. Countries in the region have been expanding their tourism facilities, establishing international call centres and off-shore financial businesses. These export-oriented production activities are associated with good quality, high-paying jobs. The activities employ the latest technology and require a labour force highly trained in the use of modern technology.

The rapid international spread of technology provides opportunities for the countries to improve their competitiveness, by increasing labour productivity and reducing the cost of production, while simultaneously destroying industries producing with the old technology (the Schumpeter effect). To reap maximum benefit from the new technology, the members of the CSME must actively and vigorously promote the development of a flexible labour force.

The workforce must be flexible to respond to the need for more or fewer hours of labour time, but the labour force must also be flexible to participate in multi-tasking, so that the firm can easily change its product lines in response to changing demand conditions and production techniques which are undergoing rapid economic changes. This flexibility may be contradictory to the first since high human capital investment by the firm will be deterred by high rates of labour turnover.

The sugar industry has experienced a decimation of its labour force, but the retained work force is becoming more skilled. The liberalization of trade, the international integration of markets and the spread of technology are all disciplines that are forcing the industry to find means of achieving and maintaining competitiveness or giving way to more efficient players. The Caribbean countries are regarded as high cost sugar producers. St. Kitts-Nevis has chosen to bow out of this industry, while Guyana is taking steps regarding innovating and diversifying to meet the challenges of the evolving sugar regime. Barbados has made a decision to switch from a sugar industry to a sugar cane industry where the cane would be used to produce specialty sugar, ethanol and electricity.

Other factors driving sectoral change and shaping the labour market are demographic and labour force changes. The Member States have been experiencing rapid demographic transition. The birth and death rates in the States are relatively stable at rates lower than those which existed in the fifties and sixties. Dramatic declines in the death rates have resulted in life expectancies at birth exceeding 70 years, except in Guyana where it is 63 years with female longevity exceeding that of males.

The average age of the labour force will increase due to longevity and later labour force entry and exit. Barbados, for example, has recently adjusted its pension arrangements to respond to an ageing labour force. This has important implications for the labour force, the labour market and manpower strategy. The domestic demand for goods and services desired by the aged will grow dramatically. Skills demanded will grow in the area of services, in particular the care economy, including highly skilled professional medical personnel, doctors, nurses and the elementary nurse and home health aides.

4. Employment by Major Industry Group and Occupation

Sectoral employment has followed the sectoral output changes in the economy. Agriculture has been declining as a contributor to employment, even in the OECS where agriculture has traditionally been important. In Antigua and Barbuda, agricultural contribution is the lowest at about 4 per cent of the labour force. This is even lower than in the petroleum dominated economy of Trinidad and Tobago where agriculture's share of employment is approximately 6.9 per cent. In Jamaica, the contribution of agriculture to employment, though still very significant, has been declining steadily, owing to a number of factors, including advancements in technology and increased competition from free trade, the impact of which have been felt in the banana and sugar exporting industries.

Employment in the manufacturing sector is more or less stagnant. Slow growth in output, improvements in technology and stronger competition made possible by more liberal trade are responsible for the employment stagnation.

The sector that has been absorbing the labour force is the services sector. This sector contributes as much as 60% to 70% to employment. The largest share of employment in Trinidad and Tobago in 2003 (66.8%) was provided by the services sector. In Jamaica, the services sector provided jobs for 70% of those employed in 2001, with the share of women employed in the sector being 84.5%.

Employment creation is greatest in tourism and hospitality, real estate, community, social and personal services, wholesale and retail, transport, storage and communications, finance, insurance and real estate business. Construction also provides a significant number of new jobs and in Trinidad and Tobago the petroleum industry energizes economic activity.

Further analysis of the services sector shows that jobs were created in the stagnant services sector as well as in the dynamic services sector which is characterized by the use of information and communications technology, resulting in high productivity.

Thus while community, social and personal services may not be very amenable to labour saving technology, banking, finance and communication may be. This means that employment creation will be more pronounced in the former than in the latter set of services.

Employment by sector mirrors the sector's contribution to output. Hence as employment in the agricultural and manufacturing sectors decline, employment in the services sector grows. This growth is however slowed by the application of modern technology which is labour saving. This technology is used in the dynamic part of the services sector and raises productivity and wages there.

Technological advancement is transforming not only the industries in the primary, manufacturing and services sectors, but, also, the nature of work, raising the productivity of the workforce, which is becoming more skilled. The industrial shifts which are taking place are largely driving occupational changes. Among the major occupational groups employment in farming, forestry and fishing will grow slowly as the share of the sector in total employment is expected to decline due to the combined effect of technological advancements and competition.

The decline in the manufacturing sector will result in stagnant or slow growth of employment of operators, fabricators and labourers. These workers are the low-to-semi-skilled blue-collar factory workers who are disadvantaged by the stagnancy and decline of the manufacturing sector.

However, there are areas of goods production employment that would experience growth. Employment in food processing will expand as agriculture is transformed and its outputs go into agro-processing. But textile and apparel employment face strong competition from imports and cheap labour in other export processing zones outside of the CSME. Furniture manufacturing for the tourism sector and for export outside of the CSME holds out promise and could contribute to employment of carpenters and joiners.

Occupations classified as Elementary Occupations are likely to experience a decline in the CSME, as they have in the developed countries, as advancements in technology, such as tractor mechanization, destroy simple and routine tasks performed by agricultural, fishery and related workers. Evidence of this decline is seen in Trinidad and Tobago where the occupational category, "Elementary Occupations" experienced the largest decline in the number of jobs. This is consistent with the expectation of reduction in the number of jobs requiring low levels of skills, education and training. The category "Clerks" is expected to decline as computer technology will increase productivity, reducing the demand for workers in this category.

Among the occupations that are growing the fastest and would require the greatest amount of skilled persons are:

- Executive, Administrative and Managerial Workers;
- Professional Workers;
- Technicians and Associate Professionals
- Sales Clerks;
- Services Workers and Shop and Market Sales Workers

The three highest ranking occupational groups are expected to increase in all the industrial sectors, whether in the rapidly increasing service sectors, the stagnant services sector or stagnant or declining agricultural and manufacturing sectors. They consequently require a high level of human capital investment in tertiary level education and training. Such education and training must include technological and vocational, college and undergraduate, and graduate instructions. The costs of such programmes are high and will put a severe strain on public sector budgets, many of which are already in deficit. The other occupational group which is expected to grow is the category of "Service Workers and Shop and Market Sales Workers." Jobs for these workers will be restricted to the services sector and will not require education beyond the secondary level.

These conclusions are substantiated by the changes taking place in the economies, as evidenced in the Labour Force Bulletin for Trinidad and Tobago 2003. There it is recorded that 'the occupational categories, "Professional", "Service Workers" and Shop Sales Workers" and "Clerks" contributed substantially to growth in jobs".

The National Training Agency of Trinidad and Tobago published a report on four Labour Market Surveys conducted during (Oct-Dec) 2000 and (June-Dec) 2003. These surveys were aimed at providing information on the short-term dynamics of the labour market to guide researchers, training providers, government planners, students and the unemployed responding to changes in the sectoral demand for labour. While several sectors have featured in one or other of the reports as contributing to employment, the sectors that have consistently ranked among the top three in terms of vacancies are Distribution, Finance, Insurance, Real Estate and Business Services.

Information on the sectoral changes in the Jamaican economy accompanying IMF, World Bank and other IFIs intervention and subsequent analysis indicate similar changes to those discussed above. The Agriculture, Mining and Manufacturing sectors, in particular, were net losers of jobs.

Data on the most frequently advertised jobs in the Jamaican labour market show that the top five areas fall into managerial, teaching, marketing, customer service and accounting occupations (Table XII.4) These jobs tend to be skilled or semi-skilled and fall largely within the services sector. Jamaica has produced a large number of trained persons in the craft and related occupations and in the professional occupations; however there is still a gap in meeting labour market needs as several professionals and para-professionals migrate annually to North America (Table XII.5)

Table XII.4: Most Frequently Advertised Occupations in Jamaica
May 1, 2002 – December 31, 2005

Rank	Occupational Title	Number of Advertisements
1	Director/Manager	2883
2	Lecturer/Instructor/Teacher/Educator/Principal	2404
3	Marketing/Sales Rep/Associates	2161
4	Receptionist/Customer/Client Services Rep	1012
5	Accountant/Acct Officer/Manager/Auditor	989
6	Security Officer/Guard	790
7	Executive/Pastry/Sous/Chef/Cooks/Baker	708
8	Administrative/Office Asst/Typist/Secretary	687
9	Bartender/Barmaid	578
10	Waiter/Waitress	472
11	Engineer	365
12	Principal/Head of School/Dean	357
13	Consultants/Project Director/Manager/Engineer/Coord	341
14	Information Systems/Network/Computer Specialist	339
15	Nurse	283

Source: http:/lmis-ele.org.jm/labmarket_Analysis.asp

The structural Adjustment and Stabilization programme was responsible for the loss of jobs in the public sector under which Community and Social Services fall. Other Sectors – the Public Utilities, Construction, Wholesale and Retail Trade, Hotels and Restaurants, Transport, Storage and Communications showed increases in jobs.

Table XII. 5

Output of Trained Personnel for the Jamaican Labour Market, 1999-2003

Category	1999	2000	2001	2002	2003	Total
Professionals	5,622	6,444	7,297	6,606	6,527	32,496
Technicians and Associate Professionals	1,103	1,048	707	493	573	3,924
Clerks	3,477	4,278	4,173	10,478	4,020	26,426
Service Workers, Shop and Market Sales Workers	3,478	3,568	4,616	5,935	6,089	23,686
Skilled Agricultural and Fishery Workers	559	684	988	926	881	4,038
Craft and Related Trades Workers	,7891	8,005	7,147	10,303	10,175	43,521
Total	2,2130	24,027	24,928	34,741	28,265	134,091

Source: Planning Institute of Jamaica, Labour Market Information System, 2005

Within the context of the CSME, it is expected that wage and salary differentials would be an important factor driving the movement of labour. Data on weekly wages for selected sectors in the Region indicates that there has been relatively little wage convergence. In the hotel sector, Antigua and Barbuda and Barbados have comparable wages for various posts, while Jamaica has relatively lower wages and the Bahamas and Barbados offer relatively higher than the other countries (Tables XII.6 and XII.7). Although the Bahamas is not part of the CSME, the data suggests that it would be a target country, along with Barbados and Trinidad and Tobago, for some workers who currently receive lower nominal wages and salaries. Workers however ought to consider other factors, such as commodity price differentials, exchange rate differentials, relocation costs, non-wage benefits and contingent rights for accompanying family members in making a decision to migrate to other Member States.

Table XII.6: Weekly Wages Data for Selected Categories of Workers in the Hotel Industry, 2001,

Bds$

Category	Antigua and Barbuda	Bahamas	Barbados	Dominica	Jamaica
Baker	251.49	563.64	289.23	135.28-180.10	
Bartender	233.02	565.50	302.62	126.03-164.78	73.44-163.48
Bell Captain	218.64	324.84	292.28		
Bus Person	211.34	264.00	266.1	65.88-143.36	
Butcher		563.34	289.23		
Dishwasher	209.15	417.00	263.04	107.82-112.90	
Front Desk Clerk	239.08	569.00	289.22		217.02-294.96
Headwaiter	266.67	443.50	302.62		
Laundry Worker	209.15	488.50	269.14	71.74-143.36	73.44-149.85
Night Auditor	239.08	571.16	331.39	102.48-156.66	
Pantry Workers		497.34	269.14	107.82-112.90	
Receptionist	251.49	531.16	289.22	122.98-225.46	78.26-258.36
Security Guard	231.05	450.00	268.62	116.18-231.32	
Security Supervisor	240.54				
Waiter/Waitress	211.34	190.00	289.22	96.63-15.79	73.44-149.85
Wine Steward	211.34	376.34	289.22	107.82-112.90	

Notes: Bds$2 = US $1

Source: Barbados Employers' Confederation: Labour Digest 2001

Table XII.7: Hourly Wages within the Retail, Manufacturing and Construction Sectors in Select Caribbean Countries, 2001

Bds $*

	Antigua and Barbuda	Bahamas	Barbados	Dominica	Jamaica	Trinidad and Tobago
Construction						
Truck Driver	16.23	19.00	11.25-12.55	4.72-6.07	3.46-10.58	5.31
Labourer	7.36	14.00	8.05	2.91-3.66	1.81-4.86	2.73-4.92
Carpenter	10.59	19.00	9.95-10.66	4.72-6.07	4.24-10.01	4.97
Mason	10.45	16.00	12.55	4.72-6.07	4.24-10.01	4.97
Machine Operator	10.57	18.00	10.70-15.86	3.90-4.43	5.72-12.39	2.91
Electrician	17.78	44.00	9.22-12.75	4.72-6.07	4.27-11.85	6.99
Painter	11.19	16.00	12.50-13.30	4.72-6.07	0.61-0.84	3.64-9.77
Foreman	29.37	30.00		10.32-11.13	3.46-16.70	4.96-11.06
Manufacturing						
Lab Technician		17.30	15.35		2.70-18.99	7.08-8.66
Plant Electrician	9.96	20.48	20.31	3.75-8.29	4.18-12.62	7.73
Welder/Fabricator	12.05	21.04	12.90	3.75-8.29	3.50-12.62	8.44-9.25
Product Supervisor	8.52	37.02	25.11	3.88-6.74	2.07-29.26	6.38-8.16
Receptionist	7.59	18.76	10.62	4.98	2.29-5.16	5.18-6.16
General Worker	6.01	12.20	9.33	4.05-4.52	1.52-10.03	3.82-5.12
Payroll Clerk (A/c clerk)	4.38	22.12	12.93	4.08-7.02	3.76-17.60	10.41
Retail						
Cashier	5.80	8.00	5.48-7.53	3.97-6.06	3.34-13.42	3.91-5.41
Van Driver	9.33		8.08-9.10	4.62-9.81	2.29-10.79	4.65
Clerk	8.30	6.70	6.18	3.77	4.60-6.62	2.56-3.99
Porter	6.21	7.00	6.53-8.13	3.07-5.24	2.30-8.49	7.38
Forklift Driver	6.42	12.00	10.30-11.85	2.93-5.00	3.55-10.87	8.20
Messenger	5.48	10.00	6.70-8.13	3.84-4.39	2.29-7.53	5.30-5.69
Security Guard	14.70	10.00-12.00	5.93	3.86-8.72	3.49-13.13	2.33-3.33

***Notes*:** Bds$2 = US$1; Calculations are based on a 40 hour work week
Source: Barbados Employers' Confederation: Labour Digest 2001

B. Shortage of Skills by Major Industry and Occupation

All of the economies in CARICOM experience the issue of having unemployment existing simultaneously with skills shortage. This feature is, however, not surprising given the segmented nature of the labour markets in the Caribbean. The focus of the labour mobility regime in the Region is to assist with the resolution of this problem. The first step in this process is to identify the shortages of skills. As was pointed out earlier, shortages of skills would occur in several industries and occupations unless steps were taken to avoid them. Shortages of skills would be more likely to occur in the dynamic sectors, but instances could occur in the declining sectors as well.

The demand for skills arises as a result of economic growth and replacement needs. Dynamic industries and sectors, which are characterized by expanding output, require increasingly a more skilled labour force to maintain their progress and competitive edge. The demand for skilled labour also arises from the need to replace skills lost for a number of reasons, such as:

- transfers of employees from one job to another;
- retirement, career ending injury or death;
- quitting by workers for several reasons including returning to school, women interrupting their career to care for family and home; and
- emigration, as was referred to earlier.

1. Sectors Experiencing Labour Shortages

A survey conducted by the NTA in 2003 on Trinidad and Tobago found that the expanding sectors included Construction, Communication and Social and Personal Services, while the contracting sectors were Sugar Cultivation and Manufacturing, Finance, Insurance, Real Estate and Business Services, Wholesale, Retail, Trade, Restaurants and Business Services. The unemployment trend in the Construction, Petroleum and Gas, Other Manufacturing, Transport, Storage and Communication, Wholesale and Retail trade, Restaurants and Hotels is downward. Among the main Occupational groups, employment increases occurred among Professional Service Workers, Shop Sales Workers and Clerks.

A Guyana Labour Market Study by Chottepanda (2004)[3] identified labour surpluses and shortages to guide stakeholders, educational and training programme planners, and vocational and career guidance workers. It was also aimed at encouraging training for jobs of the future to reduce job-skills mismatch. He estimated that, between 2004 and 2007, the annual skills shortage for the major products (and hence training need) in Guyana would be an average of 6,000 jobs to meet employment growth and replacement of the workforce. No attempt was made to identify the occupational categories and the possible number of jobs by category. The National Development

Strategy Document (1996) for Guyana also referred to the shortage of skills. It cited one study that found that while 1,200 technically skilled workers were required annually, the technical schools were producing only 400 workers, a mere one-third of the requirement. The situation has not improved significantly since then. The Statistical Unit of the Labour Ministry in the print media in the forth quarter of 2003, estimated the following skills requirements for the major products: sugarcane (1,501), rice paddy (1,436), forestry (1,500), bauxite (241), sugar (542), and rice (240). The other sectors were expected to generate 1,038 jobs.

Jobs losses, gains and net job creation were also estimated for agriculture, manufacturing, services and construction, transportation, storage and communication for the Jamaican economy by 2009. The writers estimated that there would be a net job loss in agriculture as men gain 1,214 jobs, while women would lose as many as 9,000 jobs by 2009. A similar projection was made for the manufacturing sector, where jobs for men would increase marginally, while women lose half of their jobs in the sector amounting to 10,700 jobs, especially in the apparel industry. It is however, in the services sector that net gains would be made. In the wholesale and retail trade, restaurants and hotel sectors, women would gain between 24,243 and 29,503 jobs, while men would gain between 7,725 and a maximum of 10,103 jobs. The tourism industry has already been identified as a springboard for job creation and economic growth. Job growth in the other sectors is projected to be modest. Assuming that the rate of the 1993 – 2001 period continues to 2009, men's jobs are expected to amount to 50,000 while women are expected to lose 12,000 jobs, a net increase of 38,000 new openings.

The best sources of information on present and future skills shortages for any CARICOM Member State come from Trinidad and Tobago where, apart from studies focused on specific sectors, the National Training Agency (NTA), has been conducting surveys of establishments to investigate present and future shortages. The Employers Consultative Association of Trinidad and Tobago conducted a study on the "Exploration of Skills Deficiencies And Skills Deficiencies Information in Trinidad and Tobago". This exploration discussed findings from the following three data sources:

- Quality Consultants (1997), "Industry-Driven Hospitality and Tourism Education and Training Needs Assessment and Monitoring Systems";
- Ernst and Young (2003) "Strategic Compensation Practices Within the Energy Sector"; and
- National Training Agency (2004) "Employees Survey No. 4, June – December, 2003".

The first two sources of skills shortages focused on the hospitality and tourism sector and the energy sector, while the third was most comprehensive, examining sixteen (16) sectors across the economy.

Tourism and hospitality-related enterprises numbering one hundred and thirty-six (136) projected 2016 new job opportunities over the next 3-5 years comprising approximately 40% skilled workers and 31% managers. The most difficult vacancies to fill were those among the managerial (33%) and professional staff (28%), while skilled and semi-skilled (45.6%) and unskilled (46.4%) were less challenging.

Customer relations was identified as the most important need for current and future skills training for all levels of staff, followed by communication, computer literacy and foreign languages (Table XII.8). Managerial training needs included leadership and human resource management. Skilled staff needed training in customer relations, computer literacy and communications, while unskilled staff needed training in customer relations. Technical training in the culinary arts, touring, customer service and ticketing was the most pressing, with maintenance housekeeping, research, diving, horticulture, and wildlife and inventory management were also important.

Table XII.8: Future Training Needs of Trinidad and Tobago

	Managers	Professional	Skilled, Semi-Skilled	Unskilled
Leadership	22.8%	5.9%	7.4%	0.7%
Human Resource Management	16.2%	5.9%	2.2%	0.0%
Financial Accounting	9.6%	3.7%	3.7%	0.7%
Marketing	14.7%	4.4%	8.1%	1.5%
Communication	13.2%	9.6%	17.6%	5.1%
Computer Literacy	14.0%	5.1%	19.1%	2.2%
Customer Relations	14.0%	8.8%	36.8%	14.0%
Foreign Languages	5.9%	4.9%	5.9%	0.7%

Source: National Training Agency, Employers' Survey – No. 4, June-Dec., 2003

The second study focused on a rapidly growing sector – energy, where production was 1462 million cubic feet in 2001 and was projected to increase to 2873 million cubic feet in 2005, or by approximately 96.5%. The Ernst and Young study reported that Professor Ken Julien estimated that additional manpower requirements for the 2002 – 2009 period would amount to 2500 professional engineers or 360 engineers per year, 4,500 engineering technicians or 650 per year, and 1600 skilled craftsmen or 230 per year. The Ernst and Young study also posited that those numbers would be augmented by two factors: (i) technological innovation in plants would increase the technical and staff requirements and (ii) local value added criteria would shift design, engineering and

construction activities to Trinidad and Tobago. This study therefore highlighted the serious shortage of high-level skilled resources which would be faced by Trinidad and Tobago in an industry that is crucial to the vitality of the economy. Information on vacancies indicate high vacancy rates in construction, finance and related services, tourism and hospitality and distribution.

The third study conducted by the National Training Agency (NTA) was considered the most comprehensive. Job vacancies amounting to 1887 were projected to increase to 9,445 new jobs in the medium term. The projections were based on sectoral output growth. While the construction sector led the current vacancies, the distribution sector was projected to provide the greatest number of vacancies, 3,000 or approximately 32 per cent. The dynamic business services group was projected to increase job vacancies from 167, or 9.4 per cent to 1,300 OR 13.8 per cent. Of note also are the increases in personal services from 80, or 4.5% to 1005, or 10.6% and tourism and hospitality from 63, or 3.5% to 1407.

Occupational skills required by sectors included Welders and Fabricators (27), Electricians (30) Painters (28) by the construction sector; Sales Clerks (26), Sales Representatives (30) and Technical/Skilled (13) by the Distribution Sector; Operations Technicians (20), Engineers (17), and Drilling Supervisors (8); Finance, Insurance, Real Estate and Business Services and Data Entry Clerks required (37), Sales Assistants (20), Clerical (12), Transport, Communication and Storage required (25) and Drivers/Crane operators and- Dispatchers/Inserters (15).

The study indicated that some vacancies remained unfilled even when persons with the technical skills were available, because of lack of the right attitudinal characteristics. The four most important of these were good communications skills, honesty, punctuality and hardworking in that order. The four least important traits to firms were teamwork, respect, self-disciplined and being self-motivated. An earlier study had found that in Trinidad and Tobago several firms provided technical and management training in order to upgrade the skill levels of employees but that there were basic skill deficiencies in the areas of work ethic and attitude.

The available data/information indicates that all of the economies face crucial skill shortages in several sectors and at various levels within enterprises. These skills shortages have to be tackled programmatically to gain and or maintain the countries' economic edge in a globally competitive world. For example, the Organization of American States (OAS) undertook a comprehensive analysis of training needs in the tourism sector of 25 Caribbean Tourism Organization (CTO) member states and found that tourism operators in this globally competitive industry experienced moderate to extreme difficulty in filling managerial and professional posts. The general training needs were in the areas of customer relations, marketing and communications, computer literacy, culinary arts and tour guiding. As in previous studies, respondents

identified the main human resource challenges as quality of staff, staff motivation, work ethic and attitude.

A recent World Bank study on the OECS indicates that skill shortages have been a key constraint on enhancing competitiveness.[4] With the need to develop sunrise industries in the services sector, the OECS countries have been seeking to expand their educational and training systems to meet the new human resource needs. However, studies on Grenada, St Vincent and the Grenadines and Saint Lucia point to critical shortages of skilled labour in both technical and managerial occupations.

Training agencies in the region have recognized the nature of the human resource challenges facing enterprises in the region and have sought to incorporate new modules in their training programs. For example, HEART/NTA in Jamaica have paid significant attention to computer literacy and the 'soft' or human relations skills by requiring all participants to follow courses in these areas.

2. Work Permits Issued by Sex, Country of Origin and Occupation

Work permits granted to nationals and non-nationals of CARICOM Member States can provide corroborative evidence for expectations of skills shortages as countries tend to grant work permits for areas where skills cannot be found locally. Work permits, however provide limited information. Most importantly, they tend to understate the level of migration of skills since there are instances when countries waive the work permit requirement for some categories of workers. Also they do not account for illegal workers. Under the provisions of the revised Treaty of Chaguaramas, free mobility of labour is a key element in the realization of the CSME. Various categories of highly skilled nationals of CARICOM Member States are expected to have Certificates of Recognition of Skills to facilitate their acceptance into other CARICOM Member States. The use of Certificates of Recognition is not yet wide-spread as some countries are gradually putting systems in place to effect the arrangement. Nevertheless, some information on the movement of skills can be gleaned from data on work permits and Certificates of Recognition of Skills.

It is interesting to note that a significant proportion of non-national skills was met from extra- regional sources. Work permits were issued to workers from the European Union, the United Kingdom, The United States of America and Canada. Consultants and contractors from abroad when working on construction and other projects easily acquire work permits for their regular staff.

In 2003, between July and September, 676 work permits were issued by the Barbados authorities. Of those the greatest number (270) or approximately 40% went to the construction industry and, in particular, 128 (47.4%) of these permits went to carpenters, while 78 (28.9%) went to masons and plasterers. Installers and steel benders each received 12 permits (4.4%). All together 230 work permits (85.2%) went to these categories of construction workers. The construction industry in Barbados

expanded as a result of both public and private investment and so did the demand for construction workers. Buoyancy in this industry is expected to be maintained as both the public and private sectors are preparing for the Cricket World Cup in 2007.

The Statistical Unit of the Ministry of Labour in Guyana reported a total of 3,800 work permits issued for the year 2003 and 3157 for 2004. In 2004, the highest number (1408 or 44.6%) was issued to Brazilians, who are very active in the mining sector. The second highest amount, 360 or 11.4%, went to workers in the government sector, while construction sector workers received 298 or 9.4%. The Service Sector was next with 267 or 8.5%. It should be noted that most of the recipients of work permits were males. The nature of the majority of jobs available might have been responsible for this pattern.

An analysis of the work permits issued shows that a large proportion went to occupations in the highly skilled occupational categories, namely, (i) Legislators, Senior Officials and Managers; (ii) Professionals and (iii) Technicians and Associate Professionals. This confirms the widespread availability of jobs requiring highly educated and trained personnel and the shortage of jobs which required little or no education and training, especially in the elementary education needs category. In the tourism based economies, a high proportion of permits was issued to occupations such as cooks, waitresses, bartenders, chefs and related workers, maids, housekeepers and related workers. Among the professions were included medical doctors, dentists, pharmacists, nurses, teachers, architects, engineers, accountants, lawyers and consultants.

The “new” occupations associated with computer technology were also represented. These included computer programmers, computer operators and computer technicians. The major categories of occupations for which permits were issued coincided with occupational requirements of the future which decision makers ought to note if the region is to cope with the challenges of globalization, economic liberalization, and rapid structural and technological changes which characterize the world today. While the movement of labour across national borders is not as easy as the movement of other resources, it is improving and will continue, driven by the need of countries to achieve and maintain competitiveness. Labour mobility across the CARICOM region will depend on the organization of production across Member States, the real wage/salary differentials, the degree of search and relocation costs, the availability of contingent rights to family members and other conditions in the receiving country. In effect, categories of labour may be ‘free’ to be mobile in theory but, at the practical/operational level, social and economic factors can constrain the extent of labour mobility.

3. The CSME Approach to Labour Mobility

The Caribbean integration project which commenced in 1968 with the Caribbean Free Trade Area (CARIFTA) has now matured into the CARICOM Single Market and Economy (CSME), with the signing of the Declaration of Entry into a CARICOM Single Market (CSM) by six member states (Barbados, Belize, Guyana, Jamaica, Suriname and Trinidad and Tobago) on January 30, 2006. *Inter alia*, it represents, during the first phase, free movement of the following categories of persons seeking employment:

- University Graduates
- Media Workers
- Sports Persons
- Artistes and
- Musicians

The movement of specific categories of labour is dealt with in Article 46.1 of the Revised Treaty of Chaguaramas. Ultimately, these categories are to be extended to the entire labour force. Clause 4 of Article 46 envisages the enlargement of the group of persons, enjoying the right to freely and actively seek employment in the CSME. A regional task force established to examine the issue of labour mobility within the CSME has proposed arrangements which will result in the complete movement of all CARICOM nationals by the end of 2008. In addition, the Heads of Government decided in February 2006 that Member States should also consider the granting of free movement status to the following categories of workers from July 2006: artisans, domestics, workers in the hospitality industry, nurses and teachers who are not graduates and members of the clergy.

The movement of such persons is associated with the CSME operating at the most efficient level of production, a pre-requisite for sustaining development in this era of globalization and trade liberalization. The CSME is envisaged to make the sum of regional resources; human, natural and manmade, available for production and consumption to optimize social welfare of the broad masses of the people in the Region.

In the past it was mandatory that all categories of workers obtain a work permit before working in another Member State. With the CSME however, the categories of workers named above can legally go job hunting in any Member State of the CSME and work without first securing a work permit. The ultimate goal is the full unity of the labour markets of the individual states of the CSME, so that they operate seamlessly as a single labour market without the need for work permits. Migrant workers are treated on the same level as nationals of the Member State. This is expected to reduce the cost of production, making tradeables and non-tradeables more competitive, by reducing unit labour cost and the rate of wage inflation.

The free movement of labour within the region is expected to result in some degree of ‘wage/salary convergence’ in the long run. Arrangements are in place for the harmonization of social security systems (that is, the CARICOM Agreement on Social

Security, 1997) which protects all entitlements to long term benefits. In addition, the intra-regional Double Taxation Agreement (1973) protects self-employed persons from paying taxes twice on the same earnings. There are however adjustment costs (for example, housing, education for children, remittances) associated with labour mobility which can slow down the process within the Region.

Important mechanisms for facilitating the free movement of skills are missing in the CSME. For example, non-existent at the moment is a Regional Labour Market Information System (RLMIS), which could inform prospective job seekers of job availability and, assure employers of the quantity and quality of the skills available in the CSME. Most Member States have not yet established adequate mechanisms for determining equivalency of degrees, diplomas and certificates and for accrediting the certificates, diplomas and degrees of national, regional and non-regional educational and training institutions.

To facilitate free movement, however, the States have agreed to accept university graduates who are citizens of any Member State. Designated Ministers are tasked with the duty of providing job seekers with Certificates of Recognition of Skills. At present nine Member States have issued certificates of Recognition of Skills on a relatively small scale. Trinidad and Tobago, Jamaica and Guyana have issued the bulk of these certificates. It is hoped that this arrangement will improve the flow of skills in the region.

There is still the outstanding issue of 'contingent rights' relating to the rights of family members (spouse, children) of the person holding the Certificate of Recognition of Skills (CRS) to work, be educated and receive benefits in another member state. At present, these matters are handled administratively but it has been recognized that important skills can be 'locked out' if these rights are not addressed. Related to 'Contingent rights' is the issue of 'social rights, which relates to health care, education, social security and welfare and other social amenities within the CSME.

The Revised Treaty also makes provision for the "rights of establishment" whereby non-wage earners, either as service providers and/or entrepreneurs, can move freely within the region to provide services or to establish businesses. This would apply to managerial, supervisory and technical staff and their family members.

C. Closing the Skills Gap

The skills gaps identified in the previous section put the economies of the CARICOM Member States at a great disadvantage in a liberalized trading world. These economies need a highly skilled labour force to acquire or maintain a competitive edge. They therefore have the primary task and are obligated to develop their human resources to the level of productivity that puts them on par with the most proficient and skilled in the global workplace. This section examines the role played by both the private and public sectors in the development of a skilled labour force for the Region.

There are several options available for closing the skills gaps and removing the skills deficits, with the option chosen depending on the urgency of the problem and relative costs. Whatever the option chosen, the cooperation and collaboration of the major stakeholders would be required. The employees and their organizations, the employers and the Government will have to play their part in ensuring that the workforce is adequately trained.

Many firms expect to do minimal employee training, restricted in many cases to the orientation of new staff, occupational safety and health and minimal technical skills training. The majority of firms, being small to medium size cannot afford the high cost of institutional training and therefore rely on on-the-job training. Training beyond orientation is most often done by the larger firms such as GUYSUCO in Guyana which conducts several training and staff development support activities in all areas of the firm's operations. It conducts its apprenticeship training programme at the Guysuco Training Centre at Port Mourant. This exercise has had a success rate of 99%. Apprentices receive specialist training in fitting and machining, agricultural mechanics/ auto electronics, instrument studies and electrical installation. This programme apart, the company sends cadets to local and foreign universities for training in areas with special emphasis on sugar technology. Recent cadets pursued studies in chemical and mechanical engineering and agricultural sciences. Training was also conducted in-house to enhance skills in the areas of budgeting, computer literacy for managers, managerial leadership, and internationally by other training agencies.

The Trinidad and Tobago NTA study referred to earlier found that 610 establishments planned to conduct training exercises as a way of responding to skill shortages which might affect their organizations. Such training was ongoing in some enterprises, while others planned to conduct training programmes as the need arose. Skills training courses in Trinidad and Tobago are a collaborative effort between the public and private sectors.

In Barbados, a small scale survey of training and development needs in 2001 showed that while 74 percent of the respondents had a training budget, only 5 percent of the overall budget was devoted to training. There was generally heavy use of on-the-job

training rather than institutional training to satisfy training needs. In the case of Jamaica, the Jamaica Employers' Federation (JEF) found that while 44 percent of the responding companies had a training budget in 2000, many of these enterprises were unable to indicate the percentage of the overall budget devoted to training activities. As in Barbados, most of the enterprise training took place on the job.

A regional study on employment training highlighted the following features:

- a high percentage of firms in the region provide training for employees but the percentage is lower than the average for the Latin American and Caribbean region;
- several public and private training institutions exist in the region with public training institutions focusing on the training of the youth;
- more highly skilled workers in enterprises (large) tend to receive the highest proportion of training;
- there is an excess social demand for training;
- there is little information in the impact of training on performance and productivity;
- training levies are commonly used to finance national training programs;
- smaller firms are less likely to benefit from levy resources

Regional governments are now seeking to streamline the certification of their training programmes. For example, Barbados is currently piloting the implementation of occupational standards and national vocational qualification (NVQ) programs, while HEART Trust /NTA in Jamaica has an ambitious program to train and certify the entire workforce.

1. Education and Training Institutions and Training Programmes

The education system of the CSME Member States, most of which are patterned off the British system, is organized into four different levels. These cover pre-school (to age 5), primary (ages 5-11) secondary (ages 12-18) and tertiary (16 years and over). The responsibility for pre-school education is shared between the government, private sector, churches and other non-governmental organizations. Primary and secondary education is provided by both public and private institutions. Transfer from primary to secondary is based upon a Common Entrance or National Selection Examination, administered nationally and school options are based on examination scores.

Secondary school (new, junior, senior, high, technical/vocational education and training (TVET)) programmes vary from three to five years duration. There are some skill-based vocational competencies, four-year programmes offering both academic and pre-vocational subjects and five-year programmes leading to CXC and GCE Ordinary Level Certification. Advanced Level Certification (in both CXC and GCE) is also available at senior secondary schools. In Belize, for example, sixth form institutions have also offered Associate of Arts degrees which are sanctioned by the United States Association of Junior Colleges. Tertiary education is provided by community colleges,

agricultural colleges, teachers colleges, management institutes, polytechnics, and regional universities.

The Region continues to have a number of free standing “sectoral” training institutions such as nursing, agriculture, and police training institutions of which a number are internationally recognized as high quality. In some cases, these institutions have been incorporated into a community college system.

A number of other institutions offer a variety of skill training opportunities to secondary school graduates, school leavers or dropouts. They are not normally considered as tertiary institutions even though many of their students may have completed secondary education but with less than three CXC passes. They are often associated with a Ministry of Youth, Education or Labour or with a free standing training agency.

All CSME countries provide some form of pre-primary education (also referred to as kindergarten or pre-school) with overall regional coverage estimated at approximately 80 percent among 4- and 5- year olds. However, pre-primary provision is uneven across the region. Some countries have well developed pre-primary education systems with gross enrollment ratios above 100 percent (Guyana, St Kitts and Nevis), while in other countries, for example Belize, less than a third of the children are enrolled in pre-primary programmes.

Remarkable progress has been made with respect to provision of primary education. For many countries in the region universal provision and access (for both boys and girls) is a reality. Indeed, all the Caribbean countries should achieve the millennium development goal (MDGs) of universal primary level education by the year 2015. Even though most CSME countries provide universal access to primary education, this does not necessarily imply equity among all children. This is because resources used in one school (textbooks, classrooms, libraries, electricity etc.) may differ substantially from those used in another.

In addition, gaps in primary school enrollment continue in several countries, including the Bahamas, Dominica and Guyana. There is a pattern of late entry, poor performance and early exit among the poor throughout the Region. As a result, despite significant investment in education, poor children in the Region generally may not acquire the knowledge and skills required for the world of work.

Equally worrying is the low achievement levels even among those who complete primary school. Many students in the region pass through the primary system without attaining the required skills for either secondary education or employment. This is attested to by the poor performance on the standardized examinations administered by each country. Over 60 percent of children in Saint Lucia, Grenada, Dominica and Belize fail the final year of both mathematics and language arts examinations (Table XII.9). Trinidad and Tobago and St. Vincent and the Grenadines are the only countries where more than 60 percent of students pass both examinations. This data masks the even poorer performance among boys. In some countries where gender disaggregated

data are available, (Jamaica, St Kitts and Nevis and St Vincent and the Grenadines), girls outperform boys by an average of 8 percent points in Mathematics and 17 percent points in Language Arts.

Table XII.9: Exam Passes at the Primary Level in the Caribbean

Country	English Language %	Mathematics %
Belize	24	35
Dominica	25	38
Grenada	22	25
Guyana	36	44
Jamaica	58	48
St. Kitts and Nevis	62	38
Saint Lucia	38	25
St. Vincent and The Grenadines	76	75
Trinidad and Tobago	64	68

Source: World Bank, Ed Stats, 2004

Access to secondary education is unevenly distributed throughout the region. Gross enrollment ratios range from as low as 54 percent in Belize to 100 percent in St Kitts and Nevis (Table XII.10). Most students especially boys do not complete secondary school. Secondary school completion rates range from 34 percent in Guyana and 37 percent in Belize to 72 percent in Saint Lucia. Further evidence suggests that within countries access to secondary education is strongly linked to income. In the Bahamas, for example, 11 percent of the poor compared to 50 percent of non poor remain in school past age of 16. In Jamaica one-third of children from the poorest quintile are out of school by the time they are 16. In contrast 95 percent of children from the wealthiest quintile are still in school at this age.

Table: XII.10: Gross Enrolment and Completion Rates for Secondary Education

(%)

Country	Gross Enrollment Rate	Gross Completion Rate
Belize	54	37
Dominica	90	58
Grenada	80	80
Guyana	75	34
Jamaica	85	70
St. Kitts and Nevis	100	68
Saint Lucia	80	72
St. Vincent and The Grenadines	68	50
Trinidad and Tobago	70	60

Source: World Bank, Ed Stats, 2004.

Another indicator of educational quality is the pass rate on CXC examinations. There tends to be a low pass rate in the Region in the number of CXC entrants gaining 5+ passes in CSME countries and the percentage of those passing Mathematics and English. Pass rates for five (5) or more passes in 1990 were low in all countries and especially low in Guyana and Belize where only 2.9% and 3.3% of CXC entrants gained 5+ passes respectively. Pass rates were highest in Saint Lucia (11.8%) and Trinidad and Tobago (9.2%). Of the students who complete the secondary cycle in CSME countries, only approximately 30% qualify to receive certification which would enable them to gain admission to a tertiary level institution.

As a result of poor quality education and early school leaving, illiteracy among the youth remains a problem. In Belize, for example, approximately 15 percent of the youth do not have basic literacy skills. On the other hand, Barbados, and Trinidad and Tobago have both achieved nearly universal literacy among the youth cohort, although the level of non-certification in the population is high (57% of the adult population in 2000 in Barbados had no certification). Jamaica has achieved nearly universal literacy among young girls but almost 1 in 10 boys aged 18-24 years is illiterate. These weaknesses are played out in the labour market in terms of low paying jobs and a poor attitude to work.

2. Technical and Vocational Education and Training (TVET) Colleges

Courses taught in TVET programme prepare students for the world of work. HEART in Jamaica reaches 31,000 youths per year, and the Barbados Vocational Training Board enrolls 1,500. During 2003-2004, 1410 students were enrolled for Craft Certificate courses, 393 for Technical Certificate courses and 272 for Diplomas at the Government Technical Institute in Guyana, where enrollment accounts for 60 percent of the combined institutes and programmes.

The current vocational and technical education system is deficient in a number of respects. Some shortcomings of training programmes are:

- **Technical and vocational education** *is limited and is viewed as an option for only those students who are not bright enough to go to the university*: This view is deeply rooted in the society, even among policy makers and is therefore difficult to change. Consequently, for those who are enrolled in technical schools, motivation is low and the drop out rate is high.

- **Unavailability of adequate training programmes:** Despite the heavy demand for vocational and technical education programmes, there is a lack of an adequate number of programmes available to meet the current needs.

- **Deficiencies in quality of training**: The technical and vocational education system in CSME countries suffers from serious deficiencies in training equipment, facilities and instructional materials. As a result, the quality of the students from these programmes has been poor. The deficiency in current training programmes is reflected in the high job vacancy rates for certain occupations in CSME countries.

- **Lack of adequate high level training:** A majority of training programmes in the Region are designed towards entry level jobs. There is a lack of high level training despite demand for workers with technical and professional skills.

- **Poor linkage between training and skills needs:** One of the major problems with the current vocational education and training system is the poor linkage of these programmes with employers. Employers have not been adequately brought into the training process to determine what their needs are, and how vocational education and training programmes can be organized to meet those needs. For instance, attitudinal change is not adequately incorporated into programmes although employers have noted that a major obstacle they face is the problem of finding motivated workers with the right work ethic.

- **Lack of information on skills needs in the labor market:** Currently, there is no adequate information available on the skills needs in the labor market. Therefore, training is provided in a “vacuum” and is not geared towards meeting skills deficiencies in the labor market.

- **Lack of applicability of training provided:** Current training programmes are excessively theoretical or academic in their approach. Also, there are insufficient opportunities for obtaining real world experience in the course of training. In effect, there is a' knowing-doing gap' which has to be filled by on -the-job training.

- **Lack of coordination among training programmes:** Currently, training programmes are administered by a variety of different agencies (e.g., Ministries of Labour, Education, Youth) and there is little coordination among the agencies in the provision of training. As a result, training is uncoordinated and provided as a patchwork of overlapping jurisdiction. This results in wasted resources and limited effectiveness.

- **Lack of adequately trained teachers:** One of the problems with the current vocational and training system is the lack of trained teachers. Currently, most vocational and technical education teachers lack practical, on the job experience themselves. Furthermore, they are not trained in the provision of technical and vocational education. Also, in most countries vocational and technical school teachers receive salaries that are lower than those paid to primary and secondary school teachers. As a result, the low quality of teachers results in the provision of low quality education.

- **Insufficient programmes targeted towards training for specific groups:** Currently there are insufficient programmes targeted at specific groups such as women, at-risk-youth, and young people with disabilities.

- **Inadequate monitoring and evaluation of training programmes:** Currently, there is no regular mechanism to monitor and evaluate the impact of the vocational education and training programmes that are being offered. As a result, there is no objective way of assessing which of the training programmes being offered are effective and which are not. The real impact of these programmes can only be properly assessed through a tracer study of their graduates.

3. Tertiary Education

(a) National Universities in Our Region

The main provider of university education in the CARICOM region is the University of the West Indies (UWI). Programmes offered lead to certificates, diplomas, undergraduate degrees and post-graduate degrees up to Ph.D. The areas of discipline are: agriculture, arts and general studies, education, engineering, law, medicine, natural sciences and social sciences.

The total enrollment at UWI in 1998 was 21,444 while in 2005 it was 33,000 students, with the bulk from the campus territories, Jamaica, Trinidad and Tobago and Barbados. In addition to producing graduates and conducting numerous research projects, UWI sees itself as the intellectual center of the Commonwealth Caribbean region, giving support to other tertiary level institutions and broadening its own vision through communication with other universities abroad.

Also forming part of the University are the Center of Hotel and Tourism Management in the Bahamas, and University Centers/Schools of continuing studies in the non-campus countries which ensure that a wide section of the population has access to a variety of educational resources and services through an innovative distance education facility. There are also several institutions affiliated to the UWI in the areas of meteorology and hydrology, business management theology and counseling.

Since the establishment of the distance arm of the University of the West Indies in 1977, it has blossomed. Other universities have also been developing their distance teaching capacities. In collaboration with the UWI, Anton de Kom University of Suriname, the University of Guyana, and the University of Technology in Jamaica are now involved in a project aimed at upgrading facilities and human resource capacities for the development of web-based teaching.

Other tertiary institutions of note in Jamaica are: the University of Technology (U Tech) in Jamaica, which was formerly known as The College of Arts, Science and Technology (CAST). Unlike the other traditional universities, the programmes at U Tech have been modeled on the old English polytechnic system, which was geared towards technical and professional training directly linked to the needs of the world of work. A number of students from other Caribbean countries have been trained here over the last four decades. The Northern Caribbean University, formerly known as West Indies College, has also hosted numerous students from the rest of the Caribbean. The Caribbean Graduate School of Theology, the Jamaica Theological Seminary, and the St Michael's Seminary are all based in Kingston with programmes mainly in theology.

Other tertiary level institutions are: John Donaldson Technical Institute, the Caribbean Union College, San Fernando Technical Institute, the National Institute of Higher Education Research and Technology, the West Indies School of Theology in Trinidad and Tobago and Sojourner Douglas College, and Benedictine University College in the Bahamas. The Trinidadian government recently established the University of Trinidad and Tobago (UoTT) to cater to the high level technical needs (energy, engineering etc) of the country and the wider Caribbean

Barbados is considered to have one of the best-developed educational systems in the entire region. It is home to one of the main campuses of the University of the West Indies. The country also hosts the Codrington Theological College, the Samuel Jackman Prescod Polytechnic, the Barbados Community College, Erdiston Teachers'

College and the Barbados Institute of Management and Productivity (BIMAP). It is also planning to establish a University College of Barbados.

The University College of Belize offers degree programmes in the arts and sciences with articulation agreements with several U.S. based colleges and universities.

In Grenada, the St. George's University, a U.S. offshore medical school, also offers programmes in the arts and sciences.

The University of Guyana offers courses leading to a first degree in the faculties of agriculture, arts, natural science, social sciences, health sciences, education and technology. Post graduate diplomas are offered in the fields of public administration, education, social work, medical technology, accountancy, pharmacy, public management and public communication. Programmes leading to a Master's Degree are offered in Guyanese history, political science, chemistry, geography, agriculture and education.

The Council of Legal Education was established in the Commonwealth Caribbean as a regulating body for legal education. Three institutions have been established to train students who already hold the Bachelor of Law Degree and wish to train for the practice of law. These institutions are: The Eugene Dupuch Law School in the Bahamas, The Hugh Wooding Law School in Trinidad, and The Norman Manley Law School in Jamaica. Some national universities also have law faculties which offer initial training programmes for law students. These include the University of Guyana's, Faculty of law, and the Anton de Kom University, Department of Law, in Suriname. The Faculty of Law at the Cave Hill Campus of the UWI provides the undergraduate and graduate degree programmes.

The University of West Indies (UWI) as well as the University of Guyana (UG) offer diploma level and other courses below the BA, often through their 'continuing studies" department but sometimes as part of their regular academic programmes. Both the UWI and UG continuing studies programmes lack outreach and connections to the private sector.

Tertiary institutions in CARICOM have come together to form the Association of Caribbean Tertiary Institutions (ACTI). ACTI works to coordinate tertiary education standards, for example, developing procedures for assessing the equivalency of qualifications, for determining the quality of programmes and for providing for accreditation as a basis by which qualifications issued by any institution can be recognized by others and by employers throughout the Region.

- **Community Colleges**

Tertiary education is also provided through a number of Community Colleges. These are based on the North American model and offer a wide range of certificates and associate degrees. Jamaica has a large number of Community Colleges that cover a variety of programmes: Brown's Town, Knox, Excelsior, Montego Bay, and Portmore Community Colleges. These colleges which enroll over 8,000 students, offer programmes at the certificate and associate degree levels in business, nursing, IT, hospitality, technology, teacher education and agriculture. The community colleges in Jamaica articulate well with each other and with BA granting institutions but suffer from inadequate physical facilities and equipment, not enough vocational courses and inadequate linkage with industry. The Barbados Community College (BCC) offers training on three campuses to over 4,000 students in agriculture, commerce, health, hotel management, and technology, and also offers some BA degrees. In the Bahamas, the only institution formally designed as a community college is the private Bahamas Baptist Community College which serves 100 full time and 700 part time students, offering associate degrees in 23 disciplines.

Other community colleges are the Sir Arthur Lewis Community College in St Lucia, the Antigua State College, the Clifton Dupigny Community College in Dominica, the College of Further Education in St Kitts and Nevis, the St. Vincent Technical College, the T A Marryshow Community College in Grenada and the College of the Bahamas. These colleges offer a range of certificate, diploma and associate degree programmes for entry and middle level jobs in the labour market. In Trinidad and Tobago, the College of Science, Technology and Applied Arts (COSTAATT) forms the umbrella organization for a range of institutions offering academic and training programmes which are directly related to the world of work..

- **Teacher's Training Colleges**

A number of teachers' training colleges have been established to provide in-service training for teachers already in service, and pre-service training for individuals intending to make teaching a career. There are several programmes within each category, each with duration of two to three years. Some of the teachers' training institutions are:

The Erdiston Teachers' College in Barbados; the Cyril Potter College of Education in Guyana; and the Bethlehem, Church, Mico, Moneague, Parsley Gardens, Sam Sharpe and Shortwood Teachers' Colleges in Jamaica. In St Vincent and the Grenadines there is St Vincent Teachers' College while in the Bahamas there is the Success Training College.

4. The Way Forward

(a) Enhancing System Capacity

- **Access and Coverage***:* At the pre-primary, primary and secondary levels, countries need to reach those students primarily from poor communities who do not have access to education. Provision for students with disabilities is particularly inadequate beyond primary level. Tertiary level education is embryonic in most countries with enrollment, although increasing, still low, with a regional average of 9%.

- **Increasing Enrollment:** The 15% post-secondary enrollment ratio target set by CARICOM countries several years ago is already out of date, especially since Barbados is already enrolling 38%, Bahamas 25% and Jamaica 16%. Given the changing labor force demands a target could be set as high as 30-40% by 2015 depending on the country and the definition of post-secondary. For most of these countries, except Barbados enrollment should double over the next 10 years. Probably 60% of all post-secondary education enrollments should be below the BA granting level. The target clientele should be not only youths but also all adult workers, extending even to those who would normally be at retirement age. There is also a need to promote lifelong learning and training in the region as more older persons are remaining in the labour market.

- **Designing Sustainable and Cost Effective Financing of All Levels of Education:**
  Trinidad and Tobago spends US$12,239 (PPP) per student on post-secondary education, compared to $9,178 by Barbados, $6,039 by Jamaica, and $840 by Guyana. It is interesting that Trinidad and Tobago spends only $846 per student on primary education and $965 per student on secondary education which is lower than that of Jamaica a much poorer country, and less than 20% of what Barbados spends at these levels. Optimally, public expenditures on education should approach a 16% of GDP figures.

- **Effectiveness**: Increased access to secondary education and improved assessment have served to highlight the ineffectiveness of primary education as students enter secondary schools ill-prepared to undertake studies at that level. Consequently, examination results in CSME countries point to deficiencies in the performance in core subjects, such as English, Mathematics and Science.

  There is increasing demand for post secondary education, particularly in the areas of science, technology and management. This is critical if the region is to steer its development towards being equipped to address the challenges ahead.

- **Literacy:** Across the Region, literacy rates are relatively high (on average 85%).However the attainment is insufficient to compete in the global market

place. Secondary school completion is considered a minimum requirement for development of a modern economy. Current participation rates at upper secondary level (grades 9-12) range from 50-100%.

- **Combating the Brain Drain:** An important demographic factor with implications for the economy and education specifically the financing of education, is emigration. A recent World Bank report, Access, Quality and Efficiency in Caribbean Education: A Regional Study, commented on the high level of emigration of professional, technical and skilled workers out of the Region. The report noted that "many countries are not reaping the full benefits of their social investment in education." These persons are not available to contribute directly to the growth of the society and economy, although remittances by the overseas population are reportedly quite high for some countries.

(b) Linking Education and Training With the Job Market

Emphasis is required for training that increases the worker's flexibility, rather than education that merely enhances skills in literacy, numeracy and vocational training in areas such as "sewing, handicraft and culinary arts which do not meet the emerging manpower needs". Ways must be found for making education and training relevant to the employers' needs, especially at the technical, vocational and university levels. Liberal Arts education, as important as it is, should not be overdone at the expense of mathematics, computer science, and the physical sciences. The most intractable skills shortages are in the managerial, professional and technical fields.

The closing of the skills gaps require the cooperation and collaboration of all stakeholders, especially the firms, the schools and Governments. The schools and firms must together plan, design and implement programmes, with the firms supporting schools in creative ways, including their workers spending time in schools and opening their facilities to students and the students and instructors , in turn, spending some time in industry. Government can be a facilitator in the arrangement in addition to its traditional role of providing the legal setting and equipping the schools adequately by providing appropriate buildings, equipment, materials and experienced training staff/instructors.

(c) Developing Labour Market Information System and Career Information Centres

Labour market information is key to the efficiency of the labour market and should be disseminated widely to all stakeholders, including workers and potential workers, or households, employers in the public and private sectors, decision makers in education and training institutions and public policy makers. The Labour Market Information System (LMIS) should provide the stakeholders with information about the present and future availability of jobs, wages and other conditions of employment. Building a

LMIS requires the active participation and collaboration of public, private and trade unions sector. None of the CARICOM Member States can boast of a comprehensive LMIS, although a few countries are attempting to establish one. Apart from Jamaica, Trinidad and Tobago, Barbados, Belize, and to some extent, Guyana, much work has not been done in this regard. The development of a labour force to meet the challenges of globalization and liberalization and structural adjustment requires an efficient LMIS which will guide households and firms in making choices in human capital investments, educational and training planners and decision makers, career counselors, investors and other stakeholders. The ILO office in the Caribbean has been at the forefront of the development of a Caribbean Labour Market Information System.

New entrants to the labour force, those who quit, are fired, laid-off or simply want a new job depend on LMI. There are several ways of finding a new job. The formal traditional approach is through the labour exchange department of the Ministry of labour or Department of Labour. The employment service offered by these exchanges is typically limited and will not meet the demands of the market.

Many of the CSME Member States maintain an employment services centre within the Ministry of Labour. The services are however poorly resourced and do not meet the requirements of a modern employment service. Job seekers – new entrants to the labour force, re-entrants, those who quit, are fired, laid-off or simply desire a change of jobs, investors in physical and human capital, as well as others depend on labour market information to make the right choices. The information should be available in career information centres that counsel job seekers, pre-screen then to determine suitable employment and refer them to employers and to training programmes Users of the centres should be able to access information on firms throughout the region, job listings, or job banks, wages and other conditions of employment, by conducting computerized searches. Barbados comes closet to such a centre requiring that workers on unemployment insurance and other job seekers register with the centre and by offering training in job search methods, counseling and interview taking. The free movement of labour would be facilitated and enhanced by a network of such career information centres where users can go to access labour market information to make viable career choices and enhance their job search capacity.

A functional labour market information system and a career information network cannot be established in the absence of labour force and labour market information. There is need for each country to strengthen its statistical bureau and conduct surveys of the labour force and labour market on at least a biannual basis if not quarterly, so that plans and decisions can be made on the foundation of up to date and timely reliable statistics.

End Notes

[1]A. Downes, (2006)
[2] P. Mishra, 2006
[3] M. Chottepanda (2004)
[4] World Bank, (2004)