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## Labour Markets and Human Resource Development in the Caribbean

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### 1. INTRODUCTION

Recent studies of the economic growth and development process have emphasised the critical role of human capital in achieving high rates of output growth, reducing unemployment and poverty and enhancing social development (see World Bank, 2005). For small developing countries like those in the Caribbean, the existence of limited natural resources means that emphasis must be placed on human resources development (HRD) in national development strategy formulation. Human resources development refers to the enhancement of the skills, knowledge and competencies of the population so that the workforce can contribute meaningfully to the national development process. Through education and training (and health and nutrition), HRD can overcome imbalances in the labour market. Employers would be able to obtain the quality and quantity of labour resources they need, while individuals would be able to supply better quality labour resources, achieve higher levels of productivity and receive higher incomes. HRD initiatives must therefore be related to the dynamics of the labour market.

The main objective of this chapter is to examine the labour market conditions and HRD initiatives that have been implemented over the past two decades in the Caribbean, with a view to identifying the general and specific constraints which have been placed on the growth and development process. Given their small size, Caribbean countries have had to adopt an outward-oriented development strategy incorporating export promotion, economic integration and foreign direct investment. Such a strategy requires certain types of human resources (labour demand side), which must be supplied through the education and training system (labour supply side). In many instances, education and training policies have not been designed to meet the demands of the labour market, hence there has been the charge of a

mismatch or a dysfunctional education and training system. In addition, the region has been confronted by the emigration of skilled labour (the brain drain), which has further constrained the growth and development process in the region.

This chapter first examines the nature of the labour market in the Caribbean by analysing changes in the labour force, employment, unemployment and wages/salaries over the past two decades. The second section of the paper examines the education and training initiatives undertaken in various countries in order to enhance the supply of labour. The critical issue of the emigration of skilled labour is also discussed. The chapter concludes with a discussion of the appropriate policies needed to strengthen the linkage between the operations of the labour market and HRD initiatives in the Caribbean region.

## 2. LABOUR MARKET DYNAMICS IN THE CARIBBEAN

### 2.1 Labour Force

Using the available survey and census data, some basic features of the Caribbean labour market are highlighted. On the supply side of the labour market, the Caribbean countries have experienced relatively low rates of population and labour force growth over the period 1999–2004 (see Table 1). Similar growth rates were also recorded for the decade 1990 to 2000. With the exception of Belize and St Kitts and Nevis, the population growth rates averaged less than 1 per cent per year. The lower rates of population growth and

**Table 1:** Population and Labour Force Growth Rates in the Caribbean, 1999–2004 Annual Average

<i>Countries</i>	<i>%</i>	
	<i>Population Growth</i>	<i>Labour Force Growth</i>
Antigua and Barbuda	1.2	n.a.
Bahamas	1.4	1.8
Barbados	0.3	0.9
Belize	3.0	4.6
Dominica	0.1	n.a.
Grenada	0.9	n.a.
Guyana	0.2	1.1
Jamaica	0.5	0.0
St Kitts and Nevis	2.1	n.a.
St Lucia	1.2	2.5
St Vincent and The Grenadines	0.5	2.2
Trinidad and Tobago	0.3	1.4

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

*Note:* n.a. – not available

subsequent lower labour force growth were due primarily to the implementation of family planning programmes in several countries during the 1950s and 1960s. The fertility rate (births per woman) varied between 1.6 (Trinidad and Tobago) and 3.4 (Belize) during the period 2000–05. An analysis of the distribution of the population by age-specific groups provides some evidence of the ageing of the population over the past four decades. There has been a general decline in the youth population, that is, those persons under 25 years of age and a general rise in the older cohorts, especially those over 65 years of age. The conjunction of these two features has resulted in a fall in the dependency ratio, that is, the ratio of those under 15 years of age plus those over 65 years of age to those persons aged 15 to 64 years of age in nearly all of the countries over the 1990 to 2000 period (see Table 2).

An analysis of the participation of males and females in the labour market indicates that there has been a significant increase in the female participation rate (that is, the percentage of adult females who are part of the labour force) and a relative constancy and, in some cases, a decline in the male participation rate in several countries. For example, in Barbados, the female labour force participation rate rose from 60 per cent in 1993 to 64 per cent in 2003, while the male rate was 74.1 per cent in 1993 and 75 per cent in 2003. In the case of Trinidad and Tobago, the female rate rose from 44 per cent in 1993 to 49 per cent in 2003, while the male rate was 75 per cent for 1993 and 74 for 1999. Jamaica recorded a decline in both rates over the 1993 to 2003 period: the male rate declined from 75 per cent to 74 per cent while the female rate fell from 62 to 56 per cent. Belize recorded relatively low, but increasing, female

**Table 2:** Dependency Ratios for Caribbean Countries, 1990–2000

<i>Countries</i>	<i>1990</i>			<i>2000</i>		
	<i>Male</i>	<i>Female</i>	<i>Overall</i>	<i>Male</i>	<i>Female</i>	<i>Overall</i>
Antigua	0.64	0.62	0.63	n.a.	n.a.	n.a.
Bahamas	0.59	0.58	0.58	n.a.	n.a.	n.a.
Barbados	0.55	0.57	0.56	0.48	0.51	0.50
Belize	0.92	0.93	0.93	0.83	0.82	0.82
Dominica	0.76	0.83	0.80	0.73*	0.78*	0.75*
Grenada	0.85	0.88	0.87	n.a.	n.a.	n.a.
Guyana	0.64	0.64	0.64	0.53*	0.52*	0.52*
Jamaica	0.78	0.78	0.78	0.61*	0.64*	0.62*
St Kitts and Nevis	0.68	0.84	0.75	0.64*	0.64*	0.64*
St Lucia	0.73	0.72	0.72	0.65*	0.64*	0.65*
St Vincent and The Grenadines	0.76	0.79	0.78	0.76*	0.79*	0.78*
Trinidad and Tobago	0.66	0.66	0.66	0.48*	0.50*	0.49*

*Sources:* CDB: Selected Indicators of Development 1960–98 and Annual Report 2005

*Notes:* n.a. – not available; \* indicates 1998 data.

participation rates (less than 40 per cent) and relatively high but constant, male participation rates during the 1990s. Female participation rates in St Lucia were relatively high and decreasing during the 1990s, while the male rates also declined slightly. Overall participation rates for Guyana, Jamaica and St Lucia declined over the 1993 to 2003 period (see Table 3). While the male labour force participation rates have been historically high because of the male-oriented nature of the labour market, the rise of the female rate can be attributed to several factors:

- improved educational and training opportunities
- the expansion of activities in selected areas of the economy providing employment for females (e.g., information services, banking and financial services, tourism)
- the self-actualisation of women and the drive for financial independence
- the decline in fertility rates and average household size which reduces the need to stay at home for long periods
- the establishment of daycare services and the increase in modern household production technology and services which release females from traditional household production activities.

An examination of the educational attainment of the labour force indicates a general increase in the formal educational base of the labour force. There are, however, significant skill deficiencies in the Caribbean labour force. For example, 70 per cent of the Jamaican labour force reported no formal educational credentials in 2002. In Barbados, with its compulsory education requirement up to 17 years of age, it was estimated that approximately 63 per cent of the adult population had no certification in 1990, while in 2000 it was 57 per cent. Caribbean governments have responded to this skill deficiency by establishing various technical and vocational training programmes: the

**Table 3:** Labour Force Participation Rates in the Caribbean by Sex Distribution 1993 and 2003 (%)

Country	1993			2003		
	Male	Female	Total	Male	Female	Total
Bahamas	79.9	69.9	74.3	82.1	71.7	76.5
Barbados	74.1	59.7	66.3	75.0	64.0	69.2
Belize	78.8	35.0	56.5	78.1	43.0	60.3
Grenada	62.5	50.8	56.7b	75.6a	55.0a	65.0a
Guyana	81	39.3	59.5a	n.a.	n.a.	55.2b
Jamaica	74.6	62.4	68.3	73.7	55.6	64.4
St Lucia	78.9	61.2	69.4	72.5b	59.0b	65.0b
Trinidad and Tobago	75.5	43.7	59.5	74.2	48.9	61.6

Sources: ILO, Digest of Caribbean Labour Statistics and CDB, Annual Report 2005

Notes: a applies to 1999, b applies to 2002

Human Employment and Resource Training (HEART) Trust in Jamaica, Service Volunteered for All (SERVOL) in Trinidad and Tobago, and skills training programmes in Barbados, St Lucia and Grenada (see Downes, 2000 and Lochan, 2000). Available survey evidence for Barbados and Jamaica indicates that employers also undertake significant on-the-job training in order to overcome the problems associated with the skill deficiencies of new and incumbent employees.

The improved educational attainment of the labour force has also resulted in the growth of the number of professionals, technical and managerial persons in the region. This group has, however, remained relatively small and hence there is still a dependence on non-Caribbean persons in a number of skilled occupational categories. The improvement of the human capital base has also resulted in the Caribbean countries being classified as medium to high human developed countries according to the UNDP's Human Development Index (HDI). For example, Barbados, St Kitts and Nevis, Bahamas, Trinidad and Tobago and Antigua and Barbuda were classified as having 'high' levels of human development for 2004.

## **2.2 Employment**

The creation of job opportunities has been one of the greatest labour market challenges facing governments in the Caribbean over the past four decades. Various development strategies and policies have been implemented to generate employment for the available labour force: infrastructural development and public works, agricultural diversification, import substitution industrialisation, nationalisation, economic integration and export promotion (especially tourism, financial and information services). These strategies and policies have been only moderately successful as high rates of unemployment still persist in the region. Using time series data for the Bahamas, Barbados, Belize, Jamaica, St Lucia and Trinidad and Tobago (the only countries for which time series data are available), there was a general upward trend in the number of persons employed (see Table 4). The average annual growth rates over the 1990–2004 period was, however, relatively low compared with previous decades: the Bahamas (2.4 per cent), Barbados (1.6 per cent), Jamaica (1.2 per cent) and Trinidad and Tobago (2.9 per cent). There was also a high degree of variability in the pattern of employment growth over the study period.

Little empirical work has been undertaken to identify the factors that influence employment growth in the region. Although several possible causes of employment growth have been suggested – for example, the effective demand for output in both local and foreign markets, the use of certain types of production and organisational technologies, relative factor prices, the social and legal framework governing the labour market and the availability of other complementary inputs – there has been little empirical verification of the magnitude or statistical significance of these causes.

**Table 4:** Employment in the Caribbean, 1990–2004  
(‘000 persons employed)

Country	1990	1992	1994	1996	1998	2000	2002	2004
Bahamas	114.2	114.7	124.6	129.8	144.4	153.3	152.7	158.3
Barbados	105.3	101.7	105.5	114.3	119.8	125.5	128.6	132.0
Belize			62.4	65.0	73.3			
Grenada			30.4	35.0	34.8			
Guyana		245.5		239.8 <sup>1</sup>			232.4	
Jamaica	896.3	905.7	923.1	959.8	953.6	933.5	1036.8	1055.2
St Lucia			52.3	56.7	56.4	63.5	62.8	62.3
Trin/Tob <sup>2</sup>	374.1	405.9	415.6	444.2	479.3	503.4	525.1	556.3

Notes: 1. refers to 1997, 2. Trinidad and Tobago.

The empty cells indicate that the data are not available.

Source: ILO, Digest of Caribbean Labour Statistics and various national reports

<http://www.ilocarib.org.tt/digest>

The available empirical evidence on the determinants of aggregate employment in the region suggests the following:

1. Output growth is the main factor influencing employment growth (that is, labour demand is a derived demand)
2. The elasticity of employment with respect to output varies between 0.22 and 1.10 (for Barbados, Jamaica, Trinidad and Tobago over the period 1970–2001)
3. Real wage rates have a weak influence on employment expansion. There is some evidence that increases in real wages have some negative but weak impact on employment growth in Barbados and Jamaica
4. Adjustment costs (hiring and firing costs) as captured in a lagged employment variable are important in employment growth (see Downes et al, 2004, for points 1–4)
5. Recent econometric research which explicitly accounts for changes in minimum wages, severance payment and national insurance contributions in Barbados, Jamaica and Trinidad and Tobago indicates that these measures have not had a statistically significant effect on employment (with the exception of the minimum wage rate changes in Jamaica). One reason for these results is that there were few changes in these regulations over the 1970–2002 period (see Downes et al, 2004).
6. Micro-econometric research for Trinidad and Tobago indicates that “for workers who experienced compliance, the introduction of the minimum wage [in 1998] significantly increased the probability of a person becoming involuntarily part-time employed” (Strobl and Walsh, 2003), implying that employers reduced their demand for labour services by reducing employees’ work hours.

The structural adjustment policies implemented by Caribbean governments during the 1980s and 1990s had an adverse impact on the labour market and hence on poverty. These policies affected employment both *directly* and *indirectly* through the cuts in public sector employment and changes in aggregate demand. The formal private sector was not able to fully absorb the fallout from the public sector layoffs; hence there has been a growth in 'informal employment'. During the early 1990s, Barbados undertook a structural adjustment programme in response to a balance of payment crisis. The adjustment measures resulted in a fall in employment from 113,304 in 1990 to 100,400 in 1993, that is, a decline of 12,900. Most of the people laid off during the period were in the public sector, as the government sought to reduce its fiscal deficit. Jamaica, which has been in a state of economic volatility since the late 1970s, also recorded a decline in employment during the 1990s. The number of people employed fell from 963,300 in 1995 to 933,500 in 2000, that is, a decline of approximately 30,000 persons.

The available data indicate a significant increase in the number of self-employed and own-account workers. Since the labour force data in the Caribbean come from surveys that target households, employed persons therefore self-report their labour market attachment. It is therefore likely that a number of the self-employed and own-account workers are employed in the 'informal sector'.

Although the 'informal sector' can be difficult to define, recent estimates of the size of the sector indicate the following values for the late 1990s:

- Jamaica and Guyana – over 45 per cent of measured (official) gross domestic product (GDP) (see GRADE, 2002; Faal, 2003)
- Barbados and Trinidad and Tobago – 10 to 15 per cent of measured GDP (see Barbados Statistical Service, 1997/8; Maurin et al, 2003).

Data on 'informal employment' defined as self-employed (own-account workers), apprentices and unpaid family workers as a proportion of total employment corroborate the estimates of the size of the 'informal sector' in the Caribbean.

Although some 'formal' employment may be captured in the data, there seems to be an increase in 'informal employment' in Barbados, St Lucia and Belize and a decrease in Jamaica, and Trinidad and Tobago during the 1990s.

The relatively high percentage of employed persons classified as *elementary workers* (between 19 and 35 per cent in 2000) also points to a significant level of informal sector employment in the region.

The informal labour market tends to be a source of income when the economy is experiencing difficulties as persons engage in various hustling activities – street vending, car washing, petty trading, small-scale agriculture and small-scale gardening. The informal labour market becomes a source of primary income for many and a secondary income for some people.

Over the past 40 years, the agricultural sector has been a declining source of employment of the labour force in the Caribbean. For example, in Trinidad

and Tobago, the contribution of agriculture and forestry to total employment declined from 23 per cent in 1970 to 8 per cent in 2000, while in Barbados the contribution of the agricultural sector declined from 24 per cent in 1960 to 4 per cent in 2001. The sector is still important in such countries as Jamaica (21 per cent in 1998), Belize (28 per cent in 1999), Guyana (29 per cent in 1992) and, to some extent, the Windward Islands of Dominica, Grenada, St Lucia and St Vincent. The agricultural sector (mainly bananas and sugar) has borne the brunt of changes taking place in the global trading environment. With the advent of trade liberalisation, the preferential arrangements that the Caribbean countries have had with European countries are gradually being dismantled. Indeed, both bananas and sugar agreements have been subjected to WTO investigations. Several of the Caribbean countries have, therefore, sought to develop alternative economic activities primarily in the area of services (tourism, financial and information). A rough classification of the countries in the region based on sectoral shares in GDP would be as follows: services-oriented (Antigua, Barbados, Grenada, St Kitts, St Lucia) or mixed (Belize, Guyana, Jamaica, Suriname, Trinidad and Tobago, St Vincent, Dominica), where a mixed economy combines either agricultural or mineral production with services.

While the contribution of the manufacturing sector has remained relatively constant for almost all the countries of the region, there has been a significant rise in the contribution of the services sector to the provision of job opportunities. For example, in Jamaica the sectoral distribution of services to employment was over 60 per cent in 2000, while in Barbados it was over 70 per cent in 2000. The Leeward Islands of Antigua and St Kitts and Nevis have also recorded a rise in the degree of employment in the services sector. The growth of services sector employment reflects the focus of economic development policies implemented by several Caribbean governments in recent years. In order to reduce the dependency on a single economic activity (such as sugar in Barbados, bananas in St Lucia, bauxite in Jamaica and Guyana, petroleum in Trinidad and Tobago), Caribbean governments have encouraged economic diversification into such areas as tourism, international business services and information services. These 'new services' have complemented traditional services such as distribution, transport and commerce. Diversification has also been occasioned by the changing global economic environment, which has witnessed the intensification of trade liberalisation and the removal of trade preferences. These measures have undermined the economic viability of traditional economic activities in the region such as agricultural production and import-substituting manufacturing production.

In the Caribbean, the State has played a very important role in the economy by providing incentives, establishing social infrastructure, protecting property rights, facilitating the transactions process and engaging in direct production activity. In some ways, the intermediating role of the government has increased the transactions cost of economic activity, but in other ways, it has



been the source of employment for people who might not have been able to find employment in the private sector. Available data indicate that the Government accounted for between 7 per cent (Belize) and 36 per cent (Jamaica) of the employed labour force during the period 2001–2002.

Although the government is the single largest employer in the region, the private sector accounts for the largest percentage of employed. For example, in Barbados the private sector accounted for over 70 per cent of the employed in 2001, while in Jamaica, the percentage was over 80.

Additional features of the Caribbean labour market that can be highlighted from the available data are:

- a general rise in female employment in the traditional areas of clerical, sales and services. With the growth in female labour market participation over the years, female employment has, however, been increasing in the professional, administrative and technical operations, especially in Barbados, Jamaica and Trinidad and Tobago;
- while there has been a general improvement in the human capital (educational attainment) of the labour force, there is still a relatively small cadre of professional, technical and managerial personnel (between 11 to 24 per cent of the employed during the late 1990s). Using data on work permits for immigrants from various Caribbean countries, Downes and Henry (1994) pointed out that this category of worker accounted for the highest level of work permits issued in many countries. During the period 1996–97 work permits granted for professional, managerial and technical occupations ranged from 61 per cent of total permits granted in Jamaica to 83 per cent in Barbados. Although these work permits partly reflect the large number of foreign companies and organisations operating in these countries, the high percentages also suggest an inadequate supply of high-level skills;
- the bulk of the employed tend to be between the ages of 20 and 50 years, with the mandatory retirement age varying between 60 and 65 years. There is a low incidence of people who are employed over the age of 65: Barbados (less than 2 per cent), Jamaica (6 per cent) and Trinidad and Tobago (2 per cent);
- there is also a low incidence of reported moonlighting (that is, multiple job holding) in the formal labour market, about 1 per cent of the employed in the countries with available data (for example, Jamaica). It is, however, expected that in economies with significant informal sectors such as Jamaica and Guyana, the degree of moonlighting in the informal sector would be much higher;
- a decline in the degree of unionisation among the employed, although labour unions are still dominant in key economic sectors: hotels, public utilities and the public sector. It is estimated that between 20 and 35 per cent of the labour force belongs to a labour union;

- in an effort to reduce costs and increase efficiency, there has been a steady increase in ‘contract workers’ in Jamaica and Trinidad and Tobago (see Thomas, 2000).

The phenomenon of the ‘working poor’ is also evident in the region, with workers unable to receive enough income from the trade of their labour services (labour income) to meet their basic personal needs. Available data on the extent of the ‘working poor’ (defined as ‘those who work and who belong to poor households’) in the Caribbean indicate rates of 8.5 per cent and 3.5 per cent for Jamaica in 1986 and 1997 respectively, while for Trinidad and Tobago, the rates were 11.2 and 13.6 per cent for some years (see Majid, 2001). These rates are calculated as the working poor as a percentage of the employed. Downes (2000) in a review of the relationship between poverty and labour market status in the Caribbean (Barbados, Belize, Grenada, Guyana, Jamaica, St Lucia, St Vincent and Trinidad and Tobago) observed the following features of the poverty-labour market nexus:

- the human capital base of the poor (that is, level of education and degree of certification) is low and results in low-skilled, low-paying jobs (elementary occupations, small-scale enterprises and informal sector activities);
- where poverty is concentrated in identifiable communities, there is some evidence of stigmatization, which results in employment discrimination and labour segmentation;
- the seasonal pattern of production and employment (for example, in agriculture, tourism and construction) affects the degree of poverty in households;
- minimum wage legislation has been used to alleviate poverty in some countries, notably Jamaica, Trinidad and Tobago, and Guyana. In Guyana, the minimum wage has, however, been insufficient to overcome individual and household poverty;
- individuals in poor households take advantage of migrant worker programmes in the USA and Canada organised by the governments. These programmes have been targeted on agricultural farms and the hospitality sector. Remittances from these programmes help to bolster household income and smooth out consumption levels. They have also adversely affected labour market participation of some household members.

The correlation between poverty and labour market status raises the issue of the *quality* of employment. Evidence from Jamaica indicates that employment does not mean an escape from poverty as persons engaged in low wage jobs can easily slip back into poverty. In some cases, for example, during structural adjustment programmes, middle-income employed persons have slipped below the poverty line when they are laid off (Handa, 2004). This tends to occur where there are single income households.

### 2.3 Unemployment

Unemployment is regarded as one of the most difficult economic problems to resolve in the Caribbean. Although there are variations in the measurement of unemployment, official estimates of unemployment obtained from labour force surveys indicate that the unemployment rate is relatively high in the region (see Table 5). During the period 1990–2004, the unemployment rate in Barbados ranged from 9.4 per cent in 2000 to 24.3 per cent in 1993, while in Jamaica the range was 11.4 per cent in 2003 to 16.5 per cent in 1997. In Trinidad and Tobago, the unemployment rate declined from 20 per cent in 1990 to under 10 per cent in 2004. Although the data on unemployment is scant, in the Organisation of Eastern Caribbean States (OECS), the available information also indicates double digit unemployment rates in the 1990s; for example, Dominica (15.7 per cent in 1999), Grenada (15.5 per cent in 1997) and St Lucia (between 18 and 22 per cent during the period 1990 to 2004). These high levels of unemployment reflect the underdevelopment of the skills, knowledge and talents of the labour force and the under-utilisation of human energies and skills. Several policy measures and programmes to reduce the high levels of unemployment in the region have been implemented by Caribbean governments (see Downes, 2000). The unemployment rate declined somewhat during the 1990s in the Bahamas, Barbados, Belize, Grenada, and Trinidad and Tobago, but was volatile in Jamaica and St Lucia.

Econometric analysis of the factors influencing the aggregate level of unemployment has been very scant. An econometric evaluation of unemployment in Trinidad and Tobago pointed to the dominant role which output growth plays in reducing the unemployment rate, while increases in the average real wages and the real loan rate impact adversely on the unemployment rate (Downes, 1998). Other empirical research on unemployment in Trinidad and Tobago also indicates that the existence of a ‘wage gap’ (either petroleum-sugar or agricultural-non-agricultural) (Henry, 1990) and the low

**Table 5:** Unemployment Rates in the Caribbean, 1990–2004 (%)

Country	1990	1992	1994	1996	1998	2000	2002	2004
Bahamas	12.3	14.8	13.3	11.5	7.8	6.9	9.1	10.2
Barbados	15.0	23.0	21.9	15.8	12.2	9.4	10.3	9.8
Belize	n.a	n.a	11.1	13.8	14.3	11.5	10.0	11.6
Grenada	n.a	n.a	29.1	17.5	n.a	11.5	n.a	n.a.
Guyana	n.a	11.7	n.a	9.1	n.a	n.a	11.7	n.a.
Jamaica	15.3	15.7	15.3	16.0	15.5	15.6	14.2	11.7
St Lucia	n.a	16.7	19.2	16.7	21.6	16.5	20.4	21.0
Trin/Tob <sup>1</sup>	20.0	19.6	18.4	16.2	14.2	12.1	10.4	8.4

Notes: 1 indicates Trinidad and Tobago;

Sources: ILO: Digest of Caribbean Labour Statistics (various issues)  
National Labour Force Surveys

degree of capital accumulation (IMF, 1997) as factors contributing to the high degree of unemployment in Trinidad and Tobago. There is also evidence to suggest the existence of 'persistence' in the unemployment rate whereby past unemployment affects the 'natural rate of unemployment' in Trinidad and Tobago.

Many of the features of the unemployed are similar across the region. The most significant aspect is the very high levels of youth unemployment (15–24 years of age), especially among females. In all the countries, the female unemployment rate is higher than the male rate. Youth unemployment rates have generally been over 20 per cent, with the female youth employment rate varying between 30 and 45 per cent in the 1990s. Although the measurement of unemployment varies across the world, these features of high female and youth unemployment are quite common in developing countries (see, for example, Turnham, 1993).

It is generally believed that much of the open unemployment is due to structural factors, such as the nature of the educational system and its interface with the labour market, the increasing use of modern labour-saving techniques in the production process, the permanent shift in the demand for goods and services, the skill content of the labour force and, to a lesser extent, cyclical factors such as the insufficiency of aggregate local and foreign demand for goods and services. Structural adjustment programmes have also contributed to the unemployment problem in the region. For example, in Barbados, the unemployment rate reached 25 per cent during the implementation of a structural adjustment programme during the 1990s. In the Windward Islands, the decline in the fortunes of the banana industry has contributed to the high rates of recorded open unemployment in Dominica and St Lucia.

The factors which affect the general unemployment rate also affect youth unemployment in the region. The International Labour Organization (ILO, 1996) has identified the following determinants of youth unemployment in the region:

- inadequate aggregate demand to generate enough jobs to absorb the new entrants to the labour market
- inappropriate education and training which do not match the requirements of the workplace
- the lack of work experience when entering the labour market
- the absence of well-functioning vocational guidance and placement facilities
- a poor attitude to work and low work aspirations
- the avoidance of certain types of jobs which are low-paying and have low status. Reservation wages are high so that the youth prefer to queue for better paying jobs (that is, wait unemployment) and obtain support from family and friends
- the impact of new labour market developments – emphasis on flexibility, multi-skilling and outsourcing.

An important feature of the unemployed is their low level of educational and training attainment. In Jamaica for example, over 80 per cent of the unemployed had received no training in 2000, while in St Lucia over 60 per cent of the unemployed had no education or had only reached 'standard 6' education in 1995. In Barbados, more than 75 per cent of the unemployed had received secondary level education in 1999 due to the institution of compulsory education for all children up to 17 years of age. However, in 2000, 57 per cent of the adult population had no form of formal certification.

Unemployment tends to be low or non-existent among those with tertiary level or university education. Professional, technical and managerial occupations exhibit low or zero levels of unemployment, reflecting the degree of scarcity of such skilled persons. The bulk of the unemployed generally indicates that their usual or standard occupation is sales/clerical, 'elementary production' and general production. Available data for some Caribbean countries (Barbados, Trinidad and Tobago and Jamaica) indicate that some of the unemployed experience long spells of unemployment. The modal range for the duration of unemployment in Barbados is 6 months to one year. The long spells of unemployment can result in the depreciation of the few skills possessed by the unemployed, hence making them unemployable in the formal labour market.

In terms of the geographical features of unemployment, high levels of open 'urban' unemployment exist in the larger countries (Jamaica, Guyana, and Trinidad and Tobago) while 'rural' unemployment and underemployment exist in the OECS.

One of the problems faced by the unemployed tends to be the absence of a social safety net in the form of social insurance. At present, Barbados is the only country within the region with an unemployment insurance scheme. The Scheme covers salaried workers between the ages of 16 and 64 years (excluding the self-employed and government employees) who must make contributions for 52 weeks in order to qualify for the payment of an unemployment benefit. Seven of these contributions must be paid in the quarter preceding the quarter in which the benefit is paid. Qualified people are paid up to 26 weeks of benefits in a year at a rate of 60 per cent of the original salary up to a maximum salary of Bds\$715 per week. People must be actively looking for work during their period of unemployment before being paid the benefit. The number of claims rose from 9,814 in 1985 to 20,396 at the height of the economic decline in 1992. There has been a gradual decline since then. Data from the severance payments scheme in Barbados suggest that the main reasons for severing employment over the years have been the re-organisation of business operations (to meet the new competition and technological demands) and the closure of companies (due to a permanent shift in demand and/or a prolonged decline in economic activity). The co-existence of an unemployment insurance scheme and a severance payment scheme can

encourage some degree of 'double dipping' by the severed/unemployed person.

In terms of job search activity among the unemployed, the available data indicate that job search takes place primarily through applying in person or inquiring from friends (that is, social networks). Little use is made of employment bureaus (see Downes and Gunderson, 2003). Abt Associates (1998) reached a similar conclusion relating to the development and use of employment services in the Caribbean. Barbados, Trinidad and Tobago and, to a lesser extent, Jamaica have operational public employment agencies (Abt Associates, 1998; Statistical Annex, Table A-4). Employment bureaus are used primarily by those who have to indicate that they are seeking work in order to receive some form of assistance (e.g., unemployment insurance) or who register to go on external labour programmes.

#### ***2.4 Determinants of Labour Force Participation and Unemployment***

It was noted that there has been a general increase in the labour force participation rates in the Caribbean with the female rate increasing over time and the male rate remaining relatively constant. The changes in the labour force have implications for the unemployment rate, defined as the percentage of the labour force which is available for and seeking work during a specified period. Most countries in the Caribbean also include discouraged workers in the measure of unemployment (i.e., there is no job search requirement). Many factors influence the decision to enter the labour market, including: age, education, household size and characteristics, marital status and other socio-economic elements. Using probit analysis, the factors affecting the decision to enter the labour market (that is, those that increase the probability of being part of the labour force) can be identified and the magnitude of the effect estimated. Such an analysis was undertaken using labour force data for Barbados, Guyana, Jamaica, St Lucia, and Trinidad and Tobago (see Downes 2004, for the complete regression results).

The econometric analysis provided the following results for the male and female labour participation decisions:

- Age is an important factor in the labour participation decision. The relationship is quadratic, with decision to participate increasing with age, reaching a peak and then subsequently declining. The male participation rate for Barbados seems to be an exception to this general result;
- Education is a statistically significant variable in the decision to participate. Both male and female workers enhance their human capital (via education and training) in order to trade their labour services in the labour market;

- Marital status is also a key element in the decision-making process. Widowed, separated or divorced females are more likely to engage in labour market activity than married females. The effect is the reverse for men, whereby married men have a higher likelihood of entering the labour force than those in other marital categories;
- The nature of the 'headship' of the household also seems to influence the labour force participation decision. Where households are headed by females, with or without the presence of a male, there is the decision on the part of females to participate in the labour market. Where a male is present in the household, there is an increased probability that he would participate in the labour market;
- There is evidence for St Lucia and Jamaica that remittances from abroad tend to dampen the decision to participate in the labour market. Recent econometric research by Kim (2007) and Bussolo and Medvedev (2007) confirm the importance of remittances in reducing the degree of labour force participation in Jamaica by raising the reservation wage of potential job seekers.

These econometric results corroborate the general patterns observed in the aggregate data on labour force participation and unemployment in the region.

Female participation rates are much lower than male rates in all the countries for which data are available. As indicated earlier, female rates are increasing faster than male rates and may reflect the importance of human capital (education) and the female-headed nature of households as observed in the probit analysis of labour force participation.

Available data for labour market participation by age indicates that peak rates are observed in the 30–45 years of age categories. Participation rates for both males and females tend to be low for the age group 15–19, and then rise to peaks in the 30–45 years of age category and then decline in the higher age groups. This reflects the quadratic relationship observed in the econometric analysis.

Few data are available on the labour force participation rates by educational attainment and urban/rural distribution. Data for Trinidad and Tobago suggest that participation rates increase with educational qualifications/attainment, while data for Dominica indicate high participation rates for people outside the capital, Roseau.

It is expected that some of the factors which affect the participation decision are likely to affect the unemployment status of the individual. A probit analysis of unemployment in Barbados, Guyana, Jamaica, St Lucia, and Trinidad and Tobago was conducted to understand the characteristics of the unemployed and to infer what types of worker characteristics are in demand by employers. The following results emerge (see Downes 2004, for the full results):

- Age is a significant element in the probability of being unemployed. The relationship is quadratic with the probability of being unemployed rising with age to a given age and then declining. In effect, younger persons are more likely to be unemployed than older persons;
- Education is also a key element in the probability of being unemployed. Males and females with complete or incomplete primary level education have a higher probability of being unemployed, while those with tertiary level education have a lower probability of being unemployed, which suggests an excess supply of workers with low skills;
- As expected, in economies with high levels of unemployment, first-time job seekers exhibit a high probability of unemployment since they have little or no work experience and are therefore forced to join the job queue;
- The results clearly indicate that workers in rural areas have a higher probability of being unemployed;
- The nature of the household also seems to influence the probability of unemployment. Being a male head of a household is associated with a high probability of being unemployed;
- Remittances increase the likelihood of being unemployed, which could indicate voluntary unemployment (as households are supported by cash from abroad). But if causality goes in the other direction, this result could be explained by the fact that the unemployed are more needy and therefore more likely to receive remittances;
- Both male and female youth unemployment (20–24 years) are affected by the same factors as adult unemployment, namely, low educational attainment, living in a rural area and being a first-time job seeker;
- Among unemployed youth, age reduces the probability of unemployment, suggesting that new entrants eventually find jobs.

These econometric results corroborate the general patterns observed in the aggregate data on unemployment in the region.

Data on unemployment by age confirms the econometric results relating to the probability of being unemployed. The unemployed are concentrated in the 15–30 years age group and represent a serious youth unemployment problem in the region. As indicated earlier, the degree of unemployment is highest among female labour force participants.

In order to understand the nature of unemployment and its duration, it is important to distinguish between ‘discouraged workers’ who have effectively exited the labour force and the actively unemployed who engage in job search. Recent research on the behaviour of unemployed persons in Trinidad and Tobago has provided some interesting conclusions. Valtonen (2001) found that the “chronically unemployed (i.e., discouraged workers) showed a consistent lack of up-to-date knowledge of the labour market, whereas those who were successful in finding employment did have this type of information, through ‘weak ties’ based on family and previously established labour market



links” (p. 171). She also found that “while affiliation with the formal economy could strengthen an individual’s position in the labour market, association with the informal sector did not seem to give any better advantages in finding employment” (p.171). These findings are associated with ‘residential discrimination’ and ‘job history discrimination’ in the labour market. There is qualitative information that suggests that these features are common throughout the Caribbean where people who live in ghetto or deprived areas or who have a history of frequent short employment spells find it difficult to find a job. Job seekers therefore ‘embellish’ their resumes to provide signals that would attract the attention of prospective employers.

In a later study, Valtonen (2003) confirmed the importance of “belong(*ing*) to circles” as being important in shaping employability. This forms part of the individual’s social capital, as employed and unemployed persons can network and share information on job openings with those looking for employment.

Strobl (2002) and Byrne and Strobl (2005) examined the nature of unemployment in Trinidad and Tobago from the point of view of their job search strategies. They noted that Trinidad and Tobago has used a broader definition of unemployment than that provided in the standard ILO guidelines. They found that:

- including marginally attached males to the labour force raises the degree of labour market slack or unemployment rate. In effect, Trinidad and Tobago’s unemployment rate would be higher than countries that used the ILO definition (see also Downes, 1998);
- for non-employed males, the decision of whether to search for a job is related to cyclical conditions, that is, in bad times (downturn) more men are discouraged from actively seeking employment;
- the incidence of non-search among the non-employed has increased over time;
- men who are marginally attached to the labour market do not behave differently from those unemployed persons who are currently looking for a job, especially in the rural areas;
- the concept of ‘job search’ may not be meaningful or important for ‘rural men’ compared with ‘urban men’ because of the seasonality of work, the higher cost of job search, the higher unemployment rate in the rural areas and the remoteness of the rural areas.

The micro-regression results and the aggregate descriptive data indicate that inadequate skills or low educational attainment are key factors underlying unemployment in the region. There is some degree of voluntary unemployment as people queue up for jobs in the public and private sectors. Migration and associated remittances tend to raise the reservation wages of workers in some countries. The data also suggest the existence of a significant discouraged worker effect.

## ***2.5 Wages and Earnings Determination***

The labour market provides the main source of income for a very large part of the adult population in the Caribbean. Workers seek employment opportunities in their own countries as well as in other countries. High levels of unemployment and low wages have forced Caribbean workers to seek employment outside their home countries. Both intra- and extra-regional migration have been important features of the Caribbean social economy for over a century. Although large-scale organised migration to the UK, USA and Canada has largely ceased, there has still been a steady stream of workers to the USA and Canada from the Caribbean, especially Guyana, Jamaica and, to a lesser extent, Trinidad and Tobago.

In addition, Caribbean governments have negotiated special labour schemes with American and Canadian employers whereby workers are contracted to work on farms and in the services sector (e.g., hotels). These contracts provide seasonal employment for a relatively small group of workers who are normally employed in the agricultural, construction and general services sector (see, Downes and Odle-Worrell, 2003).

Remittances from permanent migration and special labour programmes have played a critical role in the survival of households in the Caribbean. For example, LeFranc and Downes (2001) found that remittances from Jamaican workers played a critical role in alleviating poverty in Jamaica during the 1990s. Both permanent and temporary migration therefore provide a means whereby foreign exchange is generated by the export of surplus labour.

Migration and its associated remittances are expected to have an impact on the local labour market. Since wages and earnings are generally higher in the receiving countries, the reservation wages of potential migrant workers would be higher in the domestic market. For example, a worker would prefer to remain unemployed than to work on a sugar plantation at home. He would, however, take a similar job working in Florida. Data for selected countries indicate that wages per hour are generally lower in the Caribbean than in other developing countries (see Table 6). Wage rates in the manufacturing sector for Jamaica and the Dominican Republic can be regarded as being competitive vis-à-vis Costa Rica, Malta, and Trinidad and Tobago. Although several Caribbean countries have minimum wage legislation, in many cases the average wage is considerably higher than the minimum wage, especially where labour unions are strong. In some cases, the average wages for selected sectors are used to set minimum wages.

Earnings function analysis points to important factors that influence the earnings of workers in the region. Using data from recent labour force surveys in Barbados, Jamaica, St Lucia, Guyana, and Trinidad and Tobago, the determinants of the log hourly wage, or earnings, (that is, Mincer regressions) were identified. The regression results (reported in Downes, 2004) indicate that hours worked, educational attainment, training and experience are key variables in determining the earnings of individuals. These factors have

**Table 6: Wages and GDP in Selected Countries (1997)***(US\$)*

<i>Country</i>	<i>Wages per hour*</i>	<i>GDP per capita</i>
India	0.19	374
Sri Lanka	0.31	816
Philippines	1.34	1,119
Guatemala	1.23	1,584
Jamaica	0.73	1,609
Dominican Republic	1.51	1,855
Thailand	0.99	2,542
Costa Rica	1.69	2,714
Panama	3.39	3,034
Mauritius	0.90	3,841
Mexico	1.02	4,250
Trinidad and Tobago	3.40	4,510
Malta	3.62	8,838
Canada	12.13	20,145
United Kingdom	13.97	21,864
United States	13.17	29,278
Singapore	8.72	31,161

*Note:* These are based on wage rates in the manufacturing sector provided by the ILO

*Source:* <http://www.ia.ita.doc.gov/wages>

a positive impact on earnings. Other key features suggested by these regression results are:

- individuals from rural areas have lower earnings than those from non-rural areas
- working as a public sector employee has a positive impact on earnings, which implies that public sector employment can be distortionary and may lead to queuing
- working full-time rather than part-time increases hourly wage earnings
- working in the agricultural sector and/or in elementary occupations depresses individual earnings.

Wage rates in the Caribbean are set largely by the collective bargaining process or via legislation in the form of minimum wages for certain occupational categories, or the country as a whole. Two approaches to the setting of minimum wages have been adopted by Caribbean countries. A few countries have implemented a national minimum wage: Antigua and Barbuda, Jamaica, and Trinidad and Tobago. Other countries have adopted an occupational minimum wage structure: Barbados, Belize, Dominica, Grenada, Guyana, St Kitts and Nevis, and St Vincent and The Grenadines. In the case of occupational minimum wages, most countries have focused on setting rates for such occupational categories as shop assistants, domestic (household) workers and security workers. In addition to a national minimum wage, Jamaica has also

introduced minimum wages for these groups of workers. In some countries, some of these workers – shop assistants and security workers – are members of trade unions, so that their average wages are usually higher than the stipulated minimum wage rates. Adjustments in the minimum wage rates usually take into consideration changes in prices in the country rather than an assessment of poverty levels.

Some research was undertaken during the early 1990s on the determinants of nominal wage increases at the aggregate level in Barbados, Jamaica, and Trinidad and Tobago. In the case of Barbados, labour productivity changes have been identified as the main determinants of real wage increases over the 1955–1990 period (Downes and Leon, 1994). They found that a 1 per cent increase in labour productivity results in a 0.27 per cent increase in real wages.

In Jamaica, real wage growth has been influenced by unemployment (–), price inflation (+) and such ‘social variables’ as ‘real wage stickiness’, ‘real wage share’ and ‘target real wage’ (+) (see Hamilton, 1994). In the case of Trinidad and Tobago, past price increases, unemployment growth and output growth (a proxy for productivity growth) have been shown as the main factors influencing nominal wage rates. No recent research has been undertaken on these relationships.

## **2.6 The Role of Labour Legislation**

It has been argued that labour market legislation has contributed to increases in wages and earnings in the Caribbean. Caribbean countries started to become members of the ILO from 1962. Several of the ILO’s conventions have been ratified over the years. Out of 71 conventions, Guyana has ratified 45; Belize 42 and Barbados 39 (see Table 7). The Caribbean countries have ratified almost all of the eight fundamental conventions: forced labour (1930); freedom of association and the right to organise (1998); right to organise and collective bargaining (1949); equal remuneration (1958); minimum age (1973) and the worst forms of child labour (1999). With the exception of Belize, Guyana and Suriname, there has been less success with the ratification of essential labour administration conventions (see Table 7).

Many of these conventions have given rise to various forms of labour legislation aimed at enforcing these conventions. These legislative measures give rise to quasi-fixed labour costs, which affect the demand for labour although the extent of effective enforcement is relevant. Various attempts have been made to summarise these measures in index form (see Downes, 2002 for a summary). Using the two indices developed by Rama (1995), the index of labour market rigidity; and Marquez and Pages (1998), the index of employment protection, the Caribbean countries exhibit a lower degree of labour market rigidity and employment protection than Latin American countries. Rama’s index of labour market rigidity combines the following labour market regulations: number of ILO conventions ratified, annual leave with pay (in

**Table 7: Ratification of ILO Conventions by Caribbean Countries\***

<i>Country</i>	<i>Fundamental Conventions (8)</i>	<i>Essential Labour Administration Conventions (16)</i>	<i>Other Conventions (57)</i>	<i>Total (71)</i>
Antigua and Barbuda	8	11	8	15
Bahamas	8	4		
Barbados	8	5	26	39
Belize	8	9	25	42
Dominica	8	5	9	21
Grenada	8	3	20	28
Guyana	8	8	28	45
Jamaica	8	4	16	26
St Kitts and Nevis	8	1	—	8
St Lucia	7	3	18	28
St Vincent and The Grenadines	7	2	12	21
Trinidad and Tobago	8	1	9	16

*Source: Goolsarran S.J (2005): Caribbean Labour Relations Systems: An Overview (ILO, Caribbean), pp. 242–249*

*Note: \*(as at 30 November 2005)*

days), maternity leave (in days), social security contributions (percentage of wages), government employment (percentage of the labour force), minimum wage (percentage of average wage), severance pay (monthly wages paid) and unionisation (percentage of the labour force). These indices are evaluated on a scale with minimum and maximum values and then aggregated.

Marquez and Pages (1998) used a similar ranking of a range of labour market regulations: length of probation periods, advance notice periods, the actual cost of dismissing a worker, whether dismissals related to firms' difficulties are likely to be deemed a just or unjust cause for dismissal and whether reinstating the worker in his/her job is mandatory once a dismissal is deemed unjust. The summary index of employment protection gives an ordinal rather than a cardinal scale of measurement. In many cases, labour legislation has not been changed for several years, other than regular adjustments to the minimum wage. While these legislative measures along with negotiated benefits may have increased the level of wages, the impact on employment has not been significant according to the methodology used in Downes et al (2004). Downes et al (2004) used time series regression analysis to examine the impact of minimum wages, national insurance payments and severance payments regulation on employment in Barbados, Jamaica, and Trinidad and Tobago over the period 1970–2000. They found that these measures had little impact on employment. Output expansion was the dominant variable in the regression equations. During the economic crisis in Barbados in the early 1990s, the Government of Barbados changed the Severance Payment Scheme

payment arrangements, making it easier for firms to lay off workers. On the other hand, the widespread trend of growing informal sector employment provides counter evidence that rising labour costs may have indeed reduced labour demand in the formal sector.

While not a legislative measure, several countries in the region have been engaging in social partnerships (government, labour unions and private sector associations) in an effort to control the extent to which labour market arrangements, such as collective wage bargaining, affect the economy. Probably the most successful of these arrangements is the social partnership in Barbados. At the height of the economic crisis in the early 1990s, the social partners implemented a prices and incomes policy which initially called for a freeze on increases in basic salaries and wages and later a restraint on such increases (see Downes and Nurse, 2004 and Fashoyin, 2003, for a full discussion). This arrangement has been extended to subsequent protocols covering a wider range of national, economic and social issues.

## ***2.7 Labour Market Segmentation and Labour Mobility***

Caribbean labour markets have been described as being segmented or composed of distinct sectors with limited inter-sectoral mobility (see Anderson, 1987; Doeringer, 1988 and Panton, 1993). Segmented labour markets are generally characterised by some degree of discrimination based on age, sex, race or ethnicity (see Bosworth et al, 1996, chapter 2). But segmentation can also arise as an unintended or indirect result of other policies. Consider public-private segmentation, which is evidenced through the positive public wage premium as well as the non-wage benefits that public employees receive. Public compensation policies and the relatively large size of the public sector together create divisions in the labour market through labour supply decisions and queuing.

A review of the literature on the operation of labour markets in the Caribbean reveals some evidence of segmentation and discrimination. Anderson (1987) observed that labour market segmentation exists in Jamaica. Using data from a National Mobility Survey in 1984, she argued that the Jamaican labour market can be segmented into three components: primary, secondary and informal. Within these three components, “the presence or absence of worker protection serves to divide the labour market into different segments with varying outcomes” (p.149). She observed that the primary (formal) sector is small, while the secondary and informal sectors are much larger. There was evidence of occupation sex segregation involving women in the teaching and health profession (e.g., nurses), while males dominate in manufacturing, construction and large-scale agriculture. Women were dominant in the informal sector.

Anderson (1987) also noted that there are differences in the age structure of the different labour market segments with the formal primary, central

government and secondary sectors being dominated by those who are better educated and under 40 years of age, while the informal sector consisted of older, less educated persons. She also observed that the labour market was segmented along average income levels, with primary sector workers receiving higher average incomes than those in the secondary and informal segments. She concludes that “there are marked differences in the age, sex and education composition of workers in each sector”, which are reflected in income differentials. These differentials cannot be fully explained by differences in human capital as the “structural effects of labour market location” (that is, within a sector or geographical location) are critical (p.165).

The results are corroborated by the micro-regression equation results, reported in Downes (2004), which indicate the lower levels of educational attainment (low human capital) and hence secondary or informal labour market status are associated with lower earnings.

Panton (1993) has provided an extension of the Anderson framework by indicating that Caribbean labour markets can be divided into:

- Formal – primary and secondary
- Informal – urban, rural and non-farm and rural farm
- Central Government.

The formal primary labour market consists of large-scale capital intensive firms with high wages (bauxite/alumina companies, hotel chains, financial firms). The formal secondary market consists of medium-scale labour intensive firms with low wages and operating in a highly competitive environment (distribution, trading, small- and medium-size operations). The informal labour market consists of urban self-employed, who hustle in petty trading, small-scale production, traders/higglers who market the produce of small farmers and rural self-employed and rural labourers. He applied this extended framework to the Jamaican situation over the period, 1950–1990.

Doeringer (1988) observed that conditions in Jamaica vary significantly between the labour market segments with arrangements in the informal sector being loose and unstructured while those in the formal sector are characterised by union agreements or established internal labour market rules.

Further evidence of labour market segmentation has been provided for other countries. In the case of Trinidad and Tobago, a study by the World Bank (1994) observed the following:

- workers in unionised firms in the manufacturing sector earned over twice as much per hour for the same work as workers in non-unionised firms
- average wages in the public sector are higher than those in the private and informal sectors
- compensation at the higher professional levels in the public sector is lower than in the private sector, but at lower levels, wages are higher than in the private sector

- professional and skilled workers earn more than semi-skilled and unskilled workers
- wages are generally higher in urban areas than in rural areas
- males are generally paid more than females in the same occupational class (see pp. 16–18).

These results, which indicate that there is a premium for being male, unionised, educated and located in the urban sector, are consistent with the preceding wage regression results for Trinidad and Tobago. There is evidence of discrimination against women in the earnings functions with the male–female gap being 18 per cent in 1992. The micro-regression wage equations for Barbados, Guyana, St Lucia, and Trinidad and Tobago indicate that being female is associated with lower wages/earnings (see Downes, 2004). Early analysis by Deutsch (1994) and Coppin (1996) found similar elements of segmentation and discrimination in Barbados. Using data from the Continuous Household Sample Survey for 1992 and 1993 they also found that:

- years of schooling had a positive and significant impact on earnings, with women benefiting more from post-primary education. Education was a significant variable in the earnings functions for young and older women and those who work in both the private and public sectors;
- experience had a positive and significant effect on earnings, especially for women in the public sector and for younger people;
- hours of work had a positive and significant impact on earnings for males, but not for females;
- on-the-job training was particularly important to older women and men, while institutional training increased the earnings of males;
- skilled occupations contributed positively to female earnings while white-collar occupations carried a premium over other occupations;
- both men and women received a premium for employment in the public sector associated with job security and pension rights.

Data for Barbados show that the average earnings of men are greater than for women and are largely associated with occupational segmentation. Women, in general, receive higher returns to vocational training and education than males. With more women obtaining tertiary level education, they have a greater probability of finding a job so that average earnings of women can converge to those of men in the long run. The estimated value of the coefficient for the female variable (female = 1, male = 0) in the earnings/wage equations was statistically significant for all the countries and therefore represents a significant wage premium associated with the sex of the worker.

The estimation of earnings functions for Jamaica showed that schooling has had a significant and positive impact on earnings, with the return to education higher for females than for males by at least 8 percentage points (Mackinnon-Scott (1992)). She also found that wage differentials between males and females in Jamaica were not a function of different levels of human



capital, but due to the pricing mechanism (that is, what the labour market would pay for an employee controlling for human capital features).

Labour market theories in the Caribbean have always emphasised the existence of a 'wage gap' between sectors and geographical locations that influences the nature of unemployment. For example, it has been observed in Jamaica that "wage differentials between the manufacturing and service sectors can be over 50% and between manufacturing and agriculture, 150%" (World Bank, 1994, p.53).

Recent data on the labour markets in the Caribbean tend to re-confirm the findings of the earlier studies discussed above. There has been a shift from agricultural sector employment to services sector employment in all the countries. The shift has been significant in Barbados and Jamaica, both of whom have developed their tourism and financial services sectors. The shift towards the services sector has also resulted in an increase in employment for females. In general, more females than males are employed in the services sector; for example, in Barbados the services sector (tourism, financial services, and general services) employed 14,600 males in 1991 and 20,400 males in 2001, while 18,400 females were employed in 1991 compared with 26,600 in 2001.

The micro-regressions for the wage/earnings equations for the selected Caribbean countries provide results that indicate some degree of sectoral and locational segmentation in the labour market. A wage premium exists for working in the public sector (especially in the middle to lower categories) in Barbados, St Lucia, and Trinidad and Tobago, but not in Guyana. Wage and salaries in the Guyanese public sector have generally been lower than in the private sector. During the 1990s, the Guyana government granted wage increases to public employees in order to bring wages and salaries "closer in line with the private sector at the lower skill categories of employment" (see Egoume-Bossogo et al, 2003, p. 32). Wages tend to be higher in 'urban areas' with the exception of Guyana, where agricultural production – rice, sugar, coconuts, and so on – for export results in higher wages and salaries than in non-agricultural activity (except bauxite mining). In other countries, wages are much higher in the tourism, distributive trades and financial services sectors.

Although females have improved their educational attainment over the years, they still dominate traditional occupations (clerical, service and sales), while males are dominant in elementary occupations (professional, craft, construction and assembly). In effect, there is still occupational segmentation in the region.

An examination of average wages in Jamaica over the period 1996–2000 indicates that a 'wage-gap' still exists in Jamaica. The lowest average wages are observed in the wholesale, retail, hotel and restaurant sector, while the highest average wages are associated with employment in the transport, storage and communications sector. The ratio of the highest average wage to the lowest average wage increased from 2.7 in 1996 to 3.2 in 2000. In Jamaica, the community, social and personal services sector was the main employer of

female labour during the 1990s, but it is one of the lowest paying sectors. Seguino (2003) found evidence of job segregation and employment discrimination in explaining why women are more likely to be unemployed than men in the Caribbean.

An examination of the ratio of the short-term unemployed (less than three months) to the long-term unemployed (over three months) indicates an increase in the ratio for Barbados, Jamaica, St Lucia, and Trinidad and Tobago during the 1990s. Belize exhibited a decline in its ratio. A decline in the ratio is associated with some degree of mismatch in the labour market, since the inability to gain a suitable job results in long periods of unemployment. It should be noted that, although in Jamaica the unemployment duration ratio increased over the period, there was a large percentage of the unemployed who had never worked (between 30 and 40 per cent of the unemployed). This suggests a serious mismatching problem in the Jamaican labour force. The degree of mismatch is higher for females than for males as the unemployment duration ratios are higher for females than for males for all the countries.

## ***2.8 Stylised Features of the Caribbean Labour Market***

The overview of the Caribbean labour market outlined in the previous sections point to certain stylised features covering the period 1990–2005:

- a slow-down in the growth of the labour force associated with a low rate of population growth and an ageing of the population
- a higher male labour force participation rate than female rate, but a gradual increase in the female rate
- a general improvement in the educational attainment of the labour force, although there are still important educational and skill deficiencies
- a general trend of positive employment creation (outpacing labour force growth) which has been influenced primarily by output growth
- high level of unemployment, especially among the young (15–25 years of age) and female segments of the labour force
- significant out-migration (of generally higher-than-average skilled workers) and the return of remittances to the sending countries
- the significant in-migration which reflects a re-allocation of labour within the Caribbean (that is, from more developed to less developed countries)
- the disproportionately large size of the public sector
- growth of service-oriented employment and a decline in agricultural- and industrial-oriented workers
- a growth in informal employment
- a decline in the degree of unionisation, but labour unions are still strong in key sectors of the economy: hotels, ports, public utilities and the public sector

- a downward rigidity in nominal wages, with some degree of ‘real wage resistance’ in some countries
- nominal wage increases are determined primarily by inflation rather than productivity increases
- some degree of segmentation in the labour market with respect to sex and sector
- the relatively low degree of formal regulation.

### 3. HUMAN RESOURCES DEVELOPMENT

#### 3.1 *Training and Skill Development*

Investment in education, training and skills development is regarded as being critical to economic growth and export competitiveness in small developing countries. Caribbean governments and companies have invested in human resources development (HRD) over the past few decades in an effort to improve the quality of the supply of labour. Several initiatives have been tried: curriculum reform, universal primary and/or secondary level education, the vocationalisation of the secondary school system, skills training programmes, incentives for private sector training, special technical and vocational training programmes, apprenticeships, entrepreneurial development programmes and job placement programmes. Many of these programmes have been targeted at the youth who have been most severely affected by unemployment and underemployment (see Downes, 2000).

Early attempts at overcoming the unemployment problem through HRD measures focused on the incorporation of technical and vocational subjects in the secondary school curriculum. It was argued that the traditional curriculum did not prepare students with the knowledge and skills needed for a technologically dynamic economy. Furthermore, several students were leaving the secondary (and primary) school system with little certification that could signal their productive abilities to employers. The inability of the secondary schools to accommodate all the students graduating from the primary level meant that students left the school system at an early age with few meaningful skills. While primary level education is ‘universal’, secondary level is not universal in the region. Governments have sought to address this problem by expanding the secondary school system and diversifying the primary and secondary school curricula. Comprehensive schools were introduced in the 1950s and 1960s to provide a broader educational base for students who were unable to gain access to the traditional secondary grammar schools. In the Barbados 1960–65 Development Plan, one of the main objectives of the educational programme was the development of technical education to contribute to the industrial needs of the country. The secondary school curriculum was expanded to incorporate industrial arts (metal and woodwork), home economics and agricultural science. The curriculum of these comprehensive schools was

designed to reflect the requirements of an expanding economy, especially in the areas of agricultural and industrial development. The early 1960s saw economic development policy in Barbados focusing on manufacturing development propelled by fiscal incentives, the building of industrial parks and the training of people in industrial techniques of production.

In Jamaica, technical high schools were established in the 1960s in order to respond to the commercial and industrial sectors' calls for more trained personnel in the technical and vocational areas. In several traditional and new secondary schools, vocational and technical teaching departments were established (see Morris, 1996).

In Trinidad and Tobago, the 1968–1982 Educational Plan provided the major thrust for the development of technical and vocational education. Pre-vocational and even specialised training were offered at the senior comprehensive secondary level. These schools were expected to provide students with options from four basic fields of technical education: agriculture, technology, home economics and commercial education.

The main examining body at the secondary level in the Caribbean, the Caribbean Examination Council (CXC), offers examinations in a range of technical and vocational subjects: agriculture science, art and craft, bookkeeping and principles of accounts, clothing and textiles, electrical technology, electronics, food and nutrition, information technology/computer studies, technical drawing, and shorthand and typewriting. The introduction of these subjects at the secondary school level marks a major change in the development of the human resources of the Caribbean. These provide teenage school leavers, who are about to enter the labour market, with the basic knowledge and training to cater to the needs of employers. The introduction of technical and vocational subjects at the secondary school level was therefore considered to be part of the general educational process, to provide a higher level of skill acquisition and instrumentality (i.e., the ability to design, problem-solve, plan, and so on) and to be a means of certifying the competence of students via formal examinations.

While some success has been achieved with the vocationalisation of the secondary school system, some countries have reconsidered this element of their HRD strategy. For example, in Trinidad and Tobago, consideration was given to concentrating technical and vocational education and training (TVET) in the post-secondary system (see Downes and Henry, 1994). The data on TVET in the secondary school system point to the low registration of students in several subjects (agricultural science, craft, shorthand, electrical technology), the poor performance of students in CXC examinations, the high unit costs of TVET facilities, insufficient qualified TVET teachers, poor standards of literacy and numeracy of graduates, the lack of modern equipment and the unavailability of materials and supplies on a continuous basis. It was found that TVET programmes offered at the secondary level did not improve the employment or earning prospects of graduates vis-à-vis conventional

school leavers. The new approach to HRD within the context of TVET in Trinidad and Tobago consists of two parts:

1. the development of a universal core curriculum at the secondary school level aimed at improving language arts, mathematics, cognitive and social skills which are all needed for TVET, and
2. the gradual phasing out of TVET specialisation in the secondary schools in tandem with the introduction and implementation of a new general curriculum.

Greater effort has therefore been placed at strengthening the post-secondary provision of TVET services. The secondary school system is expected to provide the basic educational background, which is vital to the development of technical and vocational training. In Jamaica, the Government introduced a Reform of Secondary Education (ROSE) project in which technical and vocational subjects will be taught in a thematic form (see Morris, 1996).

While Governments in the region have sought to increase the labour marketability of school leavers by introducing TVET in the secondary school system, the most significant HRD initiatives have been at the post-secondary level. The governments have established formal technical and vocational training institutions and a number of specialised skills training programmes. The graduates of these institutions meet labour market needs at different levels of the production process: engineer, technologist, master craftsman/technician, multi-skilled craftsman, skilled craftsman, craftsman and apprentice.

Well-established technical and vocational institutes exist in the more developed countries of the Caribbean: Barbados, Jamaica, and Trinidad and Tobago. In Trinidad and Tobago, the main institutions offering a range of technical and vocational programmes have been the San Fernando and John Donaldson Technical Institutes and the Hotel School. These institutions offer a range of craft, technician and service skills and students are certified through national and foreign examinations.

In Barbados, the Samuel Jackman Prescod Polytechnic and the Barbados Community College are the primary institutions providing technical and vocational training. The Barbados Institute of Management and Productivity (BIMAP) offers a range of short managerial and supervisory courses targeted at mid-level managers. In recent years, emphasis has been placed on the training of persons in computing and related areas. These programmes for employed people complement the Government of Barbados' thrust to infuse information technology into the school system in order to enhance student learning and provide students with the tools and skills to meet the challenges of the twenty-first century (see Cobbe et al, 1998 for a full economic assessment). A TVET Council has been established by the Government to oversee that development of TVET in collaboration with the Barbados Vocational Training Board. The Barbados government is now seeking to amalgamate the Barbados Community College, the Samuel Jackman Prescod Polytechnic

and the Erdiston Teachers' Training College into the University College of Barbados (UCB).

In Jamaica, the College of Arts, Science and Technology (CAST) was upgraded to the University of Technology (UTECH) and provides the higher level training in the science and technology areas needed by the Jamaican economy. The University of the West Indies (UWI) and the University of Guyana (UG) also provide degree-level education and training for people entering higher levels of the occupational ladder. The State Colleges in the Organization of East Caribbean States (OECS) – Antigua and St Lucia – also provide post-secondary level education and training (see CARICOM Secretariat, 2006, for a full discussion).

Given the shortage of skilled and well-trained personnel in the region, graduates from these special technical and vocational institutes are readily employed in the labour market. Indeed, unemployment rates among skilled technicians and associated professionals tend to be relatively low in the region (for example, less than 5 per cent in Trinidad and Tobago).

The greatest effort at HRD in the region has been in the area of specialised skills training programmes targeted primarily at the youth. All the countries of the regions have some form of skills training programme. These initiatives were largely started in the 1980s to deal with the chronic youth employment problem in the region. In Jamaica, the best-known programme in this area is the Human Employment and Resources Training (HEART) and National Training Agency (NTA), which were established by the Government in 1982 and 1991 respectively (see Knight, 1992). Prior to 1982 when the HEART agency was formed, several initiatives were taken to provide unemployed youth with skills (National Youth Service, Industrial Training Centres, Youth and Community Training Centres, Youth Camps, Agricultural Skill Training Centres). HEART was established to finance, develop and monitor employment training schemes especially for young people and to assist in the placement of those seeking employment. The agency is funded via a 3 per cent payroll levy on all employers except 'small' firms and the Government, along with private donations. The HEART programme consists of a school leavers' on-the-job training opportunities programme, which allows school leavers with low levels of certification to be trained by private employers. In addition, there is a series of academies that provide a range of short courses especially for young people in rural areas. A Solidarity Programme has been designed to provide credit and training assistance for those involved in self-development projects.

In Trinidad and Tobago, the main programmes geared to unemployed youth are the Youth Training and Employment Partnership Programme (YTEPP) and Service Volunteered for All (SERVOL). The YTEPP started in 1988 by focusing on skills training and the attitudes and values of the youth. The programme provides basic remedial education, vocational skills training, career enhancement, work experience attachments and post-training support. Training programmes make use of community centres and facilities so that the youth

can easily get to the places of training delivery. The orientation of the YTEPP is based on the problems faced by youth when they are about to enter the labour market, namely, the lack of marketable and communication skills, proper work attitude and ethic, the lack of work experience and financial and technical supports. These factors make young school leavers largely unemployable for long periods of time.

SERVOL was started in 1970 as a small-scale community-based organisation (CBO). It has become a highly successful and dynamic organisation with projects in vocational training, small business, agriculture and an integrated educational development programme. It focuses on the attitudes and other personality problems of youth that affect their employability. Its adolescent training programme grew from 25 participants in 1971–72 to over 5,000 in 1996–97.

The Morvant-Laventille Improvement Organization (MLIO) is also a grassroots organization that was established in 1986. Its focus has been to provide young people in one of the most depressed areas of Trinidad and Tobago with skills training and attitude re-orientation. It links training with commercial activities in such areas as painting, woodwork and furniture making, shoemaking and leathercraft, welding and electronics.

Other countries of the region have various forms of skills training programmes, which seek to provide the young employed with the necessary marketable skills. In recent years, with greater attention being paid to poverty alleviation, the development of human capital – skills training and remedial education – has been viewed as a primary way to help with the problem of poverty and unemployment. In Guyana and Barbados, poverty alleviation programmes have important skills training components which help to develop the human capital base of the poor (for example, the Social Impact Amelioration Programme, SIAP, in Guyana and the Pineland Creative Workshop in Barbados). Jamaica has also sought to learn from the experience of other countries with similar skills training programmes. For example, in 1996, the HEART/NTA and the National Industrial Training Centre of Brazil (SENAI) joined forces to provide training beyond entry-level competence. Programmes have been designed to increase the efficiency and productivity of the Jamaican workforce through skills upgrading and other technical assistance interventions.

In order to assist with the entrepreneurial aspects of HRD, some governments have introduced special funding schemes. For example, in Barbados, a Youth Entrepreneurship Scheme (YES) has been established to assist young people who are interested in setting up a business. YES assists with the provision of financial and technical assistance and training. The Government of Barbados has also established agencies to provide funds to people desirous of setting up small businesses.

The final HRD initiative has been in the area of on-the-job training (OJT). Surveys of companies in the region indicate that this is the main form of train-

ing taking place within companies in the region. Apprenticeship programmes by various skills training agencies also constitute a form of OJT. The HEART/NTA's School leaving programme in Jamaica provides on-the-job training for its participants. The programme was in existence for the whole life of the HEART/NTA.

Various reports and papers have been prepared on technical and vocational education training programmes in the region (see Parris, 1998; Downes, 2000; Lochan, 2000; McArdle, 2006). These studies have focused on such programmes as HEART/NTA in Jamaica, SERVOL and YTEPP in Trinidad and Tobago and the Skills Training Programme in Barbados. These programmes have been partly successful in providing the labour force with skills that they can offer to employers. There are still problems on the demand side of the labour market as several Caribbean economies have experienced problems over the past decade.

While national training programmes are well known, little information exists on the extent to which firms are engaged in training. A few surveys do exist which provide some idea of the extent to which private firms promote the training of employees. A small-scale survey of training and development needs in Barbados in 2001 indicated that 74 per cent of respondents have training budgets and allocated about 5 per cent of their overall budget to training (see BEC, 2002).

Lower level employees in the clerical, technical and vocational categories tend to receive the bulk of the training, which combines on-the-job training and classroom instruction. In terms of future training needs, the study identified supervisory management, job skills, health and safety, performance appraisals and implementation of a productivity management system. An earlier study by Ashton et al (2001) also highlighted the relatively high percentage of companies with training budgets and the high use of on-the-job training. People management was perceived as an important area of future skills training.

In Jamaica, the Jamaica Employers' Federation (JEF) undertook a study of training in private companies (JEF, 2000). It found that 44 per cent of the responding companies had a training budget but many of them were unable to indicate the percentage of the overall budget attributable to training. As in Barbados, most of the training was on-the-job. Senior management received the largest share of the training budget, with many of them attending overseas courses. The Ministry of Labour and Social Security has been collecting information on the most frequently advertised jobs in the Jamaican labour market. The top five areas fall into managerial, teaching, marketing, customer service and accounting occupations. The vacancies reflect the range of occupational skill areas (highly skilled to semi-skilled). It is generally recognised that jobs requiring little or no skills are hardly advertised since the supply of such persons tend to outweigh the demand for such workers (labourers, agricul-



tural workers). With the expansion in the services sector in the region, there has been a corresponding increase in demand for workers in this sector.

In the case of Trinidad and Tobago, Grover et al (1998) identified several firms that provided training for their employees, especially technical and management training. Most of this training was undertaken in order to upgrade the skills of existing workers. However, they found that there were basic skill deficiencies among workers, namely, work ethic and attitude, and desired technical skills. The National Training Agency (NTA) in Trinidad and Tobago has been undertaking surveys of the training needs of employees in various sectors of the economy. A May–September 2001 survey indicated that job opportunities were available for graphic artists, book binders, sales personnel, nurses, hairdressers, administrative assistants, data entry clerks and sewing machine operators. These are basically mid- to low-level jobs. The recent expansion of the economy of Trinidad and Tobago has resulted in a shortage of workers in the construction industry (plumbers, masons, electricians).

In the OECS, the lack of critical skills has been a constraint on economic expansion and international competitiveness (World Bank, 2005). For example, in St Vincent and the Grenadines and Grenada, skill shortages have been identified in the technical/engineering and managerial areas. Chottepanda (2004) has also pointed to skill labour shortages in Guyana, which has experienced a high level of emigration of skilled labour over the past decade. Data on work permits granted by Caribbean governments during the 1990s reinforce the nature of skilled labour shortages (see Table 8). The main categories

**Table 8:** Work Permits for the 1990s by Occupation in Rank Order of Importance

<i>Country</i>	<i>Occupation</i>
Anguilla	Production/Construction/Transport; Service; Professional/Technical
Antigua/Barbuda	Maid/Housekeeper/Related Workers; Construction/mechanic/electrician; Clerk/assistant
Barbados	Legislative/Senior officials/Managers; professionals; technicians and associate professionals
Grenada	Technicians and associate professionals; legislators, senior officials and managers; service workers
Jamaica	Legislators/senior officials/managers; professionals, crafts and related trade workers
St Kitts and Nevis (1996)	Technicians/assistant professionals; legislative/senior officials; production/construction/transport
St Lucia (1994)	Teachers, managers, nurses
St Vincent	Technicians/associate (professionals, professionals, legislative, senior officials, managers
Trinidad/Tobago	Professionals, technicians and associate professionals, legislative, senior officials and managers

*Source:* ILO, Digest of Caribbean Labour Statistics

for which work permits were granted were in the managerial, technical and professional occupations. The CARICOM Recognition of Skills Certificate (CRSC) has now replaced a work permit for several categories of workers in the CARICOM region.

In a comprehensive analysis of training needs in the tourism sector of 25 Caribbean Tourism Organisation member states, it was found that the majority of the workers were skilled/semi-skilled and unskilled with the ratio of managers to non-managers being 1:10. While tourism operators experienced moderate to extreme difficulty in filling managerial and professional posts, there was no great difficulty filling posts for unskilled workers. The main general training needs in the sector were in the areas of customer relations, marketing and communications and computer literacy, while technical training needs were in the areas of culinary skills, tour guiding and maintenance. Most of the training in the sector is on-the-job and the majority of the training expenditure is spent on skilled/semi-skilled employees. Data on the percentage of the budget spent on training were unavailable, but it was observed that two-thirds of the respondents spent less than US\$5,000 on training of staff in 1997. This relatively low expenditure may reflect the high degree of turnover of staff that occurs in the sector. Respondents identified the main human resource challenges as quality of staff, staff motivation, work ethic and attitude.

The results of the earnings equations can be used to derive the rates of return to different levels of education and training. Using the extended Mincerian earnings equation discussed by Psacharopoulos and Ng (1992), the results for Barbados, Guyana, St Lucia, and Trinidad and Tobago, indicate that:

- the rates of return for tertiary and university education are higher than secondary level education
- professional and post-university education and training exhibit the highest rate of return
- the rates of return for females are generally higher than those for males, especially at the tertiary/university levels
- rates of return for vocational education/training are relatively high
- Trinidad and Tobago, and St Lucia are relatively high compared to Guyana
- The rates of return are comparable to those for other countries (see Psacharopoulos and Ng, 1992).

This overview of training and skill development in the Caribbean indicates that a lot more needs to be done to enhance the human capital base in the region. There are serious skill deficits in key sectors. Furthermore, information on training in organisations is difficult to obtain.

### ***3.2 The Mismatch Problem and the Transition from School to Work***

One of the main reasons for youth unemployment in particular, and unemployment in general, relates to the “mismatch problem”, that is, the difference between the distribution of job requirements or needs of employers and the distribution of knowledge and skills of the labour force. The high levels of youth unemployment, coupled with the high incidence of uncertificated workers, suggest a “mismatch problem” associated with a dysfunctional education system. Employers indicate that they find it difficult to recruit workers with appropriate work ethic, attitude, job/work experience and technical skills. Establishment surveys in Barbados and Jamaica, for example, indicate that a poor attitude to work and poor work ethic have been major concerns for employers. They indicate that these attitudes, along with basic education/knowledge/skills (reading, writing and mathematics) are critical to job hiring and trainability of employees.

Attempts have been made in recent years to study and resolve the ‘mismatch problem’ by examining the transition from school to work. In their study of Jamaica, Kerr et al (2006) found that 26 per cent of the youth (15–24 years of age) had gained work experience as part of their education and training and that 78 per cent planned to further their education in the future. Approximately 60 per cent of the out-of-school youth had no passes in academic examinations, with the vast majority being males. It was, however, recognised that post-secondary certification was important to finding a decent job. The main obstacles to finding a suitable job were unsuitable general education and training opportunities, lack of certification and unsuitable vocational education. Regression analysis pointed to the importance of certification and work experience in determining the employability of the youth. HEART Trust/NTA has implemented a school leavers’ training opportunities programme called the National Service for Industrial Learning, to bridge the gap between school and the world of work. The trainee is placed in a firm to gain on-the-job training and receives a small stipend during the training period. The trainee can earn the National Vocational Qualification of Jamaica (NVQ-J) on completion of the programme.

In a survey of youth in St Vincent and the Grenadines, Vermeersch (2006) found that students lacked knowledge of the skills required by the labour market and had little interaction with employers about the skills needed by firms. On-the-job training was very low in the country. Correlation analysis indicated that there was little correlation between the level of academic achievement (secondary school leaving performance) and labour market outcomes. In an assessment of the link between the education and training system and the labour market, the World Bank (2007) found serious deficiencies in the system in the OECS and called for more resources to address these problems (employment assistance and youth training programmes).

These results point to the need to re-examine the education system as it relates to the needs of the labour market in the Caribbean. As suggested earlier several proposals have been made regarding the new education and training arrangement in the Caribbean: separate the job training from secondary education; create TVET tracks in schools; enhance the academic content of the TVET programmes in schools and colleges or make TVET a post-secondary exercise with a strengthened academic programme in schools; involve the private sector in the planning of the educational system; and foster greater regional co-operation in TVET.

### **3.3 The Brain Drain Problem**

The Caribbean has historically been an area of migration – both immigration and emigration. Organised emigration has occurred to such countries as the UK, USA, Canada and Panama over the past century. Early emigration to these countries was a means of easing the high unemployment (surplus labour) problem in the region. People emigrated to more developed countries to work as domestics, nurses, teachers, construction workers, transport workers and other low and middle-skill level workers. Emigration can therefore be viewed as being beneficial to a country if the emigrants would otherwise be unemployed or working in low skill jobs. If the emigrants are members of the professional and skilled labour force, then a ‘brain drain’ occurs, which then results in lower overall productivity and reduced economic growth. There are several costs and benefits associated with the movement of people from one country to another (that is, emigration from the country of origin, immigration from the country of destination) (see Mishra, 2005). In relation to *the costs* of emigration to the country of origin, there are:

- the ‘emigration loss’, that is, the net welfare reduction associated with movement of infra-marginal workers who are paid less than their marginal product
- the public expenditure on the education and social welfare of the emigrants.

*The benefits* include:

- the inflow of remittances or other transfers from emigrants
- the possible network effects which can be a source of FDI and export marketing
- the enhancement of human capital.

The Caribbean has been an important source of migrant workers to more developed countries. It is estimated that between 1970 and 2003, 745,289 persons emigrated from Jamaica to the USA, UK and Canada, that is an average annual flow of 21,920 persons (PIOJ, 2005). The annual outflow however declined over the 1980 to 2003 period.

While emigrants from the Caribbean may constitute a small percentage of the work force of the destination countries, they represent a significant

**Table 9:** Percentage 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
St Lucia	3	2	32	33	36	25
St Vincent/Grenadines	6	3	53	50	57	42
Suriname	18	–	44	–	90	–
Trinidad and Tobago	6	3	21	17	78	68

Source: Mishra, 2005

proportion of the domestic labour market. Using population census data for 1990 and 2000, Docquier and Marfong (2004) estimated that about 12 per cent of the Caribbean labour force migrated to OECD countries. Given the relatively small labour market with heterogeneous skills, such a migration rate can have a serious impact on the labour markets in the region.

An analysis of migration by education levels indicate that those persons with tertiary level education constitute the highest percentage of migrants to OECD countries. The rates are similar to those in the USA (see Table 9). The high rates of migration for tertiary level educated people (ranging from 36 per cent in the Bahamas and St Lucia to 90 per cent in Suriname) represents a significant 'brain drain' problem in the region (see Mishra, 2005).

Guyana, Jamaica, Suriname, and Trinidad and Tobago have been the main countries affected by the high rates of migration of skilled labour to the OECD countries. Data for Jamaica indicate that the main groups which migrated to North America during the 2000–2003 period included professional/technical/administrative/managerial (30.8 per cent of all emigrant workers) and some workers including private household workers (47.6 per cent) (PIO, 2005).

The Caribbean region has, however, received an income flow from the emigrants in the form of remittances and other transfers. These income flows represent non-wage income, which can affect the supply of labour. Econometric research on the participation decision and unemployment for selected countries suggests that remittances to a household can lead to the decision not to participate in the labour market and to people remaining unemployed (Downes, 2004, Kim, 2007 and Bussolo and Medvedev, 2007).

In recent years, Caribbean teachers and nurses have sought to benefit from the shortage of such workers in more developed countries. This has resulted in a shortfall in these workers (especially nurses) in the region. Some countries have sought to recruit nurses from outside the region (Asia and Africa) to meet the shortfall.

Intra-regional migration, especially from Guyana, has been a prominent feature in recent years. Workers from Guyana have moved, as temporary workers in the construction and agricultural sectors, to other Caribbean countries. These workers have been largely semi-skilled and do not fall within the categories of workers who are allowed to 'move freely' within the CARICOM region. This free movement of labour is currently limited to university graduates, media workers, cultural workers and workers associated with the rights of establishment of businesses in other CARICOM countries. The region, however, still depends on non-CARICOM countries for workers in the professional, technical and managerial areas.

#### **4. LABOUR MARKET AND HRD POLICIES**

The main challenges facing the Caribbean labour markets have been targets of government policies and programmes for several decades. More data have been collected and research undertaken to fine-tune policy measures aimed at overcoming these challenges. The changes in the national, regional and international economies with respect to the implementation of structural adjustment programmes, the forging of greater regional integration, the liberalisation of international trade, the erosions of preferences and the various facets of the globalisation process have exacerbated the challenges facing the Caribbean region. Although policy measures and programmes would be needed to address the problems facing the labour market directly, action would also be needed in other markets and in the general environment within which business activity takes place (for example, the commodity and financial market, the institutions of economic governance).

The main objective of labour market policy reform in the region has been to create a dynamic labour market that can foster productivity and promote flexibility while providing effective social safety nets and increasing real incomes for workers. Since labour is an integral input into the production process, then for small developing countries like those in the Caribbean, the development of the human resources of the countries becomes a vital element in enhancing overall productivity and international competitiveness. Improving the quality of the human resources of the region would require investment in education, training, health and nutrition. Changes in the nature of the demand for goods and services in the domestic and export markets would require changes in the quantity and quality of the human resources, which make labour market flexibility an important policy objective. Since it takes time to

educate and train people, then human resource planning is a critical exercise in various enterprises.

For a significant majority of the people in the Caribbean, the labour market provides the only source of income, that is, labour/wage income is a significant percentage of total income. The inability to sell labour services creates a problem of poverty and deprivation unless social safety nets exist. The labour market therefore becomes an important source of funds for these safety nets (for example, unemployment insurance, severance/redundancy pay, national insurance payments, remittances from workers abroad, income from other family members). As the empirical evidence suggests, increased earnings are associated with increased productivity, better education and training and greater competitiveness.

Labour market flexibility in the Caribbean tends to be higher than in Latin American countries, but lower than in non-Caribbean micro states. It has been argued that some degree of labour market flexibility is needed in the region in order to attract more foreign investment and increase employment (see Archibald et al, 2005). The nature of such changes would include reducing the difficulty of firing and the rigidity of working hours (that is, reducing severance payment and national insurance payments, introducing a more flexible work week). While these changes would lower the adjustment costs of employment for the employer, they should be balanced by social schemes that assist workers with short-term unemployment (unemployment insurance) and retooling for new jobs (training grants). Greater labour market flexibility should therefore be combined with some degree of social protection in order to smooth the transition processes on both sides of the labour market when shocks occur (that is, what is now termed flexicurity).

Labour market policies to address the main challenges of youth unemployment, the mismatch problem, job creation, emigration of skilled labour and low levels of productivity require measures on both the demand and supply sides of the market, and also in the areas of remuneration and labour market institutions. These policy measures should be developed in an integrated and holistic manner since the main challenges facing the region are inter-related. As indicated earlier, Caribbean governments and other labour market stakeholders have been implementing labour market policies to address various challenges over the years. Since these challenges still remain, it means that either they have been difficult to surmount, the policies have been implemented in a piecemeal manner, the measures have been too costly, the nature of the challenges has changed or the measures have been inadequate or inappropriate.

The range of policy measures presented in this study has been developed from previous studies of Caribbean labour markets and interviews with key informants of labour market behaviour. They attempt to address the challenges both directly and indirectly since these challenges are seen as inter-related.

The *first* of the policy measures aimed at meeting the challenges of the labour market in the region is the restructuring and refocusing the system of education and training. A dysfunctional educational system and inadequate training facilities lay at the heart of the youth unemployment, 'mismatch', 'brain drain' and low productivity problems. The issue of educational reform has been prominent in the region over the past decade. For example, Barbados has introduced an educational improvement programme (Edutech), while the OECS has recently completed the early phases of an education reform project. The Jamaican government has begun to implement the recommendation of a national task force on education.

The restructuring of the educational system – from primary to tertiary – must ensure that graduates have the competencies to operate effectively in the labour market both as employees as well as self-employed people. Universal secondary level education should form the basic minimum level requirement for the Caribbean region. Recent research by Lee and Temesgen (2005) indicates that access to education to at least (or even better than) secondary level is an important determinant for the growth of firms and hence long-term employment. While universal secondary level education is a primary goal, a co-primary goal is enhancing the quality of the output of the educational system (better certification, appropriate competencies and psychological skills). Improving the quality of the graduates of the school system, so that they can properly interface with the labour market would require improving the inputs of the educational system (teacher training, stronger parent-teacher associations, supplies and equipment, private sector participation). Graduates must leave the secondary school system with a high degree of literacy (writing, reading and computer skills) and numeracy in order to meet the demands of a dynamic labour market.

The training system should reinforce knowledge and competencies of the educational system. A much greater interface would be needed with employers who can support apprenticeship programmes, work experience study, and related programmes. HEART/NTA in Jamaica, the TVETT Council in Barbados and COSTAAT in Trinidad and Tobago are examples that can be repeated in other countries. However, these institutions need to be strengthened and properly funded in order to cater to the technical and vocational training needs of the region. The certification of the work force in various technical and vocational areas (for example, NVQs) at an international level would be critical to the enhancement of the international competitiveness of Caribbean human resources as well as goods and services.

The restructuring of the educational system should be accompanied by greater counselling and career guidance for students; more extra- or co-curriculum activities to build the 'soft skills' of inter-personal relationship, conflict management, work ethic and time management, mentoring and entrepreneurship. Such measures would allow for better job fitting – the output of the education and training system and the needs of the workplace. Educational



planning and labour market planning should be more integrated so that the transition process from school to work is efficient and effective.

A *second* policy area relates to measures to boost productivity in the workplace. The establishment of well-functioning productivity centres involving the stakeholders in the labour market should be a high priority for the Caribbean. Barbados has a Productivity Council which has been operational since 1993 and Jamaica has recently established a Productivity Centre. Such institutions would develop systems and programmes to promote productivity in the workplace – that is, reorganisation or retro-fitting of plant layout, gainsharing schemes, human resource (including management) training, and operations management systems, among other measures. As a tripartite national body, the council would recommend policies to deal with the external barriers to productivity growth such as investment incentives, infrastructural problems and bureaucratic systems. The results of the Promotion of Management-Labour Co-operation (PROMALCO) project organised by the ILO (Caribbean Office) would be useful in improving labour-management relations in the workplace (see Imoisili and Henry, 2001). National and sectoral memoranda of understanding (MOUs), as implemented in Barbados and Jamaica, would further the productivity drive once they are well known to workers and managers in various enterprises. One of the problems with such MOUs is that their contents are not well known to workers and managers who have to work with them.

The *third* policy is related to the development of an employment creation programme based on a national production programme. On the demand side, the labour market needs to be enhanced through a comprehensive production programme geared for the export market. As small developing countries that have historically depended on agricultural products for their survival, Caribbean countries have to develop alternative areas of production, as these traditional products are now ‘sunset industries’. Some Caribbean countries have sought to promote the development of new, sunrise industries in the services and technologically based sectors. These industries would require new human resource needs supplied by a restructured and refocused educational and training system. Caribbean countries need to take maximum advantage of the international trade negotiations in order to develop niches for the sunrise industries. In addition, pan-Caribbean region companies can form the platform for a greater push in the international market. National development plans and strategies now being formulated in the region (Vision 2020 in Trinidad and Tobago, Barbados Strategic Development Plan 2005–2025, OECS Development Charter and Strategy, Vision 2030 in Jamaica) must ensure that production and human resource plans are integrated at the operational level of implementation so that educated and trained people are readily absorbed into the labour market. An emphasis should be placed on high value-added jobs which would use the expertise of the supply side of the market and partly stem the brain drain.

Innovative ways must be developed to generate productive and decent work in the region. Small- and medium-sized enterprises provide some potential for job creation provided the environment within which they operate is enhanced. Attention needs to be paid to the financing and technical needs of such enterprises. Laws relating to the bankruptcy of firms and loan collateral arrangements would have to be revised in order to give these enterprises an opportunity to expand or recover from losses. Several countries have been examining the needs of these enterprises, but in a piecemeal fashion. There is also potential for entrepreneurial growth in enterprises that interface between the services sector and the agricultural and manufacturing sectors. While a lot of emphasis has been placed on the services sector in the region (e.g., tourism, financial and business, data processing), there is need for greater linkages with the agricultural and manufacturing sectors. The discussion on 'special and differential treatment' for small economies in various trade negotiations and economic partnership agreements should provide for such economies to restructure their sunset industries. For example, Barbados is considering a focus on developing a *sugar cane* industry rather than the traditional focus on the *sugar* industry.

The formation of pan-Caribbean enterprises within the context of the CARICOM Single Market and Economy should allow such enterprises to explore markets in the Caribbean Diaspora in North America and Europe and also non-traditional markets in Latin America and Africa. Given the relatively small size of the regional economy, a 'small' increase in exports in the international market can result in a significant increase in employment.

Some attention would also have to be paid to creating the environment for greater foreign direct investment to supplement regional financial resources and also to effectively penetrate international markets. Caribbean countries would need to address their physical infrastructure (public utilities, roads, and ports), regulatory systems and macroeconomic policies in order to attract greater investment to the region (Kolstad and Villanger, 2004).

A *fourth* policy area relates to the strengthening of the dialogue among the Social Partners (government, labour unions and employers). Such dialogue would provide the overall macroeconomic framework to achieve the objective of labour market policy reform. Several attempts have been made to establish well-functioning social partnerships in the region. The arrangement in Barbados has been the only one functioning at a satisfactory level. Such arrangements have been beset by distrust, which must be overcome in order to enhance the operations of the labour market. Those partnerships must be accompanied by well-functioning agencies such as Ministries of Labour and Economic Affairs, which need to be staffed by people with specialist skills. It has been argued that such agencies – government, employer and union – should be more strategic, proactive and global in outlook. The dialogue and agreement among the social partners would hopefully result in a less adversarial industrial relations climate, a focus on productivity growth, productive,

remunerative and decent work and greater opportunities for human resource development.

The *fifth* policy area relates to the revision of labour laws and work practices to reflect the changes in the commodity and labour market. Very few changes have been made in the labour laws over the past decade. Most of the amendments have been undertaken to accommodate administrative requirements. In many cases, labour practices, as determined by the collective bargaining process or internal labour market rules and regulations, have guided the operations of the labour market. With the advent of labour mobility within the context of the CARICOM Single Market and Economy (CSME), there will be a need to modernise and harmonise labour laws in the region. Changes should be made to reduce the non-wage labour costs associated with the employment of people, while protecting the rights and social welfare of workers.

One area of concern in the region is the costs of adjustment with respect to employment. Several countries have severance payment or redundancy laws that compensate the employee when he/she is severed or made redundant. Employers are usually required to contribute to a fund so that enough financial resources are available to compensate severed employees. These payments are contingent upon employment separation and therefore represent a pool of funds that can be used to finance the operations of an enterprise. Employers have been seeking to reduce their contributions, especially where these contributions are significant. Any reduction in the contribution would mean that either the sum paid to the employee or the period for payment would have to be reduced. A decision on this matter would depend on the rapidity with which an individual can find employment. In Barbados, a severance payment scheme co-exists with an unemployment insurance scheme and hence a severed worker can 'double dip'. This arrangement would need to be rationalised in order to reduce the non-wage labour costs to employers (see Downes, 2004).

Another area of topical discussion is the institution of either a national or sectoral minimum wage system. Several countries in the region have either a national minimum wage (Jamaica, Trinidad and Tobago) or sectoral/occupational minimum wages (Barbados, Guyana, and Antigua). With the formation of the CSME and the institution of 'free labour mobility' within the region, labour unions have argued for (sectoral) minimum wages in order to prevent the exploitation of labour.

The *sixth* labour market policy area relates to the development of measures to stem or take advantage of the 'brain drain'. Jamaica has proposed the establishment of a Diasporic Institute to examine ways in which people in the Diaspora can assist with the development of Jamaica. In the same way that some Caribbean governments have established special arrangements to help with the return to migrants to the region, similar arrangements should be developed to take advantage of the human capital services outside of the region. Some of the policy issues would involve maximising the benefits of

remittances to the country; training people as part of the export of services (for example, Mode 4 trade in services), investment and marketing prospects of the Diaspora, joint services provision – in the destination country and the Caribbean and creating externalities and networks in the destination countries.

A *final* area of policy is the development of labour market information systems (LMIS) in order to supply information on labour market needs, outcomes and behaviours. All the countries in the Caribbean are lacking in this area and there is a need for urgent action to redress this problem. The recent work on the Caribbean LMIS can form the basis of the development of national and regional labour market databases.

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