

# Intra-Regional Migration and Sustainable Development: A Study of Four Caribbean Countries

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## INTRODUCTION

This paper aims to inform the regional debate on intra-regional migration and its implications for development, specifically labor markets and socio-economic and demographic changes in the Caribbean region. It explores migratory patterns in the region with specific focus on the immigration dynamics in Antigua and Barbuda, The Bahamas, Barbados and Trinidad and Tobago. A distinction is made between lifetime immigrants, immigrants that moved prior to 1990 (previous immigrants) and immigrants that moved between 1990 and 2000/2001 (recent immigrants). The paper compares the socio-demographic characteristics of recent and past immigrants as well as examines the economic activities of the foreign-born in the receiving economy among both sets of immigrants. A comparison is made between the immigrant population and the local-born population in terms of socio-demographic characteristics. An important contribution of the paper is situating the study within the context of the socio-economic developments within the region.

Within the Caribbean region, there has been a growing discourse on migration and developmental impacts, characterized by mixed perceptions. Empirical evidence can support both sides on intra-Caribbean migration and development implications and therefore the debate should focus on sustainable migration whereby both sending and receiving countries and the migrants themselves can optimize benefits while minimizing the negative outcomes of migration. Migration must be recognized as an inevitable and

indispensable feature of globalization whereby the increased interdependence of states and current labor market conditions foster migration. This is epitomized in the Caribbean region where, in response to labor market conditions, among other economic, social, demographic and political factors at origin and destination countries, persons are pushed or pulled towards a better way of living.

As the region moves towards the establishment of a Caribbean Community (CARICOM) Single Market and Economy (SME), not only has the migration debate been polarized, but it has also been lopsided with the focus tending to be mainly on the free movement of labor. Central to this free movement debate is the need to compete in a regional skills market to remain economically competitive in the global market, the need for outsourcing labor to meet labor shortages, and migration implications for socio-demographic and developmental changes. This imbalance in the debate fails to recognize the dynamism involved in Caribbean migration—in spite of Caribbean movement being predominantly labor driven as is well documented in the literature. It is not just labor movements that can impact on labor markets or on the social and economic institutions or on development per se; there are student movers who may move on to take up jobs in the destination countries, there are children and other family members who move with their families or join them later, there are retirees who take up permanent residence in the countries of destination, among other scenarios.

Population movements impact both sending and receiving countries. The migration debate in the region therefore needs to be expanded to allow for a more holistic approach particularly in assessing economic and development impacts and in the formulation of sustainable migration policies. This requires including in the migration debate, a judicious mix of types of movement (free movement of labor or otherwise) and factors affecting movement (social, economic, political, demographic or other) at sending and receiving countries as well as among the migrants themselves. Added to this, if we are to formulate knowledge based policies, it is indispensable focus be placed on migration in general as there is currently little empirical evidence on free movement.

Migration is not a new phenomenon in the Caribbean region predating the trans-Atlantic slave trade. From the initiation of the transatlantic slave trade to indentureship,

Caribbean history is one grounded in migration. While a number of positive outcomes are associated with migration processes, movements can be unsustainable if relevant policies, regulations and controls are not put in place. Against this background, the commitment to establishing the Caribbean Community Single Market Economy (CSME) as an effective economic strategy has generated concerns with respect to migration flows. Paramount to the creation of the CSME is the guarantee by the Revised Treaty of the Community rights of the free movement of skilled Community nationals, the freedom to provide services and the right of establishment of businesses and the free movement of capital. These freedoms in effect promote increased flows of goods, capital and people across national borders. The implementation of the CSME has generated some degree of anxiety about the potential negative impacts of population mobility. As an example, Haitians require a visa to travel to other CARICOM member state countries because of the fear of an influx of Haitians under free movement. The Bahamas has entered a reservation to the free movement clauses in the Revised Treaty among others, because of immigration fears. More recently, there has been an increased requirement for Jamaicans to obtain visas for the purpose of intra-Caribbean travel. Additionally, some CARICOM Member States, principally, Barbados and Antigua and Barbuda have been deporting illegal Caribbean Community nationals.

Despite some negative impacts, migration has numerous benefits and is a significant contribution to Caribbean development. The findings emanating from this paper will contribute to the existing literature and to the migration debates. The findings will also help to guide the development of knowledge-based strategies and inform policy on sustainable immigration reforms.

## **OBJECTIVES OF THE STUDY**

This study aims to provide information on the following:

1. The main countries of destination of the immigrants
2. The main countries of origin of the immigrants
3. The socio-demographic characteristics of the immigrants

4. The main socio-demographic differentials between immigrants and local-born population
5. The main socio-demographic differentials between immigrants arriving before 1990/91 and those who arrived between 1990/1991 and 2000/2001

## **DATA AND METHODOLOGY**

The Gross National Product (GNP) per capita (Table 1 below) of fourteen English-speaking Caribbean countries and the literature on migration were used for selecting the countries included in the study. An examination of GNP per capita allowed for the determination of which countries represent high, medium/low income economies with the aim being to choose a representative sample of countries in terms of level of development. However, consideration was given to the fact that the immigrant stock is insignificant in some countries based on the review of the literature. Therefore, countries were chosen both based on GNP per capita as well as based on their significance with regard to migration stock found in the review of the literature. On this basis, Antigua and Barbuda, The Bahamas, Barbados, and Trinidad and Tobago were chosen for study.

The 2000/2001 National Population and Housing Censuses for the four countries were used as the primary data source for this study. The census questionnaires, with the exception of The Bahamas, include a birthplace and residence section. The place of birth was used to determine whether or not migration had taken place; whereas, citizenship was used in the case of The Bahamas. One was said to have migrated if he/she lived in a country outside of where he/she was born, irrespective of how long he/she had been living in that other country. The adult population, 15 years or older, was used.

**Table 1: Per capita Gross National Product at market prices 2000**

COUNTRIES	\$EC	RANKING
<b>CARICOM</b>	<b>11903.6</b>	
The BAHAMAS	48178.5	1*
<b>CARIBBEAN COMMON</b>	<b>10122.8</b>	
<b>MDCs</b>	<b>9989.3</b>	
BARBADOS	24746.2	2*
GUYANA	2356.4	14
JAMAICA	8163.4	11
SURINAME	4401.3	13
TRINIDAD AND TOBAGO	17332.6	6*
<b>LDCs</b>	<b>11007.7</b>	
BELIZE	8303.4	10
<b>OECS</b>	<b>12211</b>	
ANTIGUA AND BARBUDA	23179.2	3*
DOMINICA	8751.4	9
GRENADA	10044	8
MONTSERRAT	22481.2	4
ST. KITTS AND NEVIS	18235.6	5
SAINT LUCIA	11457.6	7
ST. VINCENT AND THE	7614.7	12

Source: CARICOM Secretariat Database (Accessed December 2008) \*Countries reflected for Study

## DATA TRANSFORMATION

Independent variables used for this analysis were age, sex, education, employment status, marital status and occupation. Dependent variables were period of arrival<sup>1</sup> and migration status. The dataset was filtered to select only persons who were fifteen years or older. The interval level variable age was recoded into an ordinal level variable with five categories which was used in the bivariate analyses while the interval level variable was used in the multivariate analyses. The variable education was also recoded into a variable with three categories; primary level or below, secondary level and tertiary level. Marital status was recorded into four categories: married/common-law, never married, widowed/divorced/legally separated, and not in a union. Occupation was recorded into a variable with five categories namely, professionals/legislators/technicians, clerical/sales and services, agriculture, craft and related trade, workers/plant and machine operators and assemblers, and elementary positions. Period of arrival was recoded from the variable measuring year when one came to a country to live. It was recoded into two

<sup>1</sup> This was broken down into previous migrants those who moved before 1990 and recent immigrants (those who moved between 1990 and 2000).

categories of before 1990 and between 1990 and 2000. Migration was recoded into immigrants and local-born from the variable on country of birth in all countries except The Bahamas, and the variable on country of citizenship in the case of The Bahamas.

## **MOVEMENT AND MIGRANT CHARACTERISTICS IN THE REGION**

The existing literature suggests that people move for a number of different reasons which include, but is not limited to, the search for a better life. UNECLAC (2006) suggests that this search for a better life for a number of Caribbean nationals usually begins within the region. It is suggested in the literature that Barbados, Trinidad and Tobago, Antigua and Barbuda, and the United States Virgin Islands attract the greatest proportions of intra-regional immigrants while the main sending countries appear to be Guyana, St. Vincent and the Grenadines, and Grenada. A UNECLAC (2006) publication estimates that the absolute number of intra-Caribbean migrants over the last two-decades has steadily increased. The data provided indicate that approximately 3 percent of Caribbean population can be considered as immigrants but this proportion varies widely from country to country (UNECLAC, 2006). Further, Cholewinski et al. (2007) posit that, based on the census data of 1990/1991, the number of intra-CARICOM migrants stood at 105,000 which is equivalent to 2 percent of the total CARICOM population excluding Haiti.

An earlier United Nations publication (2002, 244) claims that “in 1990, over half of the Caribbean immigrants came from that sub-region, and the proportion was even greater in the case of Trinidad and Tobago, the United States Virgin Islands, and Barbados.” Further, it notes that Trinidad and Tobago and Barbados are among the main countries of destination for intra-regional mobility. Cholewinski et al. (2007) report that over one-third of the intra-Caribbean migrant population resides in Trinidad and Tobago and 12 percent in Barbados, with the main source countries being Grenada (18 percent), St. Vincent and the Grenadines (17 percent) and Guyana (13 percent). A United Nations (2002) study indicates that, in Grenada and Saint Vincent and the Grenadines, between one-sixth and one-fifth of the population has emigrated elsewhere in the region.

## **INTRAREGIONAL MIGRATION AND SEX**

Intraregional mobility in the Caribbean is a factor more likely affecting women than men. A United Nations study (2004) indicates one of the outstanding features of intraregional mobility in the Caribbean is the high proportion of women who are participating in it. The study postulates the causal mechanism behind such fact is evident in labor market theories explaining migration as well as social network theories. Further, Palmer (1990) in a study focusing on Caribbean migration to the United States based on data from the US 1980 decennial census found that within the English speaking Caribbean, women are more likely than men to migrate. This study used four countries: Barbados, Guyana, Jamaica, and Trinidad and Tobago. The study found that in 1980, female immigrants outnumbered male immigrants from all the countries with sex ratios of 83.7, 86.6, 79.7 and 82.3 respectively. GoPaul-McNicol (1993) has substantiated the claim that migrants are more likely to be females than males arguing that West Indian migrants were traditionally more likely young males, but since 1960 that changed showing more female than male migrants. This the study attributes to the types of jobs that are available which are more female-oriented such as domestic helpers. A study by Chaney (1985) found in the review of the literature that prior to 1950, Caribbean migrants were predominantly men but this changed around the 1960's. Chaney cites examples of the 1970s where 54.4 percent of migrants from Jamaica were females, from Grenada 51 percent, and from Trinidad and Tobago 55.6 percent.

## **INTRAREGIONAL MIGRATION AND AGE**

The literature shows younger persons are more likely than older persons to migrate. Thomas-Hope (as cited in United Nations, 2001) has indicated Caribbean migrants are usually within the 25-29 years age group. The study postulates the stock of Caribbean immigrants in Canada based on 1981 data revealed there was a high concentration of persons within this age group. Of the total Jamaican immigrant population in Canada at this time 59.3 percent were in the 25-29 years age group, Trinidad and Tobago 67.8 percent, Barbados 74 percent, and Haiti 64.2 percent. That migrants are more likely to

be younger than older is also reported in another study, which showed migrants to the United States were more likely to be between 25 and 29 years old (GoPaul-McNicol, 1993). Chaney states most sources agree migrants are usually between the ages of 20 and 34 years of age (Chaney, 1985). Duany (1994) found between a third and three-fifths of Caribbean immigrants to the USA in 1980 were between 20 and 39 years of age. Finally, Mills (2004) using the 1990/91 census data found in Antigua and Barbuda, 52 percent of lifetime immigrants were in the prime migrant age groups between 20 and 44 compared with 39 percent of the local-born population.

### **INTRAREGIONAL MIGRATION AND EDUCATION**

The literature has affirmed it is the most qualified persons who participate in intraregional migration. Studies on migration within the Caribbean indicate that education has a significant positive effect on the likelihood of migrating to other countries. Fajnzylber and Lopez (2008), with reference to a study which examined the education profile of migrants from Mexico, Central America, and the Caribbean to the United States in the 1990s, found that persons from the Caribbean with secondary education were more likely to migrate than those with primary education with percentages of 53 and 34 respectively. Additionally, Thomas-Hope (as cited in United Nations, 2001) has indicated that there is generally a high level of education among Caribbean migrants to the United States. Thomas-Hope points out that in 1990, 60.8 percent of migrants from the British Commonwealth Caribbean had been to a tertiary level institution while 25.2 percent had up to secondary level. Additionally, 41.8 percent of Dominicans had completed up to 12 years of schooling. Further, Mills (2004) also showed that 33 percent of non-nationals in Antigua and Barbuda had secondary level education compared with 30 percent of the local-born population and 9.3 percent of non-nationals with tertiary level education compared with only 2 percent of local-born. In Montserrat, the percentages were 36 compared with 26 for non-nationals and local-born respectively in the secondary level of education while the respective percentages at the tertiary level were 12 and 2.



## **INTRAREGIONAL MIGRATION AND MARITAL STATUS**

A number of studies have shown that migrants are more likely to be married. One study indicated approximately 50.5 per cent of English-speaking Caribbean migrants to the United States are married. (GoPaul-McNicol, 1993) Mills (2004) reports a higher occurrence of married persons in the foreign-born population than the local-born.

## **INTRAREGIONAL MIGRATION AND OCCUPATION**

The literature shows no consistent patterns as to which occupation migrants are more likely to engage. A review of the literature suggests it is dependent on the country of destination and its economic circumstances. Despite the inconsistencies however, it appears, for the most part, migrants are more likely to be in the craft and related occupations, services and sales and elementary positions based on data from the 1990/1991 census. In Antigua, Montserrat, and the British Virgin Islands, craft and related jobs were the occupations most dominated by migrants with percentages of 24.1, 31.0 and 24.1 respectively. In Barbados, The Bahamas, and Trinidad and Tobago migrants are more likely to occupy elementary positions with percentages of 17.8, 32.8, and 29.0 respectively. In the United States Virgin Islands, 37.2 percent of migrants had occupations related to sales and services (Mills, 2004). Thomas-Hope (2001) in her study reveals, in The Bahamas and the British Virgin Islands, immigrants were more likely to be involved in unskilled work. She further points out the second most significant category was professionals followed by craft and service activities.

## **INTRAREGIONAL MIGRATION AND EMPLOYMENT STATUS**

Most studies indicate migrants are more likely to be employed than unemployed. This is due to the fact jobs are usually the major incentive as to why people move in the first place. One study (Mills, 2004) shows in Antigua and Barbuda in 1991, 66.5 percent of migrants were employed and 4.3 percent unemployed. According to Pienkos (2006), in a study on Caribbean labor migration, the rationale is that migrants more often than not,

move to another country for economic reasons “and therefore the proportion of migrants who are participating in the labour force and who are economically active can generally be expected to be higher than the proportion of nationals.” Mills also argues it is expected greater proportions of immigrants than local-born would be employed for three main reasons. First, immigrants who go in search for jobs push themselves to succeed for personal reasons. Second, immigrants accept jobs they would not normally do in their home countries. Third, the laws in some countries require immigrants unemployed for a certain period of time should be returned to their home countries.

## **THEORETICAL FRAMEWORK**

In analyzing patterns of migration within the region, we employ migration system theory and Lee’s theory on migration, itself an extension of Ravenstein’s laws of migration. Migration system approach is based on the concept of a migration system in which there is a core receiving region of one or more countries and a set of specific sending countries linked to the core countries through immigrant flows and counter-flows. Lee (1969) argues for every major migration stream, a counter stream develops and which can be very advantageous to the country of origin. Usually this advantage is seen in remittances sent back home to the country of origin but also immigrants, after honing certain skills in the destination countries, may return home and improve the labor force at origin. Kritz and Zlotnik (1992) argue the system is a dynamic one which evolved from linkages between the sending and receiving countries in the form of political, economic, social, demographic as well as other factors.

Lee has hypothesized four main factors drive the migration process. These are: positive and negative factors associated with sending and receiving areas, intervening obstacles such as geographical barriers, distance and laws, and personal factors. He further argues positive factors associated with the sending area and negative factors associated with the receiving areas as well as obstacles discourage migration. Negative factors at the sending countries and positive factors at the receiving countries encourage migration. While this migration hypothesis is criticized for being too general,

Lee has clarified his arguments by noting some factors affect people in the same way while others affect different people in different ways. Positive and negative factors at the origin and destination countries are defined differently for each migrant. Notwithstanding these observations, there are classes of people who respond in similar ways to the same general factors at both sending and receiving countries which leads to Lee's hypotheses on the characteristics of migrants. These hypotheses were considered in this study and additional information on these can be found in Lee (1969).

## **SOCIO-ECONOMIC DEVELOPMENTS**

To effectively understand and interpret findings of this study, it is necessary to situate them in the context of the socio-economic background and development of the region in general and in particular the specific countries studied. If we find differing patterns in terms of the immigrant population over time in different countries, we can attribute these differences to development in the countries, as from extant research it is advanced that people tend to move in response to social, economic, political and other factors.

It can be argued a common discussion of Caribbean development may be too simplistic because of disparities within the islands in terms of population sizes, geography, economy, social as well as political factors. While this is correct in many respects, these countries are linked in historical, colonial and cultural consciousness. Political and economic reforms have shaped and transformed all the countries from a plantation society when sugar was supreme, to a new reorientation of the economies. Following the economic crisis of the 1980s, Caribbean countries embarked on new development policies. Of major importance were structural adjustment policies which opened up protected economies to the world market resulting in a shift from inward- to export-oriented policies. These policies had implications for jobs and wages with countries like Guyana, Jamaica, and Trinidad and Tobago responding to macroeconomic problems by adopting structural adjustment policies. On the other hand, countries like Antigua and Barbuda, Dominica, Barbados, and Grenada responded to balance of payment challenges with a combination of structural adjustment and fiscal policies. The debt crisis, policies of structural adjustment and free market reform were

all factors that altered the structure of opportunity within the region and acted as a catalyst for the patterns and exodus of persons, be it intra-regional or extra-regional.

The economy of Antigua and Barbuda was dominated by sugar during colonial times but when sugar prices plummeted around the 1950s the economy was severely affected up to about the 1960s. The government attempted to save the sugar industries but this was unsustainable and by 1971 closure was inevitable. Diversification of the agricultural sector proved futile. The deterioration of the sugar industry however was paralleled with development in the tourism sector around the 1960s. This success had multiple effects in the construction industry. The development of tourism resulted in increased wages and a movement of labor into service related jobs including also the construction sector. The manufacturing sector, though to a lesser extent, also thrived until the oil crisis of the 1970s. By the 1980s, through government interventions the tourism sector expanded rapidly (Antigua and Barbuda, 2000). Up to late 1990s, tourism and construction continued to be the main engines of growth in the economy.

The Bahamas, with a very successful economic story, was once a colony with an economy propelled by sugar. By the end of the Second World War however, the archipelago reformed its political system and by the mid-1980s was classified as an upper middle-income society benefitting from tourism as the main engine of economic activity and growth. The government has embarked on diversification plans to lessen dependence on tourism to include the agriculture and industrial sectors, however, tourism continues to propel the economy. The country was affected by the economic crisis of the 1980s which saw the closing of a number of major industries like steel and oil refineries, coupled with high levels of unemployment. By late 1980s however, the tourism industry improved and up to the 1990s, continued to be the most dominant sector in that country. (Meditz and Hanraty, 1987).

The Barbados economy was also once dominated by sugar. Agriculture continued to propel the economy following emancipation; however, the 1950s marked a turning point in economic development. Through diversification and structural change and the development of tourism and the manufacturing sector, the economy was transformed. Tourism became a leading economic sector in that country by the 1960s with spinoffs in

construction (Howard, 2006). By the 1970s, there was also exceptional growth in manufacturing, while agriculture plummeted. Affected by harsh economic times in the early 1980s, by 1986 the economy started recovering but the manufacturing sector failed to recover from the recession of the late 1980s. In the 1990s the country went into a recession and had to go through an adjustment program. This led to growth in the economy by 1993 resulting in improvements in tourism and the construction sectors.

Trinidad and Tobago's economic development following emancipation is largely shaped by petroleum representing a shift from agriculture (mainly sugar) during colonial times. Following the end of the Second World War, the economy experienced two great boom periods during the 1950s and 1970s followed by slow or negative economic growth. The economic structure of the post-war era was shaped by thriving petroleum, construction and manufacturing sectors paralleled by a decline in agriculture. These sectors created numerous jobs and provided high wages. By the 1960s economic growth declined due to weakening oil prices worldwide but by the 1970s, there was another oil boom and the economy recovered with the petroleum sector accounting for 48 percent of total domestic production by 1975 (Downes, 1998). By late 1980, the country went into a recession and the government then undertook an adjustment program through stabilization and structural reforms. Between 1982 and 1986, a multi-sector plan to reduce the dependence of the economy on the petroleum industry was introduced. By 1993, the economy showed moderate growth following efforts of the government to reduce dependency on the petroleum sector and the encouragement of foreign direct investments in the country (Downes, 1998). The services sector also improved accounting for over 50 percent of GDP in 1995 (Bissessar and Hosein, n.d.).

## **FLOWS OF IMMIGRANTS**

Immigrant flows reflect, to a large extent, development within both receiving and sending countries. The total inflow of immigrants over the two periods showed differing patterns in the four countries. The inflows to Trinidad and Tobago virtually dried up over the two periods with 26,070 immigrants before 1990 and a mere 2,261 between 1990 and 2000. In the case of Barbados, there was a significant decrease from 9,143 before

1990 to 3,535 between 1990 and 2000. The inflow to The Bahamas remained relatively the same with 8,056 before 1990, and 7,682 between 1990 and 2000. The inflows to Antigua and Barbuda on the other hand increased by over 100 percent from 3,465 persons before 1990 to 7,416 persons between 1990 and 2000. With respect to flows by nationality, Jamaica was the only country to exhibit an increase in the number of immigrants into these four countries. Before 1990 there were 2,176 immigrants from Jamaica, but by the second period this had more than doubled to a total of 4,153. The number of immigrants from Guyana over the two periods remained high and relatively the same with 6,316 before 1990 and 6,240 between 1990 and 2000. In order of significance, among recent immigrants, Guyana accounted for the largest number (6,240) followed by Haiti (5,360), Jamaica (4,153), Dominica (1,429), and St. Vincent and the Grenadines (1,126). Before 1990, the main sending country was Grenada (11,147), followed by St. Vincent and the Grenadines (11,000), Haiti (6,736), St. Lucia (3,278), Jamaica (2,176), Dominica (1,878), Barbados (1,488), and Trinidad and Tobago (1,363). By the second period, Trinidad and Tobago, St. Lucia, Grenada and Barbados were no longer significant to the immigrant pool with immigrants amounting to less than 1,000 persons. Dominica showed a 24 percent decrease in the number of immigrants over the period and its numbers were still significant (over 1000).

## **CHARACTERISTICS OF IMMIGRANTS<sup>2</sup>**

Tables 2, 3 and 4 highlight the main characteristics of the immigrant population.

### **Socio-Demographic differentials between Local-Born and Lifetime Immigrants**

Table 2 presents the main socio-demographic characteristics of the lifetime immigrant population as compared to the local-born population. Sex, age, education, marital status, employment status, and occupation were found to be statistically significant variables in all four countries.

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<sup>2</sup> A distinction is made between pre-1990 (previous immigrants) and post 1990 (recent immigrants). Where there is no distinction, "immigrants" refer to lifetime, pre-1990 and post 1990 immigrants.

**Table 2: Socio-Demographic Characteristics of the Local-Born Population compared with Lifetime Immigrants**

Characteristic	Category	Antigua and Barbuda				The Bahamas				Barbados				Trinidad and Tobago			
		Local-Born (%)	Immigrants (%)	Total	N	Local-Born (%)	Immigrants (%)	Total	N	Local-Born (%)	Immigrants (%)	Total	N	Local-Born (%)	Immigrants (%)	Total	N
Gender	Male	47.0	42.6	45.8	19232	47.4	55.5	48.0	95108	47.9	40.0	52.7	88799	49.8	44.3	49.7	407608
	Female	53.0	57.4	54.2	22791	52.6	44.5	52.0	102921	52.1	60.0	47.3	98889	50.2	55.7	50.3	413345
Total		100.0	100.0			100.0	100.0			100.0	100.0	100.0		100.0	100.0	100.0	
N		30266	11757		42023	181687	16342		198029	173631	14057		187688	792622	28331		820953
		*p<.05				*p<.05				*p<.05				*p<.05			
Age	15-24	23.4	20.7	22.7	9525	26.4	12.8	25.2	49821	19.3	13.1	18.8	35317	27.5	6.3	26.8	219730
	25-34	21.6	30.5	24.1	10113	25.3	28.6	25.6	50524	19.8	21.2	19.9	37399	20.4	9.6	20	164283
	35-44	19.8	27.2	21.9	9200	21.6	29	22.2	43820	20.8	24.6	21	39501	20.6	19.1	20.5	168467
	45-54	14.4	11.4	13.6	5703	11.9	17.9	12.4	24465	15.3	19.0	15.6	29289	14.5	15.9	14.6	119533
	55-64	8.8	5.3	7.8	3287	7.7	8.3	7.7	15213	9.4	11.1	9.5	17792	8.6	16.7	8.8	72619
	65+	11.9	5.0	10.0	4195	7.1	3.4	6.8	13493	15.5	11.1	15.1	28390	8.5	32.3	9.3	76321
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30266	11757		42023	181098	16238		197336	173631	14057		187688	792622	28331		820953
Mean		39.92	36.13			36.64	38.53			42.42	42.76			37.75	53.84		
Median		37.00	34.00			34.00	37.00			40.00	41.00			35.00	54.00		
Standard Deviation		18.12	14.14			16.12	12.56			18.72	16.25			16.95	18.45		
		*p<.05				*p<.05				*p<.05				*p<.05			
Marital Status	Married	38.7	51.7	42.4	17500	40.6	57.5	42.0	82967	27.8	44.9	29.1	54101	39.9	48.7	40.2	321074
	Never Married	54.6	43.6	51.5	21255	47.5	35.2	46.5	91848	61.4	42.3	59.9	111501	51	32.2	50.3	402252
	Widowed/Legally Separated/Divorced	6.7	4.7	6.1	2538	11.8	7.3	11.5	22606	10.8	12.8	11.0	20427	9.1	19.1	9.5	75602
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		29675	11618		41293	181183	16238		197421	172082	13947		186029	771300	27628		798928
		*p<.05				*p<.05				*p<.05				*p<.05			
Education	Primary or Below	36.5	27.4	34.0	14262	7.1	36.7	9.5	18751	28.4	31.2	28.6	52928	41.4	67.2	42.1	336744
	Secondary	55.7	65.2	58.3	24486	76.3	54.4	74.5	146762	52.4	46.1	51.9	95924	54.4	27.5	53.5	428334
	Tertiary	7.8	7.5	7.7	3238	16.6	9.0	16.0	31459	19.2	22.7	19.5	35996	4.4	5.3	4.4	35494
Total		100.0	100.0	100.0	41986	100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N						180820	16152		196972	171273	13575		184848	773835	26737		800572
		*p<.05				*p<.05				*p<.05				*p<.05			
Employment Status	Employed	91.2	88.6	90.4	27748	96.6	93.4	96.4	145690	91.2	93.5	91.4	118222	88.7	91.4	88.8	420099
	Unemployed	8.8	11.4	9.6	2933	3.4	6.6	3.6	5517	8.8	6.5	8.6	11142	11.3	8.6	11.2	52933
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		21613	9068		30681	138553	12654		151207	119197	10167		129364	459941	13091		473032
		*p<.05				*p<.05				*p<.05				*p<.05			
Occupation	Legislator/Professional/Technical	22.5	15.5	20.5	5462	28.3	10.6	26.9	38733	25.8	29.5	26.1	30198	21.7	20.9	21.7	89551
	Clerical/Sales and Services	37.5	36.7	37.3	9947	35.2	7.5	33.0	47509	29.9	22.3	29.3	33974	26.9	15.5	26.6	109843
	Agriculture	2.0	1.1	1.8	470	2.1	1.7	2.0	2935	2.8	3.0	2.8	3244	3.7	2.7	3.7	15379
	Craft and related/plant and machine operators	21.5	22.9	21.9	5842	20.4	22.3	20.5	29558	22.1	23.8	22.3	25803	27	31.3	27.1	112149
	Elementary	16.5	23.9	18.6	4974	14	57.9	17.5	25182	19.4	21.4	19.5	22621	20.7	29.6	20.9	86465
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100	100	100	
N		19011	7684		26695	132357	11560		143917	106457	9383		115840	401616	11771		413387
		*p<.05				*p<.05				*p<.05				*p<.05			

(\*p<.05) means a statistically significant relationship exists

In Antigua and Barbuda, Barbados and Trinidad and Tobago, a greater proportion of immigrants than local-born were female whereas in The Bahamas, a greater proportion of immigrants were male. Regarding age, in The Bahamas, Barbados and Trinidad and Tobago, on average, ages of immigrants were higher than those of the local-born populations. This is indicative of earlier inflows of immigrants. In Antigua and Barbuda the mean age of the local-born population was higher than the mean age of the immigrant population, pointing to a significant increase in the number of immigrants between 1990 and 2000. In all four countries, there were proportionately more local-

born than immigrants between 15-24 years and with the exception of Trinidad and Tobago, there were more local-born in the 65+ age group. In all four countries an overwhelmingly greater proportion of immigrants than local-born were married.

In terms of education, only in the case of Antigua and Barbuda was there a greater proportion of immigrants than local-born who had received secondary level education. In Trinidad and Tobago, The Bahamas and Barbados, there were greater proportions of immigrants than local-born with primary level education or below while there were more local-born with secondary level education. Importantly however, it should be noted that while a greater proportion of immigrants in Barbados and Trinidad and Tobago had received primary level education or below, immigrants were also more likely than the local-born to have received up to tertiary level education while the proportions receiving tertiary level education were approximately equal in the case of Antigua and Barbuda. In the case of The Bahamas, the local born was also more likely to have received tertiary level education. Overall, the Bahamian local-born population was more educated than immigrants, outweighing them both at the secondary and tertiary levels. The local-born population of Antigua and Barbuda on the other hand were less educated as only at the primary level did the locals outweigh the immigrant population.

With respect to employment status, in Barbados and Trinidad and Tobago there were higher percentages of immigrants than local-born who were employed. In Antigua and Barbuda and The Bahamas however, greater proportions of the local-born populations were employed. In examining occupation it is revealed a greater proportion of immigrants were employed in elementary positions in all countries in addition to craft and related trades in Trinidad and Tobago. This could be related to the ageing population of Barbados which as indicated earlier has a large number of retirees therefore having labor shortage in a wider cross section of sectors.

### **Socio-Demographic differences between Local-Born and Pre-1990 Immigrants**

Table 3 presents the main socio-demographic differentials between the local-born population and the immigrant population before 1990.



**Table 3: Socio-Demographic Characteristics of the Local-Born Population compared with Immigrants before 1990**

Characteristic	Category	Antigua and Barbuda				The Bahamas				Barbados				Trinidad and Tobago			
		Local-Born (%)	Immigrants Prior to 1990 (%)	Total	N	Local-Born (%)	Immigrants Prior to 1990 (%)	Total	N	Local-Born (%)	Immigrants Prior to 1990 (%)	Total	N	Local-Born (%)	Immigrants Prior to 1990 (%)	Total	N
Gender	Male	47.0	43.9	46.7	15747	47.4	59.3	47.9	90821	47.9	38.0	47.4	86657	49.8	44.4	49.7	406638
	Female	53.0	56.1	53.3	17984	52.6	40.7	52.1	98922	52.1	62.0	52.6	96117	50.2	55.6	50.3	412054
Total		100.0	100.0	100		100.0	100.0	100.0		100.0	100.0	100.0		100	100	100	
N		30266	3465		33731	181687	8056		189743	173631	9143		182774	792622	26070		818692
		*p<.05				*p<.05				*p<.05				*p<.05			
Age	15-24	23.4	10.6	22.1	7463	26.4	4.1	25.4	48072	19.3	7.0	18.7	34118	27.5	4.3	26.8	219044
	25-34	21.6	19.8	21.4	7213	25.3	15.8	24.9	47146	19.8	15.7	19.6	35859	20.4	7.6	20.0	163555
	35-44	19.8	31.7	21.1	7104	21.6	33.3	22.1	41787	20.8	25.7	21.0	38397	20.6	19.1	20.5	168021
	45-54	14.4	17.5	14.7	4965	11.9	26.6	12.5	23695	15.3	23.0	15.7	28717	14.5	16.6	14.6	119364
	55-64	8.8	10.1	8.9	3017	7.7	14.0	7.9	14985	9.4	14.2	9.6	17531	8.6	17.8	8.9	72511
	65+	11.9	10.4	11.8	3969	7.1	6.2	7.1	13440	15.5	14.5	15.4	28152	8.5	34.7	9.3	76197
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30266	3465		33731	181098	8027		189125	173631	9143		182774	792622	26070		818692
Mean		39.92	42.88			36.64	44.43			42.42	46.80			37.75	55.57		
Median		37.00	41.00			34.00	44.00			40.00	45.00			35.00	56.00		
Standard Deviation		18.12	15.47			16.12	12.6			18.72	15.85			16.95	17.68		
		*p<.05				*p<.05				*p<.05				*p<.05			
Marital Status	Married	38.7	57.3	40.6	13458	40.6	65.2	41.7	78871	27.8	44.9	28.7	51922	39.9	49.0	40.2	320095
	Never Married	54.6	34.8	52.5	17391	47.5	24.8	46.6	88117	61.4	39	60.2	109156	51.0	30.7	50.4	401171
	Widowed/Legally Separated/Divorced	6.7	7.9	6.8	2265	11.8	10.0	11.7	22222	10.8	16.1	11.1	20103	9.1	20.3	9.5	75472
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0				100.0	100.0	100.0	
N		29675	3439		33114	181183	8027		189210	172082	9099		181181	773835	25438		796738
		*p<.05				*p<.05				*p<.05				*p<.05			
Education	Primary or Below	36.5	33.9	36.3	12220	7.1	44.0	8.7	16334	28.4	35.6	28.8	51873	41.2	69.9	42.1	335961
	Secondary	55.7	57.1	55.8	18808	76.3	49.8	75.2	141950	52.4	43.5	51.9	93539	54.4	25.8	53.5	427310
	Tertiary	7.8	9.1	7.9	2675	16.6	6.2	16.2	30507	19.2	20.9	19.3	34769	4.4	4.4	4.4	35162
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30243	3460		33703	180820	7971		188791	171273	8908		180181	773835	24598		798433
		*p<.05				*p<.05				*p<.05				*p<.05			
Employment Status	Employed	91.2	93.1	91.4	22230	96.6	96.0	96.6	140058	91.2	94.7	91.4	115108	88.7	91.5	88.8	418974
	Unemployed	8.8	6.9	8.6	2083	3.4	4.0	3.4	4943	8.8	5.3	8.6	10839	11.3	8.5	11.2	52813
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		21613	2700		24313	138553	6448		145001	119197	6750		125947	459941	11846		471787
		*p<.05				*p<.05				*p<.05				*p<.05			
Occupation	Legislator/Professional/Technical	22.5	21.8	22.4	4806	28.3	8.0	27.4	37988	25.8	30.2	26.0	29338	21.7	20.3	21.6	89254
	Clerical/Sales and Services	37.5	37.0	37.4	8031	35.2	7.3	34.0	47085	29.9	23.5	29.6	33364	26.9	15.3	26.6	109651
	Agriculture	2.0	1.0	1.9	414	2.1	2.1	2.1	2864	2.8	2.8	2.8	3137	3.7	2.8	3.7	15359
	Craft and related/plant and machine operators	21.5	21.9	21.5	4613	20.4	24.2	20.6	28457	22.1	20.5	22	24865	27.0	32.0	27.1	111885
	Elementary	16.5	18.2	16.7	3585	14.0	58.3	15.9	22036	19.4	23.1	19.6	22076	20.7	29.5	20.9	86134
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		19011	2438		21449	132357	6073		138430	106457	6323		112780	401616	10667		412283
		*p<.05				*p<.05				*p<.05				*p<.05			

(\*p&lt;.05) means a statistically significant relationship exists

With the exception of The Bahamas, a greater proportion of immigrants than local-born were female. In The Bahamas, a greater proportion of immigrants were male. In

terms of age, in all four countries, the mean ages of the immigrant population were higher than those of the local-born populations. This could be explained by earlier inflows and evident in the overall age distribution of the two populations. The findings also reveal that a greater proportion of immigrants than local born were married, with this being the case in all four countries.

Only in the case of Antigua and Barbuda was there a greater proportion of immigrants than local-born attaining secondary education. Importantly however, it should be noted that while a greater proportion of immigrants than local-born in Barbados had attained primary education or below, a greater proportion than the local-born also attained tertiary education. There was no difference in the proportions in Trinidad and Tobago who had attained tertiary education. A greater proportion of immigrants than local-born in Antigua and Barbuda had also attained tertiary education. Overall, the Bahamian local-born population was more educated than immigrants, outweighing them both at the secondary and tertiary levels. The local-born population of Antigua and Barbuda on the other hand was less educated as only at the primary-level did they surpass the immigrant population.

Greater proportions of immigrants than local born populations were employed in all countries with the exception of The Bahamas. In The Bahamas, more of the local-born was employed. An examination of the occupation data reveals that greater proportions of immigrants were employed in elementary positions in all countries, in addition to craft and related trades in three of the four countries, with the exception being The Bahamas. This was in line with what was expected as a number of immigrants do take up elementary jobs, at least to get a start, in their country of destination. Barbados was the only country with a higher proportion of immigrants than local-born employed in legislative/professional/technical positions.

### **Socio-Demographic differentials between Local-Born and Post-1990 Immigrants**

Table 4 presents the main socio-demographic differentials between the local-born population and recent (1990-2000) immigrant population.

**Table 4: Socio-Demographic Characteristics of the Local-Born Population compared with Immigrants between 1990 and 2000**

Characteristic	Category	Antigua and Barbuda				The Bahamas				Barbados				Trinidad and Tobago			
		Local-Born (%)	Immigrants 1990-2001 (%)	Total	N	Local-Born (%)	Immigrants 1990-2000 (%)	Total	N	Local-Born (%)	Immigrants 1990-2000 (%)	Total	N	Local-Born (%)	Immigrants 1990-2000 (%)	Total	N
Gender	Male	47.0	41.7	46	17321	47.4	51.5	47.5	90000	47.9	43.4	47.8	84718	49.8	42.9	49.8	396020
	Female	53.0	58.3	54	20361	52.6	48.5	52.5	99369	52.1	56.6	52.2	92448	50.2	57.1	50.2	398863
Total		100.0	100.0	100		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30266	7416		37682	181687	7682		189369	173631	3535		177166	792622	2261		794883
		*p<.05				*p<.05				*p<.05				*p<.05			
Age	15-24	23.4	25.7	23.9	9000	26.4	21.9	26.2	49415	19.3	26.1	19.4	34402	27.5	30.3	27.5	218622
	25-34	21.6	36.1	24.4	9206	25.3	42.0	26.0	49086	19.8	34.5	20.1	35644	20.4	32.2	20.4	162300
	35-44	19.8	25.3	20.9	7883	21.6	24.7	21.7	41003	20.8	22.1	20.8	36830	20.6	19.7	20.6	163491
	45-54	14.4	8.3	13.2	4976	11.9	8.8	11.8	22237	15.3	9.8	15.2	26961	14.5	7.5	14.5	115198
	55-64	8.8	2.8	7.6	2876	7.7	2.2	7.4	14024	9.4	4.3	9.3	16388	8.6	4.8	8.6	67986
	65+	11.9	1.8	9.9	3741	7.1	0.4	6.9	12976	15.5	3.2	15.2	26941	8.5	5.5	8.5	67286
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30266	7416		37682	181098	7643		188741	173631	3535		177166	792622			794883
Mean		39.92	32.52			36.64	32.37			42.42	33.61			37.75	33.88		
Median		37.00	31.00			34.00	31.00			40.00	31.00			35.00	30.00		
Standard Deviation		18.12	11.58			16.12	9.70			18.72	12.84			16.95	15.04		
		*p<.05				*p<.05				*p<.05				*p<.05			
Marital Status	Married	38.7	49.1	40.8	15086	40.6	49.3	41.0	77396	27.8	47.3	28.2	49496	39.9	44.7	39.9	308603
	Never Married	54.6	48.1	53.3	19719	47.5	46.2	47.5	89652	61.4	47.0	61.1	107255	51	49.4	51.0	394444
	Widowed/Legally Separated/Divorced	6.7	2.9	6	2202	11.8	4.4	11.5	21758	10.8	5.7	10.7	18839	9.1	5.9	9.1	70443
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100	100.0	100.0	
N		29675	7332		37007	181183	7623		188806	172082	3508		175590	771300	2139		773490
		*p<.05				*p<.05				*p<.05				*p<.05			
Education	Primary or Below	36.5	23.9	34.0	12816	7.1	29.0	8.0	15037	28.4	20.8	28.3	49416	41.2	36.6	41.2	319557
	Secondary	55.7	69.7	58.4	21997	76.3	59.1	75.6	142476	52.4	50.9	52.3	91422	54.4	47.9	54.4	421998
	Tertiary	7.8	6.5	7.5	2839	16.6	11.9	16.4	30922	19.2	28.3	19.4	33885	4.4	15.5	4.4	34419
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		30243	7409		37652	180820	7615		188435	171273	3450		174723	773835	2139		775974
		*p<.05				*p<.05				*p<.05				*p<.05			
Employment Status	Employed	91.2	86.2	90.2	24674	96.6	90.7	96.4	139115	91.2	91.0	91.2	110938	88.7	90.4	88.7	409263
	Unemployed	8.8	13.8	9.8	2690	3.4	9.3	3.6	5224	8.8	9.0	8.8	10702	11.3	9.6	11.3	51923
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0	
N		21613	5751		27364	138553	5786		144339	119197	2443		121640	459941	1245		461186
		*p<.05				*p<.05				not significant				not significant			
Occupation	Legislator/ Professional/ Technical	22.5	12.1	20.4	4843	28.3	13.9	27.8	38215	25.8	28.4	25.8	28056	21.7	26.9	21.7	87383
	Clerical/Sales and Services	37.5	36.7	37.3	8854	35.2	7.6	34.2	47029	29.9	18.6	29.7	32290	26.9	17.4	26.9	108208
	Agriculture	2.0	1.0	1.8	436	2.1	1.2	2.0	2795	2.8	3.7	2.8	3043	3.7	1.8	3.7	15080
	Craft and related/plant and machine operators	21.5	23.6	21.9	5192	20.4	20.3	20.4	28026	22.1	32.2	22.3	24278	27.0	23.9	27.0	108733
	Elementary	16.5	26.6	18.5	4394	14.0	57.0	15.6	21414	19.4	17.2	19.3	20994	20.7	30.0	20.7	83316
Total		100.0	100.0	100.0		100.0	100.0	100.0		100.0	100.0	100.0		100	100	100	
N		19011	4708		23719	132357	5122		137479	106457	2204		108661	401616	1104		402720
		*p<.05				*p<.05				*p<.05				*p<.05			

(\*p<.05) means a statistically significant relationship exists

In comparing the local-born population to recent immigrants, in Antigua and Barbuda, Barbados and Trinidad and Tobago, a greater proportion of immigrants were female. In The Bahamas, however, a greater proportion of immigrants than local-born were male. The mean ages of the immigrant population in all four countries were lower than that of the local-born populations. In all countries except The Bahamas, there were higher

proportions of immigrants than local-born in the 15-24 years age categories. In all four countries there were higher proportions of local-born than immigrants aged 65+ years. All four countries had proportionately more immigrants who were married.

Trinidad and Tobago, Barbados, and Antigua and Barbuda had proportionately more local-born with primary education or below, while The Bahamas had proportionately more immigrants with primary education or below. With the exception of Antigua and Barbuda, there were greater proportions of immigrants with secondary education. Trinidad and Tobago and Barbados had a greater proportion of immigrants with tertiary education while Antigua and Barbuda and The Bahamas each had a greater proportion of local-born with tertiary education. Overall, the Bahamian local-born population was more educated than immigrants at both the secondary and tertiary levels.

There were proportionately more local-born residents than immigrants employed in Antigua and Barbuda and The Bahamas. There was no difference in employment status between the local-born population and immigrants in Trinidad and Tobago and Barbados. There were proportionately more immigrants employed in elementary positions in three countries except Barbados. Barbados and Trinidad and Tobago had greater proportions of immigrants than local-born in high-end positions.

### **How Recent Immigrant Characteristics compare with Previous Immigrants**

In order to identify the main socio-demographic predictors of population movement associated with time of movement, a logistic regression was run on period of arrival of immigrants. This comparison is necessary to explore how pre-1990 immigrants differ from 1990-2000 immigrants and therefore enable us to get a perspective on the dynamics of recent immigration into the destination countries. For example, are recent immigrants of higher “quality” than earlier arrivals? Immigrants who arrived before 1990 were coded as 0 (reference group) and those who arrived between 1990 and 2000/2001 were coded as 1. The independent variables include all the variables used in the bivariate analysis excluding occupation; occupation was excluded because this question dealt with only respondents who were in employment.

**Table 5: Logistic Regression of the Socio-Demographic Predictors of Migration Probability by Period of Arrival**

Factors	Category	Antigua and Barbuda		The Bahamas		Barbados		Trinidad and Tobago	
		$\beta$	OR	$\beta$	OR	$\beta$	OR	$\beta$	OR
Age		-0.055*	0.947	-0.098*	0.907	-0.076*	0.927	-0.090*	0.914
Gender	Female	0.039	1.04	0.272*	1.312	-0.322*	0.725	-0.135*	0.873
	Male <sup>~</sup>								
Education	Secondary	0.344*	1.410	0.108*	1.114	-0.085	0.919	0.197*	1.218
	Tertiary	0.179*	1.197	1.028*	2.796	0.261*	1.298	1.203*	3.331
	Primary or Below <sup>~</sup>								
Marital Status	Married	-0.017	0.984	-0.115	0.892	0.559*	1.749	0.156	1.169
	Never Married	0.018	1.018	0.385*	1.470	-0.068	0.935	-0.181	0.835
	Widowed/Divorced/ Legally Separated <sup>~</sup>								
Employment Status	Employed	-0.233*	0.792	-0.113*	0.893	-0.867*	0.42	-0.522*	0.593
	Unemployed	0.306*	1.358	0.308*	1.361	-0.359*	0.698	-0.527*	0.590
	Inactive <sup>~</sup>								
Model $\chi^2$		1414.666		4575.094		2350.469		3377.586	
Degrees of Freedom		8		8		8		8	
Number of Cases		10682		15401		12180		25686	
-2LL(0)		13390.569		21338.919		14388.456		14159.757	
-2LL(1)		11975.903		16763.825		12037.987		10782.17	
Hosmer and Lemeshow $\chi^2$		64.500		125.135		14.719		203.298	
Nagelkerke's R2		0.174		0.343		0.253		0.291	
*p<.05	<sup>~</sup> Reference Category	OR= Odds Ratio							

An examination of Table 5 shows based on the logistic regression, in all countries, age had a significant but negative effect on the likelihood of an immigrant arriving between 1990 and 2000. This suggests older persons were significantly less likely to have arrived between 1990 and 2000 than younger persons. The odds ratios were about 0.9 in all countries.

Gender had a significant effect on the likelihood an immigrant arrived between 1990 and 2000 in all countries with the exception of Antigua and Barbuda. In The Bahamas, the association is positive suggesting females were more likely than males to have arrived between 1990 and 2000 (OR = 1.312). This can be explained by the demand up to about the 1980s for workers on the sugar plantations and other male-related jobs like craft and related trades and a shift from this demand. The demand for female laborers in tourism and the service areas after the 1980s but more importantly the need for high end workers in legislative and related positions which increased by about 6 percent over the period can account for this finding. In Barbados and Trinidad and Tobago, the association is negative, suggesting females were less likely than males to have arrived between 1990 and 2000 with odds ratios less than 1. This result can be explained by

the increase in the proportion of immigrants employed in craft and related positions (male oriented) in Barbados and the decrease in clerical/sales and service positions.

In all four countries, education was found to have a significant effect on the likelihood that an immigrant arrived between 1990 and 2000. As compared to primary education or below, tertiary level education is associated with increased log odds of an immigrant arriving between 1990 and 2000. This suggests those with tertiary education were more likely than those with primary education or below to be recent immigrants with odds ratios of 1.2 in Antigua and Barbuda, 2.8 in The Bahamas, 1.3 in Barbados, and 3.3 in Trinidad and Tobago. With respect to secondary education compared with primary level or below, this was significant in three countries with the exception of Barbados. As compared to primary education or below, secondary education is associated with increased odds of an immigrant arriving between 1990 and 2000 with odds ratios of 1.4 in Antigua and Barbuda, 1.1 in The Bahamas, and 1.2 in Trinidad and Tobago.

Marital status was found to have a significant effect on the likelihood that an immigrant arrived between 1990 and 2000 only in The Bahamas (among the never married) and Barbados (among the married). In The Bahamas, the association is positive suggesting that those never married were more likely to have arrived between 1990 and 2000 as compared to those widowed/legally separated/divorced with an odds ratio of 1.47. In Barbados, the association is also positive suggesting that those married were more likely to have arrived between 1990 and 2000 as compared to those widowed/legally separated/divorced with an odds ratio of 1.75.

Employment status was found to have a significant effect on the likelihood an immigrant arrived between 1990 and 2000 in all countries. When comparing the employed with the inactive population, this association is negative in all countries with odds ratios less than 1. This suggests that as compared with the inactive population, those employed were less likely to have arrived between 1990 and 2000. When comparing the unemployed and with the inactive population, the association is negative in Barbados and Trinidad and Tobago with odds ratios less than 1 suggesting that as compared to the inactive population, being unemployed is associated with decreased odds of an immigrant arriving between 1990 and 2000. In Antigua and Barbuda and The

Bahamas however, those unemployed were 1.4 times more likely than those inactive to have arrived between 1990 and 2000. In Antigua and Barbuda and The Bahamas however, the unemployed were more likely than the inactive population to be recent immigrants pointing to the interplay between employment and social networking as a catalyst for movement.

## **THE MIGRATION DEBATE AND SUSTAINABLE DEVELOPMENT**

The current debate on migration in the region is mainly focused on free movement and the resulting need to compete in a regional skills market and to meet labor shortages through recruitment within the region. There is a constant neglect of the fact that Caribbean migration is very complex and dynamic and that all aspects of outflows and inflows affect the economic, social and demographic structure at both sending and receiving countries and have implications for individuals. It is not just labor movements which impact on labor markets but also students, retirees and family members. Therefore, while one cannot overlook the role played by economic factors in migration, it is equally important also that there is focus on the social, political and other factors which impact movement. This is not to downplay the importance of free movement in light of a Caribbean Single Market but rather to highlight the greater picture of migration in general and its interplay with development. Against this background, the findings from this study not only have implications for labor movements but migration and development in general.

The relationship between migration and development is paradoxical in nature. On the one hand, development plans and actions can help to alleviate the factors of expulsion and attraction associated with migratory flows. On the other hand, migration can contribute positively to the development of a country. Because of the dynamism involved with migration and development, it is necessary that policies designed to govern the process are not prejudiced by governments' perceptions but are based on scientific knowledge about the migration situation. Flows and counter-flows of persons are very beneficial to all involved in the migration process; the sending and receiving countries and the immigrants themselves. The exchange in terms of skills, knowledge,

social networking, remittances and labor markets are engines of development. As such, emphasis should be placed on creating the appropriate circumstances that will allow migration to produce positive development outcomes to benefit all stakeholders.

Concerning the migration debate, we attempt to link the characteristics of immigrants to development issues. While lifetime immigrants were found to be more mature, it must be noted that this is a mere reflection of major moves before 1990 particularly in The Bahamas, Barbados, and Trinidad and Tobago. However, our logistic regression revealed that in all countries, younger persons were more likely to be recent immigrants than older persons. Additionally, the mean age of previous immigrants were also found to be less than that of the local-born. Immigrants being predominantly in the younger ages upon arrival in destination countries can potentially skew the age structure of a population. However, in most Caribbean countries, their numbers are too small to have a significant effect in this regard. The youthfulness of the immigrant population has many benefits to the destination countries providing a reasonably young labor force. Further, immigrants to Barbados for example, provide requisite skills needed in both low-end and high-end positions, responding to the ageing phenomenon of the country.

The study has clearly revealed that immigrants were predominantly females. This feminization of the immigrant population serves as a stimulus for female empowerment and also helps to sustain the migration ring through social networking. The importance of social networking in the migration process generally has been noted by theory and research, and it is expected in the immigration data analyzed in this study. Women also remit money home to maintain their families and their households which are beneficial to the origin countries, but their participation in the immigrant pool has implications for family life. This is an issue that can be partly addressed with the proper policy but the relevant studies must first be carried out to inform such policy. Noteworthy, this feminization of the immigrant population was found to vary by country and changes over time suggesting that it is in response to labor needs which are gender-based.

Immigrants were found to be more rather than less educated and therefore bring with them relevant knowledge and skills to the countries of destination. They may be willing to accept jobs and salaries that the local-born population with the same or lower levels



of education would not be willing to accept for varying reasons. Immigrants therefore complement and are indispensable to the labor force in the destination countries. For the immigrants, these wages allow for a better standard of living and allow them to take care of their financial obligations in their home country. Also, emigration may result in the less educated being left behind in the origin countries which can hinder the origin country's development. However, with free movement, requisite skills can be transferred from elsewhere in the region to adequately fill the vacancies encouraging immigration.

The link between employment status and development in the migration study is critical. Immigrants can increase the rates of unemployment in a country by contributing to joblessness. This is indeed a burden to the economies of the receiving countries. Yet, policy makers must bear in mind that immigrants also contribute to the economies through taxes and also play a critical role in the informal sectors which are important to the economies. Further, the immigrants tend to lower the levels of unemployment in the origin country and contribute to its economic development through remittances which are significant to Caribbean economies.

Significant proportions of immigrants were engaged in high-end jobs. Therefore, reservations about the unrestricted movement of professionals under the CSME because of fear of highly-educated locals being denied jobs are quite understandable. The findings, however, show only in Barbados and Trinidad and Tobago was there a greater proportion of immigrants than local-born in these positions. For other countries, this does not appear to be a real threat.

As indicated by migration theory and literature, migration is selective based on response to the factors of attraction and expulsion. The socio-economic and demographic structures act as factors of expulsion and attraction and persons respond to opportunities or lack thereof based on these factors. For example, the number of immigrants over time in the different countries is also a reflection of the socio-economic developments in these countries. The difference in the numbers who moved over the period also shows us how development acted as an impetus for movement. In the case of Trinidad and Tobago for example, the number of immigrants virtually dried up over the two periods, but in addition to this, in light of improvements in main sending countries like Grenada, and St. Vincent and the Grenadines, the numbers who migrated

from these countries decreased over the two periods in this study. We also saw where the numbers from Jamaica increased over time reflecting harsh economic times in that country while the numbers to Antigua and Barbuda more than doubled as labor conditions attracted a number of immigrants to that country. Due to the shortage of labor in destination countries and the excess in countries of origin, immigration is indeed necessary for the sustainability of the economy and the labor force in the destination countries, and the spinoffs in terms of remittances and skills gained by immigrants are of importance in the countries of origin. Other characteristics such as younger ages were also seen to be advantageous. For example, the ageing situation in Barbados was in fact a stimulus for population movement, as Barbados was the only country where in all sectors but one, there were a greater proportion of immigrants than local-born employed. Further, the study has also revealed in the case of Trinidad and Tobago particularly, that it was not just labor movements which characterized the large flow of females into that country and this could be indicative of social networking as these females are suspected to be in the informal sector as they were not captured in the labor force. The predominance of immigrants from specific countries in particular destination countries cannot be fully understood without acknowledging the important role played by these networks in the countries studied.

There are some general implications to be drawn from the findings of this study as we move towards full implementation of free movement in the region as well as consider other forms of population movements which also need to be addressed. First, the knowledge of migration within the region needs to be expanded. Immigrants are important to the overall development of countries. Also, it is not just labor movements which characterize immigration but other factors such as social networking, family life, and educational opportunities among others. Furthermore, immigrants fill a gap where there is an unmet need for labor, have a “younging” effect on the age structure of populations, enhance the knowledge and quality of the labor force, and have requisite skills to perform in their job functions. Against this backdrop, it is up to us to find ways to maximize the benefits from migration and reduce the negatives. Second, the findings point us to the fact that the inactive population should not be overlooked in designing

immigration policies. For example, retirees become a part of the dependent population and thus impact on the economic situation while for students their main aim is to study and improve their human capital and they in turn may take up jobs in these countries upon completion of their studies. Thirdly, there is the need to address movements in terms of social networking as it can lead to increases in the inactive population and an influx of immigrants in the informal sector. Finally, immigrants are more educated and their overall quality is continuously improving. With a highly skilled and educated immigrant population, what does this mean for local-born jobs? Further, what does it mean for the treatment of and attitudes towards these “intruders”? Also, if both populations are equally educated, then can free movement really offer true competition against the backdrop of national versus regional needs?

Pulling all these together, this study has provided valuable information and created room for further research. It can serve as a guide to policy makers who are now in the process of reviewing immigration policies. To migration researchers this study will provide invaluable information particularly with respect to fixed periods of immigration. The implications of this analysis are that the Caribbean region will witness an even more severe population movement with the Caribbean Single Market and Economy and therefore the local-born population will need to compete with immigrants, and the quality of immigrants will impact significantly on this competition. Some countries more than others will continue to be the main sending countries as the labor market and the economic and social conditions in these countries may not change considerably in the short run. Some countries will continue to be the main destination countries because of either relaxed policies, or better opportunities. Because the region is relatively small, with few countries with relatively strong economies, there are potential issues with immigration as countries will start receiving more immigrants than they can actually cater for and this will create other problems of illegal migration and the challenges that come with it. So while immigration is indeed a positive phenomenon, if not controlled and regulated effectively, it can prove just the opposite. This paper has provided an insight into who the immigrants are, what activities they engage in at their destination countries, and what factors, macroeconomic and individual, may influence their decision to emigrate as well as how the quality of immigrants change overtime. Most importantly,

based on empirical evidence, this study has provided suggestions as to how to create an environment within which migration can be sustainable and beneficial to all.

To this end, the researchers advance a number of recommendations:

- Policies on migration must be developed as a collaborative effort by all CARICOM member countries for optimum benefits.
- Migration policies must be comprehensive addressing issues relevant to all stakeholders, including origin and destination countries, and various categories of immigrants.
- Policies should consider the circulation of skills as a rational strategy aimed at sustainable migration providing mutual and sustainable benefits to both sending and receiving countries.
- Government should organize sensitization campaigns to inform the local-born population about CSME and in particular free movement regulations.

## REFERENCES

- Antigua and Barbuda: *Economic Development to the Year 2000* (1991). Regional Economic Conference 1991, Port of Spain.
- Bissessar, A. and Hosein, R. "Role of the State in the Economic Development of Trinidad and Tobago with Special Reference to the Petrochemical Sector", mimeo.
- Chaney, E. (1975). "Migration from the Caribbean Region; Determinants and Effect of Current Movements". Hemispheric Migration Project.
- Cholewinski, R., Perruchoud, R. and E. Macdonald (2007). *International Migration and Law: Developing Paradigms and Key Challenges*. Cambridge: Cambridge University Press.
- Downes, A. (1998). "An Economic Analysis of Unemployment in Trinidad and Tobago". Seminar Paper on Labour Market, May 19-20.
- Duany, J. (1994). "Beyond The Safety Valve: Recent Trends in Caribbean Migration", *Social and Economic Studies*, Vol. 43:1.
- Fajnzylber P. and H. Lopez (2007). *Remittances and Development: Lessons from Latin America*. Washington DC: World Bank.
- Gopaul-McNicol, S. (1993). *Working with West Indian Families*. Guilford Press.
- Howard, M. (2006). *The Economic Development of Barbados*. Kingston: University of the West Indies Press.
- Kritz, M. and H. Zlotnik (1992). "Global Interactions: Migration Systems, Processes, and Policies." In M. Kritz, L. Lim and H. Zlotnik (eds), *International Migration Systems: A Global Approach*. New York: Clarendon.
- Lee, E. (1969). "A Theory of Migration." In J. A. Jackson (ed.), *Sociological Studies 2: Migration*. Cambridge: Cambridge University Press.
- Meditz, S. and D. Harraty (1987). "Caribbean Islands: A Country Study". Retrieved on January 15, 2010, from the Washington GPO for the library of Congress, 1987. <http://countrystudies.us/caribbean-islands/121.htm>

- Mills, F. (2004). "1990-1991 Population and Housing Census of the Commonwealth Caribbean". Regional Monograph – Intraregional Mobility the New Caribbean Migration.
- Pienkos, A. (2006). "Caribbean Labour Migration; Minimizing Losses and Optimizing Benefits". Port of Spain, International Labour Organization Office.
- Thomas-Hope, E. "Trends and Patterns of Migration to and From Caribbean Countries." In International Migration and Development in the Americas: Symposium on International Migration in the Americas. San Jose, Costa Rica, September 2000, United Nations Publication 2001.
- United Nations (2004). *Globalization and Development: Twenty Ninth Session, Brasilia, Brazil, 6-10 May, 2002*. UN Publication, 2004.
- United Nations (2006). "Migration in the Caribbean-What Do We Know"? Expert Group Meeting on International Migration and Development in Latin America and the Caribbean. United Nations Secretariat, Mexico City, 30 November – 2 December 2005, UNECLAC, Trinidad and Tobago.

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