

A Demographic Profile of the Caribbean

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Abstract

This article examines the demographic characteristics of the Caribbean using a number of selected countries including Barbados. It uses traditional demographic indicators such as crude birth rate, total fertility rate, crude death rate, life expectancy and population growth rate to provide a demographic profile of the Caribbean. The study also looks at the changes in the indicators over time to establish patterns and trends. The article shows that fertility and mortality have been declining in the region and that life expectancy at birth has been rising in all the selected countries used in the study. For example, in Barbados during the 1980-85-2005-10 period, crude birth rate is estimated to decline by 31.6%, while Belize is expected to record the highest decline of 38%. This article finds further that the changing fertility and mortality levels have resulted in changes to the age composition of the population with the population aged 65 years and over estimated to increase significantly in the next decade.

Introduction

In most developing countries, demography and demographic variables are not usually given the significance they deserve in the formulation, development and implementation of policies and development plans. Demographic variables are also either vaguely considered or ignored in the development and delivery of social and economic programmes and services in developing societies, and the Caribbean is no exception.

The Caribbean region is currently undergoing demographic changes which should be identified, discussed and included in policy and programme development and implementation. This article is, therefore, an introductory attempt to examine the changing demographic characteristics of the region, with a specific purpose of discussing the changing demographic characteristics of the region.

The methodology involves the identification, presentation and analyses of a number of tables containing diverse demographic information on the selected Caribbean countries. The data from the study come from the census reports and from secondary data from the Economic Commission for Latin America and the Caribbean (ECLAC).

Two countries on mainland South America - Belize and Guyana - have been included in the study because they identify strongly with the region. For example, Georgetown, Capital City of Guyana, houses the Headquarters of the Caribbean Community Secretariat (CARICOM).

Traditional demographic characteristics

A number of indicators are used in this article to provide a traditional demographic profile of the Caribbean, including age composition, measures of fertility, mortality, population growth, and urban population. Lack of adequate data on migration has made it impossible to include a discussion of internal and international migration in this paper, and this subject would have to be visited in a separate study in the future.

Fertility

The measures of fertility used in this study are the crude birth rate (CBR) and total fertility rate (TFR). Table 1 shows crude birth rate in the Caribbean from 1980-85 to 2005-2010. It is evident from the table that crude birth rate has been declining in the region and that in most cases the decline has been massive. The highest change occurred in Guyana where CBR declined by over 39% during the period. Other massive percentage changes in CBR were recorded in Belize (38.0%), Dominican Republic (36.5%), Haiti (32.9%), Jamaica (32.5%), Trinidad and Tobago (32.5%), Barbados (31.6%) and Cuba (30.2%).

Not only have reasonably large percentage changes been recorded, but it is also clear that the decline in CBR has been consistent in many countries during the 1980-85 to 2005-2010 period. For example, in the Netherlands Antilles, CBR declined from 20.3 children per 1000 population in 1980-85 to 19.3 in 1985-90 and 18.2 in 1990-95 to 17.0 in 1995-2000. In Barbados, CBR declined consistently from 17.4 in 1980-85 to 15.7 in 1985-90, 15.2 in 1990-95, 15.1 in 1995-2000, 14.8 in 2000-2005 and 11.9 per 1000 population in 2005-2010. In the Dominican Republic, CBR declined consistently from 31.5 per 1000 population in 1980-85 to 20.0 in 2005-2010 while, in Haiti, there was a consistent decline in CBR from 42.9 per 1000 population in 1980-85 to 28.8 in 2005-2010 (table 1).

Table 1. Crude birth rate, selected Caribbean countries, 1980-85 to 2005-2010

Country	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-10	% change 1980-85-2005-10
Netherlands Antilles	20.3	19.3	18.2	17.0			-16.3*
Bahamas	23.8	20.0	18.4	18.0	17.2	18.4	-22.7
Barbados	17.4	15.7	15.2	15.1	14.8	11.9	-31.6
Belize	37.4	35.0	34.2	32.2	29.3	23.2	-38.0
Cuba	16.2	17.4	14.9	13.1	11.7	11.3	-30.2
Guadalupe	20.2	19.2	18.9	18.8	18.6	14.5	-28.2
Guyana	29.9	26.5	25.2	24.9	22.7	18.1	-39.5
Haiti	42.9	41.6	33.6	31.8	30.4	28.8	-32.9
Jamaica	26.8	23.3	24.0	24.2	21.9	18.1	
Dominican	31.5	30.1	27.0	24.1	21.8	20.0	-36.5

Republic							
Trinidad and Tobago	28.3	24.5	20.9	19.1			-32.5*

Source: Derived from United Nations, 1999

* % change 1980-85 to 1995-2000

Table 2 points to declining TFR in the Caribbean between 1975-80 and 2005-10, with Belize recording the highest percentage change. During 1975-80, TFR was 6.2 in Belize, but at the end of the study period (2005-10), it had declined by 58% to 2.6. In Trinidad and Tobago, the decline was low at the beginning of the period (3.4), but TFR declined further by almost 53% at the end of the study period. Other large % changes include Dominican Republic (-48.9%), Guyana (-46.1%), Jamaica (-45.0%), Guadalupe (-41.9%), and Haiti (-40.0%). Barbados recorded a % change of -27.3% during the same period, while the Netherlands Antilles recorded only -8.0% change in TFR.

Table 2. Total fertility rate, selected Caribbean countries, 1975-80 to 2005-2010

Country	1975-80	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-10	% change 1980-85 - 2005-10
Netherlands Antilles	2.5	2.4	2.3	2.2	2.2	2.3	-	-8.0*
Bahamas	2.8	2.7	2.3	2.0	2.0	2.0	2.4	-14.3
Barbados	2.2	1.9	1.6	1.7	1.7	1.7	1.6	-27.3
Belize	6.2	5.4	4.7	4.2	3.7	3.1	2.6	-58.1
Cuba	2.1	1.8	1.8	1.6	1.6	1.6	1.6	-23.8
Guadalupe	3.1	2.6	2.5	2.1	2.1	2.1	1.8	-41.9
Guyana	3.9	3.3	2.7	2.6	2.3	2.1	2.1	-46.1
Haiti	6.0	6.2	5.9	4.8	4.4	4.0	3.6	-40.0
Jamaica	4.0	3.6	2.6	2.6	2.4	2.3	2.2	-45.0
Dominican Republic	4.7	3.9	3.5	3.1	2.8	2.6	2.4	-48.9
Trinidad and Tobago	3.4	3.2	2.8	2.3	2.3	2.4	1.6	-52.9

Source: Derived from United Nations, 1999

* % change 1980-85 to 2000-05

Mortality

Changing mortality patterns and trends in the Caribbean are presented in table 3. Many Caribbean countries have been recording consistent decline in crude death rate (CDR), albeit Bahamas, Barbados and Trinidad and Tobago recorded fluctuating CDR during the period 1980-85 to 2005-10.

The only exception is Cuba where CDR is estimated to increase by 20% from 6.4 per 1000 in 1980-85 to 7.7 in 2005-10. Cuba recorded a consistent increase for each of the periods under consideration, rising from 6.4 in 1980-85 to 6.7 in 1985-90, 6.8 in 1990-95, 7.0 in 1995-2000, 7.2 in 2000-05 and 7.7 in 2005-10.

The highest decline in mortality during the period is estimated to occur in Haiti (-42.7%), followed by Belize (-35.1%), Guyana (-23.9%) and Dominican Republic (-23.5). Bahamas (-3.8%), Barbados (-5.0%), and the Netherlands Antilles (-9.7%) are estimated to record lower decreases in CDR by 2010 (table 3).

Table 3. Crude death rate, selected Caribbean countries, 1980-85 to 2005-2010

Country	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-10	% change 1980-85 - 2005-10
Netherlands Antilles	7.2	6.8	6.5	6.5	-	-	-9.7*
Bahamas	5.3	5.7	5.1	4.9	5.0	5.1	-3.8
Barbados	8.0	8.7	8.9	8.2	7.9	7.6	-5.0
Belize	5.7	5.2	4.8	4.2	3.9	3.7	-35.1
Cuba	6.4	6.7	6.8	7.0	7.2	7.7	20.3
Guadalupe	6.7	6.2	6.1	5.8	5.8	5.8	-13.4
Guyana	8.8	8.2	8.0	7.4	6.9	6.7	-23.9
Haiti	15.7	14.1	12.0	10.8	9.8	9.0	-42.7
Jamaica	6.7	6.5	6.5	5.9	5.6	5.4	-19.4
Dominican Republic	6.8	5.9	5.5	5.3	5.2	5.2	-23.5
Trinidad and Tobago	7.1	6.8	6.1	5.9	6.0	6.2	-12.7

Source: Derived from United Nations, 1999

* % change 1980-85 to 2000-05

Life expectancy at birth

A glance at table 4 reveals trends in life expectancy at birth for both males and females in the Caribbean. The highest life expectancy at birth for both males and females is found in Guadalupe, where life expectancy is estimated to increase from 68.9 in 1980-85 to 76.0 in 2005-10 for males, and from 76.2 in 1980-85 to 82.5 in 2005-10 for females. Other countries, which are estimated to record high life expectancy at birth for males during 2005-10 include Cuba (75.4), Bahamas and Barbados (75.2), Belize (75.0), and Jamaica (74.5). Haiti (59.8) and Guyana (65.1) are estimated to record comparatively lower male life expectancy at birth.

For females, countries, which are estimated to record high life expectancy at birth during 2005-10, include Barbados (80.2), Cuba (79.4), Bahamas (79.1), Jamaica (78.6), Trinidad and Tobago (78.2) and Belize (78.1). Countries expected to

record lower female life expectancy at birth during 2005-10 include Haiti (62.8), and Guyana (70.9).

In terms of % change in life expectancy at birth between 1980-85 and 2005-10, Haiti is estimated to record the highest increase of 18.2 for males and 17.8 for females. The lowest % change is estimated to occur in Cuba where only small % changes of 4.3% and 4.9% are expected for males and females respectively during the same period, followed by Barbados and Belize.

Table 4. Life expectancy at birth, selected Caribbean countries, 1980-85 to 2005-2010

Country	1980-85		1995-2000		2005-2010		% change 1980-85 - 2005-10	
	Male	Female	Male	Female	Male	Female	Male	Female
Netherlands Antilles	-	-	-	-	-	-	-	-
Bahamas	64.8	72.9	70.5	77.1	72.5	79.1	11.9	8.5
Barbados	70.5	75.5	73.6	78.7	75.2	80.2	6.7	6.2
Belize	70.4	72.6	73.4	76.1	75.0	78.1	6.5	7.6
Cuba	72.3	75.7	74.2	78.0	75.4	79.4	4.3	4.9
Guadalupe	68.9	76.2	72.1	78.8	76.0	82.5	10.3	8.3
Guyana	58.4	64.2	61.1	67.9	65.1	70.9	11.5	10.4
Haiti	50.6	53.3	55.8	58.7	59.8	62.8	18.2	17.8
Jamaica	69.2	73.6	72.9	76.8	74.5	78.6	7.7	6.8
Dominican Republic	63.7	67.6	69.0	73.1	71.3	75.8	11.9	12.1
Trinidad and Tobago	67.8	72.8	71.5	76.2	73.5	78.2	8.4	7.4

Source: Derived from United Nations, 1999

Population growth

According to table 5, population growth rate is either low or moderate in the Caribbean. The highest population growth rate during the 1980-85 period was recorded in Belize (2.6%), followed by Haiti (2.4%), Dominican Republic (2.3%) and Bahamas (2.0%). The lowest population growth rate during the same period was recorded in Barbados (0.3%), followed by Cuba (0.8%).

Belize is estimated to continue to record the highest growth rate during 2005-10 (2.0%). Haiti follows with 1.8% while Jamaica (0.9%), Trinidad and Tobago (0.7%), Antigua and Barbuda (0.5%) and Barbados (0.4%) are estimated to record low growth rates. Indeed, Barbados recorded low population growth rates for each of the periods in the study. This view is supported by International

Labour Organisation (1999: 43) which stated that Barbados “has a practically stagnant population growth”.

With regards to % change in population growth rates during the 1980-85 to 2005-10 periods, the largest decline is estimated to occur in Cuba (-62.5%), followed by Trinidad and Tobago (-58.8%), Dominican Republic (-43.4%), and Jamaica (-40.0%). The lowest % changes in population growth rate are estimated to occur in Belize (-23.1%), Haiti (-25.0%) and Barbados (-33.3%). No change is expected to occur in the population growth rate in Antigua and Barbuda.

Table 5. Average growth rates per 100 population, selected Caribbean Countries, 1980-85 to 2005-10

Country	1980-85	1985-90	1990-95	1995-2000	2000-05	2005-10	% change 1980-85 - 2005-10
Antigua and Barbuda	0.5	0.5	0.6	0.6	0.5	0.5	0.0
Bahamas	2.0	1.9	1.9	1.8	1.6	1.3	-35.0
Barbados	0.3	0.4	0.6	0.5	0.4	0.4	33.3
Belize	2.6	2.4	2.6	2.4	2.1	2.0	-23.1
Cuba	0.8	1.0	0.6	0.4	0.3	0.3	-62.5
Haiti	2.4	2.5	1.9	1.8	1.8	1.8	-25.0
Jamaica	1.5	0.6	0.9	0.9	0.9	0.9	-40.0
Dominican Republic	2.3	2.2	1.9	1.7	1.4	1.3	-43.4
Trinidad and Tobago	1.7	0.6	0.8	0.5	0.5	0.7	-58.2

Source: Derived from United Nations, 1999; and Yeboah (2000)

Population structure

The changes in fertility, mortality and longevity would affect the age structure of the population. The population aged under 15 years is estimated to decline in all the selected countries during the period from 1990 to 2020. A case in point is Belize where this proportion is estimated to decline by 17.6 percentage points from 44.0% in 1990 to 26.4% in 2020. In the Dominican Republic, the population aged 15 years and under is estimated to decline by 12.3 percentage points, Haiti by 11.7 percentage points, and in Jamaica by 10 percentage points during the same period. Barbados, Bahamas and Trinidad and Tobago are expected to record lower percentage points (table 6).

At the other end of the age distribution spectrum, significant increases are taking place in the proportion of the population aged 65 years and over. Cuba (15.8%),

Barbados (13.6%), Bahamas (9.0%) and Jamaica (8.4%) are estimated to record a higher proportion of elderly population. However, the largest % change in the population aged 65 years and over is expected to occur in the Bahamas (95.7%), followed by Cuba (88.1%), Guyana (84.2%) and Barbados (31.4%). Dominican Republic (1.3%), Trinidad and Tobago (4.8%) and Belize (16.7%) are estimated to record the lowest % change in the proportion of the population aged 65 years and over.

The proportion of the population in the middle age groups or working age group, i.e. 15 to 64 years, exhibited much fluctuation during the 30-year period from 1990 to 2020, and this was true for most of the selected countries.

Table 6. Age structure of the population, selected Caribbean countries, 1990-2020 (%)

Country	1990			2020			% change 1990 -2020 65 years +
	0-14	15-64	65+	0-14	15-64	65+	
Bahamas	32.1	63.3	4.6	23.2	67.8	9.0	95.7
Barbados	24.5	63.7	11.8	16.7	69.7	13.6	31.4
Belize	44.0	51.8	4.2	26.4	68.7	4.9	16.7
Cuba	23.1	68.6	8.4	16.2	68.1	15.8	88.1
Guyana	33.6	62.6	3.8	22.9	70.1	7.0	84.2
Haiti	44.2	52.0	3.8	32.5	62.7	4.8	26.3
Jamaica	33.2	60.0	6.8	23.1	68.5	8.4	23.5
Dominican Republic	37.0	55.3	7.7	24.7	67.5	7.8	1.3
Trinidad and Tobago	33.5	60.3	6.2	26.1	67.4	6.5	4.8

Source: Derived from United Nations, 1999

Urban population

Countries in the Caribbean vary in their level of urbanisation with the highest urban proportion in 1985 being recorded in the Bahamas (79.7%), and the lowest in Haiti (27.2%). In addition, Cuba (71.6%), Trinidad and Tobago (63.9%) and Dominican Republic (52.0%) recorded higher urban proportions, compared with Jamaica (49.4%) and Barbados (42.3%) during the same year (table 7).

In respect of projected urban proportion for 2010, Bahamas is again estimated to record the highest proportion of 90.9%, followed by Cuba (83.0%), Trinidad and Tobago (77.8%), Dominican Republic (65.0%), Jamaica (61.0%), Barbados (55.6%), Haiti (45.0%), Guyana (44.8%) and Antigua and Barbuda (40.5%).

The highest % change in urban proportion between 1985 and 2010 is estimated to occur in Haiti (65.4%). Guyana (41.8%), Barbados (31.4%), Dominican Republic (25.0%) and Jamaica (23.5%) are also estimated to record comparatively higher % changes in urban proportion. In contrast, Bahamas (14.1%), Antigua and Barbuda (15.7%) and Cuba (15.9%) are expected to record lower % changes in urban proportions during the 1985 to 2010 period.

Table 7. Urban proportion, selected Caribbean countries, 1985-2010

Country	1985	1990	1995	2000	2005	2010	% change 1985 -2010
Antigua and Barbuda	35.0	35.4	35.8	36.8	38.4	40.5	15.7
Bahamas	79.7	83.6	86.5	88.5	90.0	90.9	14.1
Barbados	42.3	44.8	47.3	50.0	52.8	55.6	31.4
Belize	-	-	-	-	-	-	-
Cuba	71.6	74.8	77.6	79.9	81.9	83.0	15.9
Guyana	31.6	33.2	35.4	38.2	41.5	44.8	41.8
Haiti	27.2	30.5	34.3	38.1	41.8	45.0	65.4
Jamaica	49.4	51.5	53.7	56.1	58.5	61.0	23.5
Dominican Republic	52.0	54.0	57.0	60.0	63.0	65.0	25.0
Trinidad and Tobago	63.9	69.1	71.7	74.1	76.1	77.8	21.8

Source: Derived from United Nations, 1999;

Discussion

The current low birth rate contrasts the situation in 1938 and 1940s when Barbados and the other Caribbean countries were noted for their high fertility rates. For example, Barbados was not only regarded as a high birth rate country, but singled out as a colony with absolute and acute overpopulation (Massiah, 1981). A Royal Commission Report described the situation at the time as

“The indefinite continuance of the present West Indian birth rates would seriously endanger the maintenance of even the present standard of living and might render nugatory any attempts to improve that standard” (UK West India Royal Commission Report, 1945 cited in Massiah, 1981).

The level of fertility in many Caribbean countries was still high up to the 1970s. For example, Yeboah (2000: 80-81) showed that CBR in Barbados was 17.4 in 1978, while TFR was 2.2 during 1975-80 (see also Massiah, 1981). Falling fertility has implications for declining proportion of the population aged under 15 years, with an inherent potential for lower school enrolment and pediatric services (see also Lockheed M E and A M Verspoor, 1999; and Miller, 1989).

In terms of the prevailing mortality levels and subsequent increases in longevity, the immediate implication is that the Caribbean will have an increasing population aged 65 years and over again with inherent implications for the provision of geriatric services.

In addition, increasing proportion of urban dwellers has implications for the provision of services in urban areas. More urban dwellers means an increasing number of people to provide urban amenities for, especially in the areas of health, education, transportation, waste management, water, food, power and telecommunications (Yeboah, 2000). Overcrowding is usually a likely consequence of increasing urbanisation, with the accompanying issues of inadequate shelter, food, water, employment, transportation and waste management.

Conclusion

An attempt has been made in this study to provide a demographic profile of the Caribbean using traditional demographic measures.

The study shows that fertility, mortality and population growth rates have been declining. In contrast, life expectancy at birth and the proportion of the urban population have been rising. Most of the countries continue to exhibit declining population growth rates and Barbados, for example, has been experiencing stagnant population growth averaging only 0.3%.

The study indicates that the Caribbean appears to be undergoing a demographic transition of its own, which seems consistent with some aspects of the traditional demographic transition.

The study points out that the Caribbean's transition will most likely impact on the structure of the population, resulting in decreasing proportion of the population aged under 15 years and increasing elderly population

References

International Labour Organisation (1999): Employment Policy in a Small Island Economy: Barbados. Port of Spain, International Labour Organisation Caribbean Office

Lockheed M E and A M Verspoor (1999): Improving Primary Education in Developing Countries. Washington, D C, World Bank

Massiah J (1981): The Population of Barbados: Demographic Development and Population Policy in a Small Island State. Ph D thesis, University of the West Indies, Mona

Miller Errol (1989): Caribbean Primary Education: An Assessment. Caribbean Journal of Education, Vol. 16, No. 3: 136-171

United Nations (1999): Statistical Yearbook for Latin America and the Caribbean 1998. Santiago, Economic Commission for Latin America and the Caribbean

Yeboah D A (2000): Increasing elderly migration and retirement planning in Barbados. Journal of Eastern Caribbean Studies, Vol. 25, No. 3: 80-88